Pamela Costes-Onishi *Editor*

Artistic Thinking in the Schools

Towards Innovative Arts /in/ Education
Research for Future-Ready Learners

Springer

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Foreword

I would urge all of those interested in future of the arts and aesthetic education to take note of this book. The need to give meaningful, relevant and wide-ranging empirical research to support the arts in education is addressed here, going beyond mere advocacy. *Artistic Thinking in the Schools: Towards Innovative Arts /in/ Education Research for Future-Ready Learners* is a timely book that not only examines questions that relate to the arts in education, it also identifies and asks new questions. It is informed by a wide-ranging exploration of the subject area from an international group of expert practitioners. Of particular value is the way that authors in this book challenge orthodoxies and question the basis upon which assertions are made.

In a subject area that in many countries is often marginalized, this collection of readable and scholarly papers helps establish a sound basis for meaningful developments in arts education. In so doing, it also helps bring the value of the arts to the attention of policy-makers and those in a position to bring the arts from the periphery to a more central place in the curriculum. Artistic thinking and the pedagogical processes and practices associated with the arts have much to offer other subject areas; these practices are well articulated here.

There are many ways in which an arts-rich education can enhance young learners' lives and prepare them for the future. Introducing the arts into learning environments helps strengthen cognitive development and the acquisition of life skills such as creative thinking, critical reflection and interpersonal skills. The arts also enhance social adaptability and cultural awareness for individuals, enabling them to build personal and collective identities as well as tolerance and appreciation of others. Through developing a knowledge and understanding of one's cultural heritage and that of others, the arts are well placed to accommodate the growing need for trans-cultural understanding. The arts, in addition, have a central role to play in understanding the world of feelings and imagination; through the arts, young people can explore feelings and be guided by their intuition in a way that is not easily achieved elsewhere. While promoting individuality and uniqueness amongst learners, the subject area helps develop an awareness of the spiritual dimension of life in addition to a sense of achievement and self-esteem. While it is said that we

know more than we can say, in these days of high dependence on the written word, artistic thinking can help young people learn to say what cannot be said.

Involvement in the arts, or to be more specific, creating and conferring aesthetic significance, is a fundamental part of human life and has been since the dawn of time. Recent archaeological investigations have discovered evidence of aesthetic activity that goes back further and further in time, well before the famous images at Lascaux and the musical instruments crafted from mammoth bones found in the upper Danube. This precious legacy needs to be nurtured, and it is through nations' public education systems—schools, universities and museums—that such nurturing is provided. This collection of authoritative texts goes a long way towards giving leadership and direction to such institutions.

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                                                                            Emeritus Professor
                                                                     of Aesthetic Development
                                                                      University of Cambridge
                                                                and Dean of Homerton College

Preface

The relevance of the arts in education has long been a point of discourse in educational policies. As a subject matter in the curriculum, it has often suffered a minor role compared to the sciences, mathematics and language literacy (Cawelti, 2006; Ewing, 2011; Hetland & Winner, 2001; Russell-Bowie, 1993, 2009; Stowasser, 1993; Winner & Cooper, 2000). Indeed, one of the most relevant advocacies for arts education is to demonstrate their usefulness in academic achievement (Butzlaff, 2000; Eisner, 1998; Krug & Cohen-Evron, 2000; Podlozny, 2000; Vaughn, 2000; Vaughn & Winner, 2000). However, there remains a gap in policies and implementation with regard to equity ascribed to core subjects globally despite evidences that point that education can learn from arts practices, specifically in nurturing habits of mind for real-life challenges (Krug & Cohen-Evron, 2000; Lorimer, 2011; Marshall, 2014; McPherson & O'Neill, 2010; Robinson, 2013). In their OECD report, Winner, Goldstein and Vincent-Lancrin (2013) identified, as a foremost reason, the lack of empirical research in the arts that would demonstrate strongly the transference and nurturance of the claimed skills, competencies and dispositions that are developed within these domains. The report concludes that because of the scarcity of true experimental research on the topic, the claims made by the majority correlational studies that the arts indeed have a positive impact on non-arts skills should not be accepted as conclusive. The few experimental studies reveal no significant causal impact.

In line with this thinking of the importance of empirical research that could provide evidences to the value of the arts in education, Gadsden (2008, p. 34) posed several questions: What is the nature of the empirical work that should be conducted? What are the questions that must be framed? What are the contexts to be studied and with what approaches? What interpretive lenses will emerge, and with what accuracy? What are the other ways (e.g. approaches, continua) that we can use to learn about, chart and understand change? She contends that the big question on the "effect of the arts on student achievement" should be re-conceptualized and that the concept of academic achievement itself be understood as "the broad and nuanced learning and teaching opportunities that prepare students to think broadly while honing in on the foundational abilities of reading, writing, and arithmetic and

the thinking, social, and emotional dispositions that allow for learning" (Ibid). This is similar to the recommendations in the OECD report cited above (Winner, Goldstein & Vincent-Lancrin, 2013) and the study by Hetland, Winner, Veenema and Sheridan (2006, 2013) that emphasize the imperativeness of examining empirically the "kinds of habits of mind developed in the arts" and how this affects two learning outcomes: acquisition of artistic skills and possible transfer of skills to other domains.

Artistic Thinking in the Schools: Towards an Innovative Arts /in/ Education Research for Future-Ready Learners is a book that documents and analyses the current trends and developments in arts research, both arts education and arts in education, which answers the big question of why the arts need centrality in educational policies globally. This book will be vital to global concerns in preparing students who are able to think broadly regarding real-world issues and who are equipped with social and emotional dispositions that are applicable in real-world situations. These shared global concerns, which are beyond education, make this book important to all stakeholders seeking to nurture future-ready learners, workers and thinkers that exhibit adaptive capacities for critical knowledge and innovation.

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<div align="right">Pamela Costes-Onishi</div>

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Part I
Setting the Context

Chapter 1
Introduction: Finding Evidences of Artistic Thinking in the Schools

Pamela Costes-Onishi

Abstract Scholarship claimed that the arts bear affordances in nurturing skills, dispositions and competencies that are increasingly needed in the education for the future. However, the evidences remain to be inconclusive. This chapter presents the main arguments and intentions forwarded in this book. It outlines how the chapters address current research and approaches to the arts in education that provide strong empirical evidences in establishing the claim that the arts indeed nurture future-oriented thinking skills and habits of mind. The intention is not necessarily to offer cause–effect links to address this gap in the current literature, but more importantly, to chart how research in arts/in/education responds to global needs through ground-based evidences using different methodological and pedagogical approaches that are rooted in a breadth of contexts: cultures, teaching and learning environments, disciplinary and interdisciplinary, student levels and student abilities.

The notion of academic achievement as measurable and achievable through domains that can be objectively tested is increasingly being challenged. There appears to be a consensus among policy makers, scholars, educators and practitioners that post-industrial and globalized economies of the twenty-first century require a distinct set of knowledge and skills necessary to compete in an increasingly knowledge-based society. The European Commission has identified seven "key competences" for tomorrow's world (European Commission, 2018). Other international initiatives such as the "New Commission on The Skills of the American Workforce" (NCEE, 2012), the "Partnership for 21st Century Skills" (P21, 2007) and the "Assessment & Teaching of 21st Century Skills" (Griffin, McGraw, & Care, 2012) have also done the same under the label of "twenty-first-century skills." While scholars such as Acedo and Hughes (2014) note that STEM learning, information literacy and concepts-focused learning are fundamental areas of knowledge in the twenty-first century, others believe that we need skills and dispositions beyond these in order to succeed professionally, personally,

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societally and globally. For example, Gardner (2008) proposes five minds for the future, namely the disciplining, synthesizing, creating, respectful and ethical minds. Additionally, the "OECD Skills Outlook" (2013, 2017), "OECD Skills Strategy" (2011) and the "OECD Innovation Strategy" (2010) have emphasized, among other things, the importance of fostering individual skills critical to personal growth and well-being in future societies.

Arts education is increasingly seen as a means to foster skills, competencies and dispositions conducive to innovation necessary in knowledge-based societies. Several initiatives are being implemented all over the world that acknowledge the significance of engagement *in*, *through* and *with* the arts in preparing future-ready learners (Comunian & Ooi, 2016; Hentschke, 2013; Long, 2015; Marshall, 2014; Robinson, 2013; Sirayi & Nawa, 2014). However, despite these efforts there still remains unanswered questions in how learning and teaching the arts can effectively nurture these much-needed skills, competencies and dispositions. Studies that present strong evidence that the arts indeed caused the development of such skills, competencies and dispositions are lacking. Thus, it is imperative that arts research be supported by all stakeholders in order to gain more understanding of education in each art form that can provide theoretical basis on the kinds of thinking inherent in artistic processes. Supporting research on arts/in/education will facilitate reaching their most effective impact in general education.

A metasynthesis of research in arts education (Winner, Goldstein, & Vincent-Lancrin, 2013) revealed that there are evidence-based studies that arts education improves academic skills such as IQ (intelligence quotient), verbal skills and geometrical reasoning; however, most of these studies were correlational and very few were conclusive. Likewise, empirical evidences on the impact of arts education on dispositions such as creativity and critical thinking have limited statistical power for generalization. Furthermore, effects on behavior such as motivation lack experimental studies that can solidify the claims that engagement in the arts causes positive behavior and social skills. In short, there is no causal evidence, yet, that links arts education to the following: overall academic performance, nurturance of creative and critical thinking dispositions and social and behavioral skills.

This book was conceptualized to look at current research and approaches to the arts in education that provide strong empirical evidences in establishing the claim that the arts indeed nurture future-oriented thinking skills and habits of mind. It is a conscious effort to highlight current research that responds to the changes in global needs for educating in the twenty-first century and beyond. As Bresler (2007) noted, research in arts education has always been affected by global trends, attesting that scholarship in the arts is entrenched within a larger perspective. The chapters in this book place the artistic thinking processes and creation in visual and performing arts at the center of learning, thus addressing the concern that advocating for the arts simply under the premise of twenty-first-century skills, competencies and dispositions would reduce them to an instrumental role catering to the "exigencies of economic globalization" (Choo, 2018; Logsdon, 2013). All chapters do carry a sense of advocacy for learning in, through and with the arts, but the importance of

these works rest on their thoughtful discussions through evidence-based research on what practices work in specific contexts and their outcomes in learning. The research approaches may not necessarily resort to experimental methods in order to provide causal evidence, but the intention is not simply to find cause–effect links to forward the claims that the arts can nurture future-ready educators and learners; rather, the intention is to examine how current research in the arts in various settings and practices provide answers to critical questions as posed by Gadsden (2008, p. 34): "What is the nature of the empirical work that should be conducted? What are the questions that must be framed? What are the contexts to be studied and with what approaches? What interpretive lenses will emerge, and with what accuracy? What are the other ways (e.g., approaches, continua) that we can use to learn about, chart, and understand change?" Thus, this book is a way to chart the direction that arts/in/education research took ten years hence. It is with sincere intentions that the evidences presented in the chapters would address the lack of empirical research that would place centrality to artistic thinking in the schools.

Artistic Thinking as Evidenced in the Arts/in/Education

In a UNESCO-commissioned study of worldwide research on the impact of arts-rich programs on the education of children and young people, Bamford (2006) explained the distinction between arts education and arts in education based on the actual implementation and perspectives articulated in more than 60 countries. Arts education is a "sustained, systematic learning in the skills, ways of thinking and presentation of each art forms," and the impact is on "attitudes to school and learning, enhanced cultural identity and sense of personal satisfaction and well-being" (Bamford, 2006, p. 71). Arts in education is evident when art is used as a basis to teach various other subjects such as numeracy, literacy and technology, and it is said to enhance "overall academic attainment, reduce school disaffection and promote positive cognitive transfer" (Ibid.). Based on this compendium, as generally understood and practiced in various global contexts, arts education is learning *in* the arts with the aim of developing skills and ways of thinking in each art form, while arts in education is learning *through* the arts with the aim of enhancing academic achievement and promoting cognitive transfer.

Gadsden (2008) stated that the reciprocal and interactional relationship between arts and education enable us to weigh the meaning of teaching and learning *in* and *through* the arts. She drew attention to the "role of the arts as a (re)source in educational theory, research and practice." Under this perspective, arts/in/education denotes the "centrality of art as both precipitator and repository of learning, teaching, and schooling" (Gadsden, 2008, p. 30). This means when we talk about the arts' relationship to education, regardless of learning *in* and *through* the arts, we are delving into how the arts and the associated thinking and behavior that ensue from its unique teaching and learning processes become the catalyst for educational theory, research and practice. Consequently, the intrinsic value of the arts in

education lies in the artistic habits of mind that are developed when students engage in them, and not so much in specific technical skills (although developing this is essential in any artistic process) related to specific domains. These habits of mind may have some collateral benefits for other subjects, but the latter should not be the sole purpose why the arts should remain vital in the curriculum. This implies that in doing research, it is more beneficial to focus on the habits of mind nurtured within the arts because their relevance to education is located precisely there. This is true whether, or not, the objective is to nurture the skills, competencies and dispositions for the changing needs of the globalized economies of the twenty-first century. Artistic habits of mind constitute the "hidden curriculum" of arts/in/education (Hetland, Winner, Veneema, & Sheridan, 2013). However, in order for research on engagement in the arts to become meaningful for educational theory, research and practice, the unique learning within the domains (music, visual arts, theatre and dance) must be empirically understood first before any studies on transfers can be effectively carried out. As the authors of studio thinking stress, before we can make a case for the importance of the arts in education or conduct successful studies on transfers, it is first necessary to "find out what the arts actually teach and what art students actually learn" (Ibid., p. 1).

There is an agreement in the extant literature that the impact of the arts in education manifests effectively when there is quality arts education pedagogy in the schools (Bamford, 2006; Winner, Goldstein, & Vincent-Lancrin, 2013). According to Bamford (2006, p. 89), "quality arts education is the result of interplay of structure and method" and that "content is of less relevance to quality than method and structure." This has several conditions such as active partnerships should be sustainable and long term (recommended at least 2 years); students should have access to high arts standards not only in their arts classes or cocurricular activities but also in their other subjects through an arts-rich curricula; in-service professional development should be provided to improve pedagogy in and through the arts; strong partnerships should exist between schools and cultural organizations through flexible boundaries in terms of schooling and planning for an arts-rich curricula; and the evaluation process of arts programs in the schools should be consistent.

This book is organized into topics of research on all forms of arts/in/education in order to ascertain whether "the role of the arts as a (re)source in educational theory, research, and practice" is being addressed by current trends in scholarship. Specifically, each chapter included in the book sought to demonstrate how arts/in/education effectively nurtures future-oriented competencies by responding to the general question, "How is research in the arts moving in the direction that would provide conclusive evidence of their centrality in nurturing skills, competencies and dispositions needed for the future orientations in education?" Contributions came from perspectives of scholars in the arts from different countries, while providing a deeper introspection of arts/in/education research in Singapore as a more-focused case through ensuring representation of studies in each art form. Having a country in focus also allows for a close introspection on how policy in the arts is specifically enacted and met by different stakeholders at various levels, albeit limited by

context. The global perspectives offered in this book allow for a more balanced analysis on the quality of research currently invested in the arts. They allow us to look at the alignment between policies and research, both ways: whether research is responding to gaps identified in the literature to present evidences to policy; and whether policy is responding to the recommendations presented by evidence-based research in order to achieve its goals.

Finally, "artistic thinking" in the schools as argued in this book refers to the habits of mind nurtured through pedagogical processes, or the teaching methods and learning structures, that result from engagement in, through and with the arts. Teaching and learning can take place within the arts subjects or using the arts as an integrated component in the mastery of other subjects. As the chapters in this book argued and demonstrated, artistic thinking manifests in all forms of education—formal, informal, non-formal—when the teaching methods and learning structures are rooted in the processes of creating and engaging in the art forms. *Artistic Thinking in the Schools: Towards Innovative Arts/in/Education Research for Future-Ready Learners* is about developing within the students the skills, competencies and dispositions that innovative artists intuitively apply in their creations, which includes the interdisciplinary scientific thinking that merges during the process.

Examining the Impact of Policies in the Arts/in/Education: The Case of Singapore

Coherence is said to be important in mobilizing educational change (Fullan & Quinn, 2016). There are four right drivers in order to achieve Coherence: capacity building, collaboration, pedagogy, and systemness (coordinated policies) (Ibid., p. 3). A coherent system starts with a large number of people and sectors understanding what needs to be done and them finding ownership in making things happen. It does not end when goals are achieved, as it is a continuous process of "efforts to make their systems, structures, and resources more compatible and their approaches to budgeting, staffing, and academic programming mutually supportive and reinforcing" (Johnson, Marietta, Higgins, Mapp, & Grossman, 2015, p. 161).

Singapore is known to be a highly efficient country where a coherent ecological system makes it the success story that it is now. The reason behind the success is in the continuous efforts to align national goals with policies and the responsiveness of different sectors, including education, in order to accomplish the visions. For example, educational reforms in Singapore have always been interlinked to national policies that respond to the pressing needs at the social, cultural, political and economic levels in order to stay competitive globally (Sharpe & Gopinathan, 2002). The following four main educational reform transitions in Singapore illustrate this link in the system (Goh & Tan, 2009; Heng, 2015): (1) Building a post-colonial education system: social cohesion and skill-building—"Survival-Driven Education" (1965–1978); (2) Building a system for an industrial economy—"Efficiency-Driven

Education" (1979–1996); (3) Building a system for a knowledge-based economy —"Ability-Driven Education" (1997–2011); and (4) Building a system for social cohesion—"Student-Centric Values-Driven Education" (2012–Present). Given this history, and its relatively new efforts to focus on the arts, Singapore is a good case to examine how coherence is achieved in forwarding local interests with a global perspective. It is an interesting case because of its resolve in steadily arriving at similar global goals within a short time frame, despite the internal tensions between intended reforms and enacted classroom practices (Curdt-Christiansen & Silver, 2012; Kadir, 2017; Wong & Apple, 2002).

Efforts to focus on culture and the arts started with a series of strategic long-term mapping contained in policy documents that resulted into important infrastructures and government bodies tasked to oversee the growth and direction of the arts in Singapore. The 1989 Advisory Council on Culture and the Arts (ACCA) has seen the establishment of the National Arts Council (NAC), National Heritage Board (NHB) and the National Library Board (NLB), along with fine art galleries and museums (RCP III, 2008). Ten years later, three Renaissance City Plans (RCP) were released in 2000, 2005 and 2008 that intensified the impact of the arts in education. This was followed later on with the Arts and Culture Strategic Review (ACSR) that seeks to map the growth and direction of the arts until 2025 (ACSR, 2012). In the RCP papers, Singapore established the goal of becoming a global arts city "where there is an environment conducive to creative and knowledge-based industries and talent" (RCP I, 2000, p. 4). It is believed that there are economic benefits accruing from creative industries and that to create a milieu that is conducive to innovations, new discoveries, and creation of new knowledge, local and foreign artistic and creative talents are needed. Subsequent reports identified seven areas of focus for the next phase of arts and cultural development formulated in RCP III (2008, p. 15). Of these, three areas resonate strongly with arts education in Singapore: (1) creating and promoting original and home-grown Singaporean works that highlight our diverse and unique heritage and traditions; (2) developing future audiences by putting more emphasis on the arts in education and arts education in schools; and (3) improving Singapore's tertiary arts education to give it more depth and providing better training for arts teachers in schools.

As a response to RCP III, there was a stronger investment in Singapore's educational infrastructure to support the arts (Comunian & Ooi, 2016) from 2008 to 2015. This led to the establishment of Singapore's first pre-tertiary school dedicated to the arts, School of the Arts (SOTA), in 2008; increase in funding for LaSalle College of the Arts and the Nanyang Academy of Fine Arts (NAFA) as the government officially recognized them as tertiary institutions; and the development of other creative infrastructure at higher-education level like the Yong Siew Toh Conservatory of Music (YSTCM). There were also new partnerships with international universities like the Glasgow School of Art and the Goldsmiths College of the University of London.

Complementing the RCP III, the Primary Education Review and Implementation (PERI) Report views the need for art, among other performance-based subjects, to be a mandatory curriculum subject in order to attain the goals of lifelong learning

and holistic education at primary schools where development of talents should start. It also articulates the objective of adding depth to arts education and increasing the quality of arts teachers in schools in its recommendation that "MOE needs to ensure that all schools have qualified teachers who are optimally deployed to teach these subjects" (MOE, 2009, p. 32). As a result, measures were taken at enhancing the educational landscape that include the establishment of niche areas in some schools which now take the form of Applied Learning (ALP) or Lifelong Learning (LLP) Programs that strongly support the focus on developing twenty-first-century competencies and values in students (MOE, 2018). Music and performing arts are believed to be one of the focus areas in which, specifically, LLP can be developed (Ibid). In 2011, two programs were established for the professional development of in-service visual art and music teachers. These are the Advanced Diploma Program in Visual Arts and Music offered by the National Institute of Education (NIE) in collaboration with MOE Curriculum Planning and Development Division (CPDD) and the MOE Singapore Teacher's Academy for the aRts (STAR).

Given the national goal of a distinctive global city for culture and the arts and the timely responses from educational sectors, it would seem like the arts are becoming entrenched within the Singapore society and steps are being taken to ensure that they remain anchored for the future development of the nation. Are similar tensions in the general educational reforms between the intended policies and classroom enactment present in these specific mappings for the arts in education? It is within this landscape that Eugene Dairianathan's Chapter resonates. This chapter provides a focused case study of an educator–musician whose personal artistic journey explores and examines the ways stakeholders view arts education and the different pathways that shape and impact an individual's growth and direction for specializations and lifelong learning in the arts. Dairianathan provides context on the choice of Singapore as the country in focus in which comparable issues in other contexts could be examined. As the author expressed, "Murale's individual experience—albeit in the singular—is potential and promise for further and future Educational research—Singapore as one of many case studies—to illustrate problems and prospects Arts education have around the world."

Preparing Future-Ready Teachers and Students Through the Arts/in/Education

Parts II to VI of this book were organized according to shared and connected themes. The overarching theme in which the chapters resonate is *Preparing Future-Ready Teachers and Students through the Arts/in/Education.* Most of the chapters can belong to one or more of the themes, and so each theme can offer insights that cut across the others. For the interest of organization, each theme would have two to four chapters under it. The themes offer evidences of the specific impact of the arts in education in nurturing future-ready teachers and students. The themes were

organized from teacher preparation to informal learning settings outside of the school. This would allow for a structured presentation and discussion of the research evidences beginning from how teachers are prepared to be future-ready; creating arts-based thinking pedagogical frameworks for classroom applications; examining implicit artistic processes in arts practices; impact of arts engagement to at-risk students; and ending on arts education in non-school settings.

Part II: Preparing Future-Ready Teachers and Students Through the Arts/in/Education: *Teacher Learning and Professional Development*

Teachers need new competencies and forms of thinking in the twenty-first century. There is a need to shift from traditional approaches such as cognitive-oriented teaching to more innovative pedagogies that are cognizant of interpersonal and intrapersonal skills, competencies and dispositions (Darling-Hammond & Bransford, 2005; Deng & Gopinathan, 2016; Schleicher, 2012, 2014; Scott, 2015). Teachers are now expected to teach higher-order thinking and performance skills to all types of learners, placing demands on teacher education "to design programs that help prospective teachers to understand deeply a wide array of things about learning, social and cultural contexts, and teaching and be able to enact these understandings in complex classrooms serving increasingly diverse students" (Darling-Hammond, 2006, p. 302).

The chapter by **Bee Lian Kehk** stated that reflective practice is a key disposition that visual art teachers must develop to address the "ill-structured" nature of the art as a discipline; that is, it would require multiple ways of responding to situations in the classrooms in order to craft an effective lesson that would nurture artistic thinkers among the students. She argued that the development of a teacher's Pedagogical Content Knowledge (PCK) is anchored on situated experience and reflection. Kehk also drew attention to the congruence of reflective practice and artistic thinking and learning. She said, "Reflective thinking, a core component to be found in artistic thinking, calls for sensitive seeing, detailed analysis, careful decision-making and the courage to experiment."

Similarly, the chapter by **Siew Ling Chua** and **Ai Wee Seow** emphasized the importance of teacher reflective practice through teacher inquiry. They stated the importance of teachers investigating their own practice in order to improve. Teacher inquiry projects, according to the authors, could enhance teacher professional knowledge and professional artistry; two concepts that are linked to PCK as they require competence in teaching according to the demands of specific contexts and knowing the reasons for choosing certain pedagogies. The authors examined how teacher inquiry projects assisted in the holistic development of music and visual art teachers, which included pedagogic shifts in perspectives and their artistic practices.

Part III: Preparing Future-Ready Teachers and Students Through the Arts/in/Education: *Pedagogical Frameworks*

As has been established in the opening discussion, the twenty-first century spurned a growing interest in education on the nurturance of skills, competencies and dispositions that would prepare teachers and students for the demands of the new globalized economy. This focus has received criticisms that the spread of twenty-first-century education frameworks is predominantly informed by Human Capital Theory (HCT), which shows positive correlation between education and economic growth, and that they have been conceptualized by transnational and governmental organizations (Choo, 2018). Likewise, in the field of arts education, there are concerns that advocating for a place of the arts in the curriculum through emphasizing their relevance to nurture the needed twenty-first-century skills, competencies and dispositions would reduce them to a utilitarian role for national economic goals (Logsdon, 2013). It was posited that the focus in advocating for the arts in education should be in the "habits of arts-centered inquiry" that would require the development of skills in the arts because "the acquisition of skills is a necessary part of becoming an artistically literate inquirer. With practice, skills develop into habits of inquiry, generating wider possibilities for further inquiry and growth" (Ibid., p. 52).

In **Julia Marshall**'s chapter, she proposed the Art Inquiry Integration (AII) framework, developed from arts-based research, as a form of arts integration for K-12 education. The initiative provides a new direction in education, which is a shift from learning about facts to an emphasis on meaning-making. This means the approach stresses that "art practices and thinking provide fresh ways of seeing as well as new and imaginative ways of thinking about and exploring academic knowledge." AII is "based on the notion that art practice is a form of inquiry, a way of exploring, interpreting and coming to understand any idea, topic or phenomenon through the lens and practices of art."

Caren Carino also proposed a research and inquiry-based approach in teaching tertiary contemporary choreography in dance. Her objectives include using the framework to develop critical and creative thinking skills. In this framework, she links the critical thinking "processes of observation, documentation, investigation and analysis" and the "creative thinking processes of conceptualization, exploration, experimentation, development and making." Through these processes, the students apply arts-based thinking skills and inquiry that dance choreographers use in order to create.

In another chapter on dance, **Deanna Paolantonio** introduced the *Work It Out* program to teach dance to girls using self-reflexive practices. Her framework allows teenage girls to see dance as a means to personal introspective expression through the body. According to the author, this strategy makes use of the "*inherently expressive nature of dance and choreography* to assist girls in conveying their experience of girlhood and how it is affected or related to their bodies and body image" (my italics).

Finally, **Pamela Costes-Onishi and Imelda S. Caleon** offered a framework for teaching multicultural music content based on the processes of community music teaching and learning. The framework facilitates students to develop artistic thinking dispositions through critically engaging and developing skills in community music. Evidences were presented that showed how arts-based structures of learning underpin the teaching of arts-based habits of mind. The approach emphasized how active music-making is necessary to develop artistic thinking in the primary and secondary music classrooms. The chapter provided context-specific evidences, which supported the theory that "when community music-based structures of learning (CoMu-based SL) is used as a framework in teaching general music education, twenty-first-century skills (critical musicality) and dispositions (artistic thinking) are effectively nurtured in the process."

Part IV: Preparing Future-Ready Teachers and Students Through the Arts/in/Education: *Artistic Processes*

Artistic processes are said to be intuitive. It is therefore difficult for an artist to articulate these processes and their effects through an end product. This is where research becomes important. Through these processes, the desired twenty-first-century skills, competencies and dispositions are nested. It is important to unpack these outcomes through empirical research in order to translate them for classroom learning. There are different artistic processes observed through research, and even though these processes may not fall into neat stages, they tend to be circular until the end product is created (Lichtzier & Peters, 2017). These artistic processes are believed to develop twenty-first-century skills such as creativity, critical thinking, communication and collaboration (Schuler, 2011) and habits of mind reflective of studio thinking such as Stretch and explore, observe, develop craft, engage and persist, reflect, express, envision (Hetland et al. 2013).

The chapter by **Leonard Tan** and **Pamela Costes-Onishi** aimed to make explicit those implicit artistic processes of learning in a school band in order to address the autocratic approaches prevalent in its pedagogy and implementation. The authors drew attention to the band as a performing arts ensemble as the point to examine its potential for developing twenty-first-century competencies.

Maria Varvarigou's chapter looked at how informal learning approach in the classrooms based on the artistic processes of popular musicians develops personal and collaborative creativity. She considers collaborative creativity as a salient twenty-first-century skill that musicians practice, especially popular musicians.

Finally, **Marina Sotiropoulou-Zormpala** offered an approach to arts integration constituting *aesthetic teaching*. She contends that aesthetic teaching is a new concept in which "the necessity of integrating the arts in all parts of curricula is substantiated by the *unique and indispensable benefits that flow from the artistic process*" (my italics). It is an approach to the curricula, wherein any academic

subject is taught aesthetically or more like art classes. For the author, "aesthetic literacy contributes to the formation of an individual's aesthetic identity, stimulates social and internal conversations which can lead the individual to cognitive changes and meta-cognitive processes, promotes lifelong learning and thus contributes to consciousness of one's existence."

Part V: Preparing Future-Ready Teachers and Students Through the Arts/in/Education: *Benefits to At-Risk Students*

The benefits of engaging in the arts to at-risk students have been noted in the literature. There is a wealth of research available in art therapy and psychotherapy found in journals dedicated to the topic, and we could also find evidences presented in education such as the impact of arts integration (Moyer, Klopfer, & Ernst, 2018) and arts-based research (Li, Kenzy, Underwood, & Severson, 2015) to at-risk students.

In her chapter, **Helene Robinson** developed an arts integration framework called Arts Integration Engagement Model (AIEM) for culturally diverse students. She defines culturally diverse students as those "who have a disability, are English language learners, low socioeconomic students, ethnic minority students, as well as other marginalized student populations." She pointed how in the artistic process, failure becomes a positive feature and this helps in the school success of culturally diverse students. It is the environment cultivated in arts integration that is focused on the process rather than on the product that facilitates success in learning and engagement through providing students the ability to express their vulnerabilities.

Imelda S. Caleon conducted a metasynthesis of group music-based intervention activities aiming to foster well-being among adolescents. Her objective is to find out the underlying mechanisms and outcomes of these interventions to adolescents exposed to stress and risk factors. She found the following themes to be salient in current literature: (1) music-based activities as catalyst for relationship building, (2) music-based activities as means for self-expression and self-regulation, and (3) music-based activities as a resource for self-transformation.

Part VI: Preparing Future-Ready Teachers and Students Through the Arts/in/Education: *Out-of-School Learning Contexts*

Learning spaces are now extended in informal contexts, whether they be in a literal physical space or inside the classroom using informal approaches. Jagušt, Botički, and So (2018) defined the different forms of learning—formal, informal, non-formal—as below.

> Defining the notion of formal and informal learning is challenging, and there is no straightforward way of doing so. Learning happens in a variety of settings and due to

different reasons and can be delivered by different sources of knowledge. In general, formal learning is organized, structured, and intentional, typically takes place in a school, and is delivered by a trained teacher (Werquim, 2010). In contrast, informal learning happens in life situations that come about spontaneously (Maarschalk, 1988), whereas non-formal learning emerges somewhere along the spectrum between the two aforementioned forms— it is partially structured and can have learning objectives (Werquim, 2010). Adding to the complexity, these forms of learning can occur across a variety of settings, with informal learning appearing in formal settings (e.g., students in school unintentionally learning out-of-school curriculum matters) or formal learning appearing in non-formal settings (e.g., a class trip to the museum; Sefton-Green, 2004). (p. 417)

In the context of the arts, such learning spaces also exist. For example, in music, informal learning is gaining ground using learning structures and processes of real-world musicians in the formal setting of the schools (Costes-Onishi, 2016; Folkestad, 2006; Green, 2008; Hallam, Creech, & McQueen, 2018; Rodriguez, 2009; Jaffurs, 2004; Vitale, 2011). In visual art, informal learning through museum pedagogy is seen as one of the viable educational directions for the modern, knowledge-based societies (Tišliar, 2017).

In the chapter by **Louise Salas**, the educative function of museums is explored and discussed. She argues that in the "wake of a constantly changing art scene and a challenging formal education program" confining to one form of learning is not sufficient to overcome the challenges of delivering quality arts education in the twenty-first century. Thus, holistic arts education is delivered in different learning spaces—formal, informal and non-formal.

Pui Ching Jennifer Wong looked at how playbuilding in an informal space of the neighborhood enables "a process to re-imagine and re-think identity and agency in children from low-income families in Singapore." Her chapter offers a narrative that illuminates the future challenges of young people and how through the collaborative and improvisatory processes in theatre-making, shifts in perspectives in how they can shape future identities that they embody become evident.

Part VII: Synthesis

The concluding chapter synthesizes the findings presented by the authors and reflects on the question posed in this book: "How is research in the arts moving in the direction that would provide conclusive evidence of their centrality in nurturing skills, competencies and dispositions needed for the future orientations in education?" Through the research evidences, methodological and pedagogical approaches presented in this book, we hope to find answers to this and other questions as inspired by Gadsden (2008) ten years ago. Thus, we now reformulate the questions as follows: What kind of empirical work was conducted and what else should be done? What are the questions that were framed and what else should we be asking? What are the contexts we have studied and with what approaches? What interpretive lenses have emerged, and with what accuracy? What are the ways (e.g., approaches, continua) that have been used to learn about, chart and understand change? In

revisiting these questions, we hope to establish how the education in and through the arts are used as an important resource for educational theory, research and practice. However, as with any good scholarship, this book does not attempt to offer final answers to these questions, but more along the lines of artistic thinking, this book intends to keep the dialogue open-ended in order to surface more arts-based inquiries for creative and critical thoughts in doing research in arts/in/education.

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Chapter 2
Arts Policy, Practice and Education: Questions of Use/r Values

Eugene Dairianathan

> *In no way do we believe in a fine-arts system; we believe in very diverse problems whose solutions are found in heterogeneous arts.*
>
> (Deleuze & Guattari, 1987, p. 331)

Abstract This chapter references a final year project by Music Education Specialist Tabitha Rajaratnam from the National Institute of Education, Nanyang Technological University, studying the musical pathways of Fellow Music Education Specialist Muraledharan Naidu (Murale hereafter), who successfully auditioned and played in an ensemble at the 2014 iteration of Esplanade's *Bright Young Things* jazz-based project. Rajaratnam's study raises questions. Was Murale mentored towards a staged performance at the end of the project? Who was involved in that mentoring process? Who were the agencies providing infrastructural support for mentoring Murale, among others, in and through *Bright Young Things*? What would have been the expected objectives and outcomes for such support? Was Murale's auditioned participation at *Bright Young Things* an outcome of a prior specialist rearing (specific instrumental proficiency in a specified genre), or was this an occasion for Murale to articulate an aggregation of multiple instrumental and genre pathways? What agencies were involved in Murale's enablement: familial, governmental—school in-curricular, co-curricular, vendor-in-school, national arts council in-school—programmes, private enterprise and peer teaching and learning, to name but a few? Murale's prominence and pathways—through Rajaratnam's study—identify connections Murale made and/or missed via the diverse agents and agencies. It draws out issues of practices of the arts, between specialist and generalist endeavour, and making connections between

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current endeavour and educational curricula. Finally, Murale's enablement raises questions of personhood in artistic aspiration and endeavour in current priorities of policy and practice.

> On the evenings of 24th and 25th July 2014, Murale [Muraledharan Naidu] (drummer) took the stage as part of the band, The Last Train Home, at the Esplanade Concourse as the culmination of their participation in the Esplanade's annual Bright Young Things programme for developing young jazz talents in Singapore. The Esplanade serves as an organized curatorial space, held in high regard, of and for Popular Music making (including jazz) in Singapore. However, its presence is only the tip of the iceberg. (Rajaratnam, 2014a, b, p. 4)

Drawn from a final year academic exercise from a former music education undergraduate from the Visual and Performing Arts Academic Group of the National Institute, Nanyang Technological University, this vignette serves as a means of exploring and examining the ways stakeholders view arts education (music being exemplary here in this discussion), the place of music and education in all venues and avenues, public sphere spaces as well as classrooms, and envisioning placement in and for music (the arts by implication) in education, not only for specialisms but also in and for society-at-large. Rajaratnam's academic exercise focuses on the participation by another music education graduate, Muraledharan Naidu,[1] during his undergraduate years as a trainee teacher.

Rajaratnam observes how earlier Murale had played drum kit and percussion,

> [at] two prominent events: the opening set for Taylor Swift's first concert in Singapore in 2011 and Leona Lewis's first performance at the inaugural Clash of the Continents Tennis Championships held in Singapore in 2012….His performances with the *Last Train Home*, 2014's Bright Young Things band, saw him fusing other drumming styles, including Latin rhythms. (Rajaratnam, 2014a, b, pp. 17–18)

Murale's participation in these events comprised venues and avenues in Singapore for local Jazz and local popular music performances, respectively. This recalls two aspects of avenue and attendant meaning-making through observing Murale's participation: "That this programme was hosted by and at the Esplanade returns us to this venue and opportunity for popular music making in Singapore" (Rajaratnam, 2014a, b, p. 18). Here, the Esplanade is both venue and avenue, as physical access and opportunity to participate in popular music and jazz practices given the caveat that as a performer, one would have had to survive an audition so that aspirant creator–performers were nurtured and nourished through mentorship by experienced professional practitioners. As audience however, access and opportunity were facilitated through this non-ticketed event.

The second aspect of avenue is the pathways prior to this point of arrival at such an event. Rajaratnam muses on these priorities:

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[1]https://www.youtube.com/channel/UCWrQbRbPPbRy3z0LmmxLjJQ—accessed 12 July 2018, Murale hereafter.

Musical meanings and experiences before one reaches this a/venue are what pave the way towards such a scene. Having at least 12 years of socialisation in a school context influences the individual to a large extent; their musical inclinations, behaviours and perception of the purpose or lack thereof of music. The case study of a serving teacher and popular music practitioner, Murale, reveals musical potential that the school appears to have had no role in harnessing. What if it had? Would there be a much richer music scene/mix to be seen in Singapore? (Rajaratnam, 2014a, b, p. 4)

Rajaratnam's observations bear some reflection. Musical meanings and experiences before one reaches any point of entry, notably Bright Young Things and the Esplanade, Singapore, remind us of the ways towards such avenues for local practices of jazz and popular music; available opportunity—audition as caveat—for aspiring and professional musicians replete with professional mentorship; and amenable, accessible, assessable, contemporary and relevant to any member of the public (or international visitors) wishing to attend such an event.

Rajaratnam's point in "presence"—as "tip of the iceberg" (Rajaratnam, 2014a, b, p. 4)—reveals points of re-entry of any specific event. Becker (1982) suggests how Art (read the Arts) is the purview of "joint activity" (p. 1). Becker's references are to support structures—event organization, logistics, ticketing and publicity being but a few—that enable and empower artists' conspicuousness in publicized space. That the Esplanade as one of Singapore's premier performing arts venues[2] is also an avenue, not only to internationally acclaimed performers and performances, but also to localized "critical mass building" and "capacity building" initiatives, in this case jazz. That the Esplanade is *venue* and *avenue* of and for such endeavour not only legitimizes local practices in a highly profiled performance space, but is also consonant with music's role in the Renaissance City Project—with the Esplanade as central space—"to provide cultural ballast in nation-building efforts" (MITA, 2000, p. 4, as cited in Dairianathan, 2009, p. 587). Moreover, *Bright Young Things*, as an Esplanade project, is exemplary counterpoint to such concerns that the Esplanade was, and has been, read by local communities as "othered" space; where and how "providing the 'hardware' (infrastructure and facilities) without concomitant attention to the 'software' (creative development)…is deemed regressive for the development of local/indigenous arts…" (Kong 2000, p. 419, emphases on hardware and software in the original text). That Murale successfully auditioned and participated in this project might raise the conspicuousness in the ways Becker articulates.

Following support systems as extension, that the Arts—and in this case the Esplanade—and jazz practices involve youth participation recalls not only that same "critical mass building" and "capacity building" initiatives in terms of personability, interactivity and programming through jazz (and other musical) performances but also of patronage and sponsorship. This raises the question of how the Esplanade and projects like *Bright Young Things* point to a connection with a publicly funded endeavour and enterprise as possible cultural, if not longer-term commercial "return on investment" through "critical mass building" and "capacity

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[2]https://www.esplanade.com/about-us/the-esplanade-story—accessed 17 July 2018.

building". Might there have been a fee involved for concert attendance? Might the ticket prices (if it were the case of ticketing) have adequately covered costs of logistics for a concert such as this or only defrayed the total (visible and invisible) costs of running such a project? Were there grants available for such endeavour, one in which cultural capital (or capacity building with a view to scaling) was part of community outreach?

Whatever the expense incurred for such project, the Esplanade—to achieve outcomes and/or objectives in running *Bright Young Things*—would have required not only technical and logistical infrastructural support but also some form of musical expertise as support, relying on requisite experience and expertise—from specialist mentoring in the specific musical genres on display—for mentees. Two human resource support systems come to mind: practicing gig musicians and institutions whose programmes and curricula support such practices. Apart from professional practising gig musicians in the commercial endeavour and one exception of a mentor from the Yong Siew Toh Conservatory of Music, most mentors have come from one institutional source, the LaSalle College of the Arts where Jazz is one of five specializations in their contemporary music diploma and degree programmes.[3] LASALLE College of the Arts remains in the present sole institutional source and supplier of jazz enterprise and endeavour with its international partner Goldsmiths College, London, UK[4] which contrasts with Euro-American-centric tertiary education institutions such as the Nanyang Academy of Fine Arts[5] (their music degree involves collaboration with the Royal College of Music, London, UK) and the Yong Siew Toh Conservatory[6] (whose degree programme while awarded by the National University of Singapore (NUS) is also made possible with a partner school, the Peabody Institute, USA). It is again instructive that all three colleges providing a specialist music degree (Euro-American and contemporary music studies notwithstanding) are *institutionalized* with an academic relationship with external music specialist institutions. The only institution at this stage offering musico-technical degree-level preparation is the double major Bachelor of Music (Audio Arts & Sciences Major) which involves a collaboration between the Yong Siew Toh Conservatory of Music and NUS. That one faculty from the Yong Siew Toh Conservatory, Associate Professor Tony Makarome, participated as a mentor at *Bright Young Things* is significant.[7]

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[3]http://www.lasalle.edu.sg/wp-content/uploads/undergraduate_prospectus_school-of-contemporary-music_ay201819.pdf—accessed 17 July 2018.

[4]http://www.lasalle.edu.sg/news/lasalle-college-of-the-arts-partners-with-world-renowned-goldsmiths-university-of-london/—accessed 17 July 2018.

[5]https://www.nafa.edu.sg/courses/degree/bachelor-of-music-with-honours—accessed 17 July 2018.

[6]http://www.nus.edu.sg/nusbulletin/yong-siew-toh-conservatory-of-music/undergraduate-education/degree-requirements/curriculum-structure-and-requirements/joint-degree-programme/—accessed 17 July 2018.

[7]https://www.soft.com.sg/forum/showthread.php?381407-Mosaic-Jazz-Fellows-(formerly-Bright-Young-Things)-is-RECRUITING—accessed 17 July 2018.

Murale's *absence* in participation in these specialist tertiary undergraduate music studies, but *presence* as student undergraduate music teacher successfully auditioned to participate in *Bright Young Things*, is significant to both Rajaratnam's study vis-à-vis observations of musical pathways for aspiring music-makers at such a project.

That these programmes inevitably involve artistic ingratiation and sensory imbibing also impinges on critical aspects of teaching and learning and the personable involvement (pedagogical discourses and discursive practices not only via instrumentality but also instructive as improvisatory strategies and tactics) in mentoring participants (as much as the auditions to participate in such a programme) towards the learning objectives and learning outcomes. What would seem to emerge from the previous paragraph would involve artistic technique-based curriculum and a time-honoured irreplaceable tradition particularly the individually based instrumental (including vocal) tutoring as an "indispensable, intense and intricate" part of instrumental and vocal learning (Gaunt, 2008, p. 230). Mentorship at *Bright Young Things* could only have involved itinerant and peripatetic support given the short-term nature of this project. There is little to suggest possibilities and/or prospects for *Bright Young Things* to have longer-term curricular programmatic structures, which could only have been possible through concerted *institutionalized* infrastructure programmes to enable neophytes to be confident and competent enough to make public performances initial demonstrations of their apprenticeship in such musical programmes.

Rajaratnam's point of Murale's presence, participation and practice in *Bright Young Things* (2014) raises questions of consequences of critical mass, capacity building and scaling; from public sphere praxis (both professional and amateur music-making) to classroom music-making in Singapore schools, not just ensemble playing as part of the co-curricular activity programme but also in-curriculum time classroom music-making. That Murale was participating as a student teacher at an initial teacher preparation degree programme at the National Institute of Education, Nanyang Technological University (the sole source of teacher preparation in Singapore), raises questions of such connectivities, specifically how amateur and professional music-making endeavour bear relevance and meaning with initial teacher preparation and classroom musical practice.

According to Murale,

> I started off with Tabla lessons…due to the strong Indian cultural background that I come from. Eventually, I was exposed to Western Pop Music and as a percussion player I naturally wished to learn how to play the drums. Even though I learnt how to play the drums through exposure to popular music, my musical interests were still in world music. Therefore, I was applying and emulating Indian percussion concepts and techniques into my drumming. Also, learning how to play the drums also created the exposure to other world musics especially Latin and Afro-Cuban music. I eventually found myself playing… world music genres for various cultural events. As such….I started off in other less mainstream areas of music. (Murale, e-mail communication, 10 Nov 2014 in Rajaratnam, 2014a, b, pp. 16–17)

Murale began with two years of formal tabla playing from age three and then learnt the tabla from his uncle from age five for the next eight years. He took up a three-year drum kit course at a local music school from age seventeen to twenty. Murale successfully auditioned to be part of the Singapore Armed Forces Music and Drama Company[8] as part of his two-year mandatory conscription (national service or NS) and was involved in providing music at SAF-based concert engagements where "…the music that we played catered to the masses…popular music…" (Murale, e-mail communication, 9 Oct 2014 in Rajaratnam, 2014a, b, p. 17). His stint at the Music and Drama Company was where he "got to know, and worked with a potpourri of musicians who in due course, became…contact cache for performances until this very day" (Murale, e-mail communication, 9 October 2014 in Rajaratnam, 2014a, b, p. 17).

After completing his NS, Murale applied to read music and physics at the National Institute of Education (NIE) and successfully auditioned to get into the BA Music Education Programme. Murale offered the drum kit as his main study (previous main study percussion students came either from a classical music background or had played tuned and untuned percussion as co-curricular endeavour in their Primary, Secondary or Junior college Wind Ensemble). Murale's instrumental tutor was Mr. Tama Goh, a local veteran drummer with a three-decade-long performing experience in popular, classical and jazz practices and much sought after live session musician.[9] Probably because of the confidence gained in having played drum kit and percussion at publicly profiled Taylor Swift and Leona Lewis concerts, Murale decided, in late 2013, to audition for the *Bright Young Things* programme as a means of "[plunging] deeper" into the genre of jazz he had come to "[appreciate] a lot more" (Murale, e-mail communication, 9 October 2014 in Rajaratnam, 2014a, b, p. 18). Murale is presently a serving teacher in an autonomous secondary school continuing to teach music.

Murale's owned beginnings into musical proficiency, confidence and competence bear some significance in Rajaratnam's study from a number of perspectives: teaching and learning pathways from formal through non-formal tabla learning; through private and then familial tutorship; formalized (read private institutional practice) drum kit learning which gained traction through his national service performances (informal and non-formal learning through a military institutional structure); learning the drum kit and a variety of other percussion instruments during his music education sojourn (formal teacher preparation and university-based structures), accompanying Taylor Swift and Leona Lewis popular music concerts (private enterprise institutional structure); and presently, as a formally qualified music teacher, teaching music in an autonomous secondary school in the Singapore Education Service.

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[8]https://www.mindef.gov.sg/oms/imindef/mindef_websites/atozlistings/mdc/home.html—accessed 31 July 2018.

[9]https://www.bandwagon.asia/artists/tama-goh—accessed 31 July 2018.

According to Dairianathan and Francis (2012), an overwhelming majority of students in music education at initial teacher preparation programmes at NIE have prior acquired specializations in "Euro-American art music traditions and instrumental skills of these traditions" (p. 93). That is not coincidence; given that when applicants audition for the initial teaching programmes at NIE, demonstrable musical competence is usually reliant on certification by an international grading system (based on Euro-American art music practice and tradition), which in Singapore has long-established currency (audition criteria have changed more recently to include more diverse musical practices and genres through certification <u>and</u> demonstrable performances). Lum and Dairianathan (2013, p. 343) have observed how in the Singapore context, a learner wishing to offer to study the Cambridge Board O-level Music examinations, required as prerequisite an ABRSM practical and theory certification (Grade 5). More recently, the Euro-American curatorial practice has been extended to post-primary education at the School of the Arts (a specialized arts school operating through the ambit of the Ministry of Culture, Communication and Youth—MCCY), which offers a six-year programme leading to the International Baccalaureate Diploma qualification as requisite for tertiary education, albeit not restricted to the arts.[10]

This raises questions, first, not only of competencies but also competence of a beginning teacher's curatorial practices in teaching music in the classroom commensurate with expectations of teachers teaching general music curricula for a Singapore classroom and a Singaporean context (contra Cambridge Examination Board O-level and A-level and the International Baccalaureate music curricula). The tabla was Murale's initial musical sensory imbibing,, formal, informal and non-formal (uncle as familial) learning. That the tabla was for Murale an instrument connected with his familial, sociocultural, as Indian and as Singaporean, is also instructive from another angle; would such an instrument have been available in classroom teaching and learning in his school-going years?[11] Might a/ny teacher whose school-going and tertiary education—in and through a Euro-American *musical habitat*—have acquired requisite competencies and competence to offer tutoring or tutelage for the tabla or drum kit for a young aspiring early learner, like Murale, in the Singapore classroom? Second, what infrastructural support might there have been to have allowed and enabled learners like Murale—in the endeavours of world, folk and popular music—to have brought such practices into teacher preparation and serving teaching communities? How will this have impacted individuals like Murale, first as performer–explorer and then as serving teacher in Singapore to facilitate discovery—as Murale did—what is taught and learnt in their classroom which is crucial for every teacher to *envision* potential and

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[10]https://www.sota.edu.sg/—accessed 31 July 2018.

[11]https://www.moe.gov.sg/docs/default-source/document/education/syllabuses/arts-education/files/2015_Music_Teaching_and_Learning_Syllabus_(Primary_and_Lower_Secondary).pdf—accessed 23 July 2018.

what holds importance in bringing in popular music to the classroom with meaning-making objectives and outcomes?

If, however, the tabla was—in and for Murale's initial stages—a part of higher stake privatized learning of a musical instrument, it could have been not much different from other better known instrumental study benchmarking structures (piano, violin, etc.) supported in through and by international examination boards like the Associated Board (ABRSM), Trinity College, Guildhall, London College of Music, Australian Music Board, Yamaha, Technics, Hammond, to name a few in the world of Euro-American practice and tradition. It is not clear if such prerequisites exist for local musical traditions and practices, not for want of present institutional infrastructures. For instance, the teaching and learning of Indian classical and folk instrumental studies through the Singapore Indian Fine Arts Society (SIFAS) is validated by the University of Madras, India,[12] while the teaching and learning of Chinese orchestra instruments is validated by the Central Conservatory of Music, Beijing examination board[13] as well as a more recent entrant, the TENG Academy[14] in partnership with the Confucius Institute, Nanyang Technological University, Singapore.[15] In the domain of popular music, Murale's drum kit learning at a local private music school, Yamaha Contempo,[16] would have been a Yamaha-based examination graded system, which has been in Singapore for more than five decades while a more recent entrant would have been Rock School.[17]

Both Murale's learning—tabla and drum kit—represent by now private enterprise practices and behaviours. Such established practices and behaviours are instructive parallel relationships between private tutoring and mainstream schooling for which the Ministry of Education makes clear their distinctions: mandatory general music programmes for a school-going population from ages 7 to 14, which lead into a Normal Technical (NT) music examination system involving collaboration between Singapore Examinations and Assessment Board (SEAB) and Cambridge University, UK.[18] A second strand involves the pursuit of practices in the Euro-American art music tradition and more recent world music additions through a Cambridge University examination board, which oversees the O-level and A-level examinations here in Singapore. There is also the International Baccalaureate examination board. Traditionally, students who read for their music degree in local universities come with either Cambridge examination or

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[12]https://www.sifassg.com/academy.html—accessed 17 July 2018.

[13]https://www.nafa.edu.sg/chinese-instruments-graded-examinations—accessed 17 July 2018.

[14]http://www.thetengcompany.com/academy/other-programmes/chinese-music-instrumental-grading-examinations—accessed 17 July 2018.

[15]http://ci.ntu.edu.sg/eng/Programme/Pages/Detail.aspx?event=9ef90016-78fa-4758-bd3f-960826fac617—accessed 17 July 2018.

[16]https://www.facebook.com/Yamaha.Contempo/—accessed 22 July 2018.

[17]https://www.rslawards.com/about-us/—accessed 22 July 2018.

[18]https://www.seab.gov.sg/content/syllabus/nlevel/2018Syllabus/6129_2018.pdf—accessed 17 July 2018.

International Baccalaureate (IB) qualifications. That Murale satisfied requirements to offer music and physics would have meant a Cambridge A-level pathway. That Murale did not possess O- or A-level music certification or ABRSM examination qualifications at point of entry to the NIE BA/BSc (Education) programme is instructive of a less conventional pathway to offer music as a major undergraduate study at NIE, NTU.

Given that Murale's tabla and drum kit pathways differed from the well-established specialist pathways in musical practices of the Euro-American art music tradition such as the O-level, A-level and IB diploma in music through compulsory school education, might Murale's choice of musical instruments and instru*mentalities* been cultivated, nurtured and sustained through the general music programme (GMP hereafter) to develop among generalist music learners in the school system access and opportunity for music creating, performing and responding to music as key elements?

The GMP programme is offered to all primary and secondary school-going students in Singapore schools as an *in–curriculum time* programme. An introductory paragraph in the document articulates how the programme,

> …is a key platform upon which every child is provided a basic music education, giving them opportunities to develop a connection to music. This contributes to the future development and preservation of Singapore's cultural heritage. Music, being an integral part of many cultures, also provides a means to raise global awareness amongst students. The processes involved in music performing and creating develop skills such as listening skills, fine motor skills, creative thinking skills and social skills. Music enables students to express their thoughts and ideas. The aims of the GMP are stated as follows: develop awareness and appreciation of music in local and global cultures; develop ability for creative expression and communication through music, and provide the basis to develop an informed and life-long involvement in music. (MOE, 2014, p. 2)

The GMP recognizes that specialist knowledge in a specified professional career in and through instrumental proficiency may or may not be the aim nor objective of a generalist or aspiring learner in and through music (or the arts). Non-professional music-making is more commonly located in music-making in popular culture compared with those involved in Euro-American art music practices, a not-too-dissimilar parallel which may be observed in leisure and competitive marathon running and football. Therefore, the document informs us of the ways these aims are organized around five learning outcomes (MOE, 2014, pp. 3–7):

1. Perform Music in both instrumental and vocal settings, individually and in groups.
2. Create music in both instrumental and vocal settings, individually and in groups.
3. Listen and respond to music.
4. Appreciate music in local and global cultures.
5. *Understand musical elements and concepts.*

The GMP document not only raises the values attached to participation in and through musical activities but also how the musical learning serves in character development and human citizenship in and among student learners:

The music classroom is a natural platform to nurture core values, develop social and emotional competencies…which will better prepare our students to thrive in a fast-changing and highly-connected world…and…represent the skills necessary for children to effectively manage their emotions and relationships, make responsible decisions and handle challenging situations…different competencies our children need to thrive in the globalised world. Together, these competencies will enable our students to tap into the opportunities of the digital age while staying committed to Singapore. The desired outcomes are attributes for Singaporeans upon completion of their formal education in Singapore. (MOE, 2014, p. 9)

The different competencies are identified with competencies in and for the twenty-first century (21CC) with attendant outcomes for such a learner as articulated in the Ministry's desired outcomes of education[19]:

The person who is schooled in the Singapore education system has a good sense of self-awareness, a sound moral compass, and the necessary skills and knowledge to take on challenges of the future:

- A confident person, who has a strong sense of right and wrong, is adaptable and resilient, knows himself, is discerning in judgment, thinks independently and critically, and communicates effectively.
- A self-directed learner, who questions, reflects, perseveres and takes responsibility for his own learning.
- An active contributor, who is able to work effectively in teams, is innovative, exercises initiative, takes calculated risks and strives for excellence.
- A concerned citizen, who is rooted to Singapore, has a strong sense of civic responsibility, is informed about Singapore and the world, and takes an active part in bettering the lives of others around him.

The Ministry of Education has also articulated the twenty-first-century competencies in a visual imagery[20]:

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[19]https://www.moe.gov.sg/education/education-system/desired-outcomes-of-education—accessed 17 July 2018.

[20]https://www.moe.gov.sg/education/education-system/21st-century-competencies—accessed 17 July 2018.

This imagery of the value of 21CC makes its own connections with a global agenda[21]:
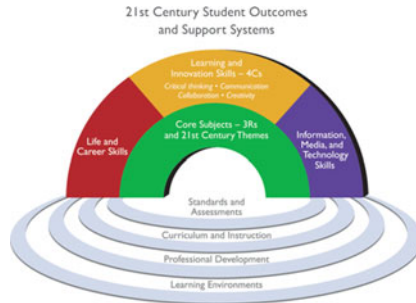
That the music classroom is seen as apposite venue and avenue for collective humanistic purposes has its prior roots in a Primary Education Review and Implementation (PERI) report that sought primarily to "emphasize non-academic subjects" [read as non-high-stakes-examinable subjects],

> …engaging pedagogy to teach skills and values, strengthen training of teachers in content mastery and in using a repertoire of generic and subject-specific teaching methods, [e]nhance the quality of…Music…instruction through optimal deployment of qualified teachers, [p]rovide schools with funds to engage trained…instructors and service providers approved by MOE to conduct quality…activities, as well as to procure equipment for…Music…activities, and [w]ork closely with the…National Arts Council and other relevant agencies to build up the pool of instructors…in the long run.[22]

In addition to the *in-curriculum time* provision for all school learners, further social and emotional competencies are made possible through opportunities in music-making beyond the classroom are available for music ensembles through co-curricular programmes which take place out of curriculum time.[23] Here, students are enabled and empowered to participate in string orchestra, choir, wind ensemble, to name but a few, and are connected to an annual competitive performance-based framework called the Singapore Youth Festival (SYF) with the same underlying aim and objectives and outcomes articulated in 21CC.

In respect of private providers of education, the Ministry of Education furnishes the following information and terms of reference:

> Current regulations require private schools conducting educational courses such as those stated above to be registered with the Ministry of Education (MOE). The state is the principal provider of education at primary, secondary and tertiary levels. In the case of non-formal education, the private sector plays the complementary role of running

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[21]http://www.p21.org/storage/documents/P21_Framework_Definitions.pdf—accessed   17   July 2018.

[22]http://planipolis.iiep.unesco.org/sites/planipolis/files/ressources/singapore_peri_2009.pdf—with specific reference made to pp.10–11 of the Summary of Recommendations.

[23]https://www.moe.gov.sg/education/programmes/co-curricular-activities—accessed 17 July 2018.

continuing/supplementary education classes in commercial/business studies, computers, languages, fine arts, tuition, etc."[24]

The Ministry of Education has made provision for external providers in the domain of art and music instruction through what is called the AMIS scheme[25] to support co-curricular programmes—namely instrumental coaching—provide enrichment programmes in schools. According to the website, "the role of AMIS instructors is to deliver the teaching and learning of the art and music subjects during curriculum hours which is different from the roles of PAL, CCA and enrichment instructors."[26] Again, Murale's narrative and pathways seem not to have included this arrangement in and through his schooling years.

What has emerged more clearly as a premium in music (and the arts) in the Singapore context is performance-based instrumental proficiency, either as individualized or individual-in-ensemble currency. An overwhelming number of graduates from diploma and degree programmes such as LASALLE College of the Arts, NAFA and Yong Siew Toh Conservatory of Music are performers, either in solo or ensemble capacities. Far fewer are composers and even fewer in academic scholarship and research. The one notable exception has been NAFA Diploma in Music Teaching Programme[27] whose partnership with the Ministry of Education (MOE) and the National Institute of Education (NIE) has resulted in diploma students being prepared for the education service through an intervention programme with courses in music education are taught at NIE by NIE faculty and part-time staff during their three-year NAFA Diploma stint. Upon graduation from NAFA, these students undergo a year-long Music Teaching Diploma at NIE. The Ministry of Education, however, makes clear in its primary objective of securing applicants with musical instrumental proficiency because of the identity of these students who "…will graduate with…a Diploma in Music (Teaching) from NAFA and a… Diploma in Music Education from NIE. Graduates from this scheme will be deployed to teach… Music in Primary schools."[28] Graduating students from the NAFA programme who do very well on their Diploma in Music Teaching Programme have been accepted towards reading for the BA (education) degree programme at NIE (which is ratified and conferred upon by NTU). Again the caveat, besides applicants being Singapore Citizens or Singapore Permanent Residents and be in possession of "at least 5 GCE 'O' Level passes including English as a First Language", is "…grades (e.g. at least Grade 6 Practical and Grade 5 Theory) from acceptable music examination boards or a pass in GCE 'O' Level Music." However, applicants "who are involved in musical groups and play a

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[24]https://www.moe.gov.sg/education/private-education—accessed 23 July 2018.

[25]https://www.moe.gov.sg/careers/teach/how-to-apply/teaching-schemes/arts-music-instructors-scheme—accessed 23 July 2018.

[26]https://www.moe.gov.sg/coaches-instructors—accessed 23 July 2018.

[27]https://www.nafa.edu.sg/courses/part-time/diploma-in-music-teaching—accessed 23 July 2018.

[28]https://www.moe.gov.sg/careers/teach/teacher-training-programmes/teacher-training-schemes-for-tamil-art-music-and-chinese#art-music—accessed 23 July 2018.

musical instrument are welcomed to apply. Applicants who are selected after MOE's interview must also pass NAFA's music audition".[29]

More recently, graduates from the Yong Siew Toh and LASALLE degree programmes have been admitted—after MOE and NIE scrutiny—into the Postgraduate Diploma in Music (primary or secondary specialization) programmes at NIE. While the initial sources and resources are students with instrumental proficiency, the objective remains the same; competent classroom music teachers in Singapore schools. A notable condition in these pathways is that all who meet with MOE scrutiny are effectively teachers-in-training with a guarantee—upon satisfying academic and practicum internship requirements—of a job upon graduation.

Murale's accounts from tabla through to drum kit and world music percussion—familial non-formal, informal and formal pathways—are notable for the ways the primary and secondary music classroom, NAFA, Yong Siew Toh Conservatory or LASALLE (where popular, world music and jazz would have been included as institutional curricular content and collateral) are not included as *avenues* in and for his musical learning nor is there mention of co-curricular or enrichment (assuming tabla instructors) programme musical participation. But the same questions may be asked of the music education programme at the National Institute of Education given that instrumental tutors are employed on a part-time basis and many of the music faculty have Euro-American art music training as their own points of origin.

That Murale should have met with Mr. Tama Goh as part-time instrumental tutor on his NIE Music Education Programme speaks of another stream of instrumental resource, practicing performing musicians. While a number of them are either faculty or part-time teaching staff at LASALLE, a considerable number ply their trade as musicians-for-hire, Mr. Tama Goh as prime exemplar. There are other practitioners who ply their trade as art and culture freelance providers in Singapore which has recently come to the attention of the Ministry of Community, Culture and Youth (MCCY) network working with the Ministry of Manpower (MOM) vis-à-vis more equitable employment ambience and support in their self-employed status.

> [This was in view of their observation resulting from an] …Arts and Culture Employment Survey 2016, approximately 47% respondents work primarily on a freelance basis. We recognise that more can be done to enhance sector-wide support for arts and culture freelancers so that they can focus on honing their talent and practice, to sustain a meaningful career."[30]

MCCY's identity, nature and role are drawn from previous initiatives to recognize the arts as part of Singapore's cultural ballast. In a publication by the National Arts Council, the Arts Development Plan which traces a brief history of the arts in the lives of Singaporeans from 1965 onwards:

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[29]https://www.moe.gov.sg/careers/teach/teacher-training-programmes/teacher-training-schemes-for-tamil-art-music-and-chinese#art-music—accessed 23 July 2018.

[30]https://www.mccy.gov.sg/~/media/MCCY-corp/COS/2018/facesheets/parl-sec-factsheet.pdf—accessed 23 July 2018.

Grassroots bodies organised numerous activities to showcase the cultures of different ethnic groups. Songs by Singapore composers were promoted to help inculcate "Singaporean values" and develop a sense of national identity. A National Theatre Company comprising the Singapore National Orchestra, Chinese Orchestra, Choir and Dance Company was established…in the 1970s and 1980s, attention turned to nurturing the fine arts and an arts community. The Singapore Festival of Arts was launched; the Singapore Symphony Orchestra was formed; and the Cultural Medallion was instituted to recognise artistic achievements….The economic recession in 1985-86 was a timely warning for Singapore to diversify its growth engines. The Advisory Council on Culture and the Arts (ACCA) was formed to study the role that the arts could play in a maturing nation. In 1989, the seminal Report of the Advisory Council on Culture and the Arts highlighted the indispensable contribution of the arts to the quality of life, a gracious society and economic development. The report recommended that greater investments be made in infrastructure such as arts centres and performing venues. It also called for a dedicated agency to be set up to promote the arts. In 1991, the National Arts Council (NAC) was formed. Key national festivals such as the Singapore Writers Festival and the Singapore Arts Festival were launched. An arts education programme was also initiated to cultivate an interest in the arts from the community at large.[31]

The presence of alternative teaching and learning means and ways in Murale's pathways—familial, informal and private enterprise as prime exemplars—makes notable connections with Zhan's (2014) studies which while focusing on a study in Taiwan with non-arts subjects are nonetheless relevant to the current discussion. Zhan identifies three possible positions of private tutoring: supplementary, complementary and/or competitive with mainstream schooling. How do these three positions bear out in any understanding of teaching and learning of music here in Singapore? Is there a meaningful discussion on an openness to accepting musical practices that are not Euro-American art tradition-based? Is there sufficient capacity and scale in the domain of education to be accepting and inclusive of the diverse musical genres and practices in mainstream schooling or supporting structures like co-curricular or enrichment programmes to enable individuals like Murale to excel in their own instrumental proclivities and proficiencies? When and where should such single instrument specialization be singular as opposed to arriving at singularity from plurality first, and at what age is that feasible? According to the most recent demographics (June 2017) on Singapore,[32] 29.4% of the total resident population of 5.61 million are neither Singaporean nor PR and share resources which include education and schooling. If almost 3 in 10 residents in Singapore are part of a diverse world-wide/r community, are there opportunities for these diverse cultural groups and their cultural endeavours available and accessible to a Singapore music classroom? 21.5% of marriages in Singapore in 2016 involved persons across different communities.[33] The Chinese, Malay, Indian, Other (CMIO)

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[31]https://www.nac.gov.sg/dam/jcr:18cf2883-7907-4938-9931-384333e210ce—accessed 23 July 2018.

[32]https://www.singstat.gov.sg/find-data/search-by-theme/population/population-and-population-structure/latest-data—accessed 17 July 2018.

[33]https://www.singstat.gov.sg/-/media/files/publications/population/smd2016.pdf, p. 8, accessed 17 July 2018 (the term in use is inter-ethnic; a term I prefer not to use).

construct continues as educational policy and practice in Singapore schools. Children out of these 21.5% of across-community marriages will emerge as a future resident population with mixed cultural backgrounds. Dairianathan and Lum (2012) have argued for a re-examination of Singapore's CMIO construct shaped music curricula in the light of "changing demographic patterns of persons residing in Singapore" and…"wider musical realities [not being] reflected in the school music classroom" (p. 111). Singapore's demographics suggest "the world is in Singapore" (Dairianathan & Lum, 2012, p. 125). The implications this has for music education are then discussed in relation to Jean Luc Nancy's "having-in-common" and "being-in-common" (Nancy, 2003, pp. 277–278). Music education has to consider the changing soundscapes within present-day Singapore because of the changing demographics, in order "to reflect cultures of both *having-in-common* and *being-in-common*" (Dairianathan & Lum, 2012, p. 116). Since this sense of "common" alters how individuals express their individual identities, should cultural plurality be made possible, beyond CMIO policy and practice?

These community, culture and genre crossings are well-established border crossings in musical practices. Should/n't both human and musical synergies reflect contemporary, relevant discussions in and through active musical participation through creating, performing and responding? Do they reflect gaps between alternative teaching and learning pathways that might not be available in a mainstream school system and structure like the general music programme? What should/n't an education in the teaching of musical genres, traditions and practices on international scale and scope represent? How much of education involving the teaching of musical genres, traditions and practices should/n't be national and international? What does/n't the teaching of musical genres, traditions and practices entail? How can/'t musical genres, traditions and practices be imbibed and given immersion effectively? What benefits are/n't accrued to immersion in musical genres, traditions and practices within the school culture and communities-at-large in Singapore and beyond? What is/n't the place for musical genres, traditions and practices in the school-going curriculum in educational policy? How can/'t a study of the ways in which musical genres, traditions and practices affect learners and impact future MOE policies, initiatives and practices? How important is it to distinguish musical learning and learning through Music?

Does Murale's sojourn in and through music and education suggest how alternative pathways create, collaborate, cooperate, conflict or compete with mainstream education for equality of access and opportunity to participate in the arts on a lifelong, lifewide basis? How have institutions participated or been connected with Murale's pathways to the present? What do Murale's pathways inform us of the nature, role and identity of private enterprise in education that the Singapore government—which would include the various governmental agencies, employment, culture and the arts and education—is cognisant of access and opportunity to participate in and through the Arts as the right of every person's *live/d* experiences in Singapore?

Murale's sojourn from familial through the community of musical practice as education officer has drawn out several connections: the immediacy of filial and

familial; formal, informal and non-formal; institutional infrastructure—read contemporaries, informal contacts, private tutoring enterprise, military institution (Music and Drama Company of the Singapore Armed Forces), tertiary institutions (National Institute of Education, Nanyang Technological University, Singapore), practicing musicians collective (industry and institution), the Esplanade, National Arts Council, Ministry of Education and in the present, post-structural communities of practice through informal personal choice music-making. This is probably not a comprehensive list of connectivities enacted through one person's *live/d* narrative in and through music.

Murale began with the tabla, learned the drum kit and extended his musical–cultural knowing to include Latin percussion, yet not forgetting rhythms and colours of his originary tabla learning. Murale began with filial and familial lines of pedagogy and has, by now, become well affiliated with his contacts in the gig musician community. Murale's *instrument*ality—as student teacher–musician—met a mentor Mr. Tama Goh with similar eclectic dispositions of instru*mentality* as *source and resource*. Murale is also part of a collective of music teachers in the Singapore Education Service.

Murale's account is instructive of the ways in which policies planned and implemented in the arts, specifically in arts education, to prepare students for the skills and dispositions needed for the future knowledge economy. That Murale is connected to the industry as a serving education officer in Singapore schools renders his requisite experience and expertise contemporary and relevant, if not accessible and assessable. That Murale's pathways seem to miss virtually all structures put in place to enable access and opportunity to musical proclivity and practice that he enjoyed and continues to enjoy may be seen as an apposite example of missed alignments; missed access and opportunities to participate and benefit from policy and practice; or perhaps deciding to give policy and practice a miss, to participate as individual right of access and opportunity to diversity and inclusivity. Murale's pathways indicate how different spheres of endeavour and practice respond in and through an individual in spite of (or despite) concerted and concretized initiatives such Renaissance City Plans, NAC, MCCY, MOM, MOE, PERI, 21CC, yet not missing out on a much-lesser-known enterprise of the Music and Drama Company of the Singapore Armed Forces who have for decades now acted as feeder stock to the privatized arts and culture industry boasting Cultural Medallion recipients and entertainment industry celebrities as their alumni. Or could Murale's pathways be indicative of the ways in which all of these concerted trajectories are more connective and cohesive than they are coherent across the different and deferent stakeholders? If so, support to build more arts-focused institutions to foment a global arts city may actually come about more successfully through far more diffuse connection information. It is precisely through Rajaratnam's study of Murale's pathways that the rise of the informal and non-formal structures renders Singapore exemplary in the "role of the arts as a (re)source in educational theory, research and practice".

This chapter began with an account on Murale's pathways. The humbling reality is that this account was only possible because a final year student was motivated by

her senior to research his pathways. Moreover, the content of her research study cleared peer review and was successfully presented at the International Association of Studies in Popular Music (IASPM-ANZ) Conference held in the University of Otago in New Zealand in December 2014. Summarily, Murale's pathways became a study of contemporary research study for Rajaratnam's final year project, and an opening to examining how research, practice and policies connect (or not) with educational reforms which have always been coherent with national goals for economic development.

Murale's pathways—through Rajaratnam's study—indicate the significance of the value of the arts [missed] in the curriculum, but that may gradually gain currency in actual implementation in spite of other priorities. Perhaps, Murale's pathways will have made conspicuous the relevance and resilience of practices of the arts in relation to sociocultural and human well-being, particularly when a general education officer in a secondary school makes real connections with current industry and allows for the flows between these worlds of endeavour through education.

Murale's account informs us of passing scrutiny to offer music and physics as his academic subjects at university. He fulfilled academic requirements (via A-level examinations) for physics but not for music. Yet it is his musical competencies and competence which mark him presently as an education officer. Murale's pathways still raise the question how future competencies can still be nurtured from a schooling system of core disciplines of the sciences, mathematics, languages and design. Is/n't there a clear/er vision on how knowledge gained from the arts seems to be integrated into the core curriculum? Did Murale know whether music or physics would emerge as his teacher identity? When did he come to this cognizance? Isn't it possible his physics background made for his musical proclivity or the other way around? Are locating relationships between both music and physics relevant at all?

One thing is clear from Murale's pathways, the coherence and resolve in his musical–cultural ad/mixtures. Murale is persuaded of the benefits:

> The purpose of bringing the music industry into the classroom is based on my philosophy of being a music teacher. In my opinion, nearly all teachers teach their respective subjects for students to acquire the skills needed for them to function in future careers that need these skills. Engineers for example, need to be able [to] function with specific knowledge from the fields of mathematics and the sciences. I believe that music should be taught in a way that students would acquire the skills necessary to function as music professionals in the future if they select that career path. Therefore, I feel that the best way to achieve this as a music teacher is to bring the industry to the classroom and teach music the way music professionals learn it. (Murale, e-mail communication, 10 Nov 2014, in Rajaratnam, 2014a, b, p. 21)

Rajaratnam noted that Murale created a module "Virtual DJ package" which he developed for students in his school for a simulated experience of a disc jockey to "teach students to think like musicians" in ways not dissimilar to "music professionals…in their line of business" (Murale, e-mail communication, 9 October 2014, cited in Rajaratnam, 2014a, b, p. 22).

Murale's pedagogical strategies—through his personal, philosophical, practising professional and pedagogical pathways—are telling of entrepreneurship. One participates in subjects and objects of inquiry and interest with a view to connecting with industry and in doing so makes connections with different subjects and knowledge, albeit varying levels of intensity. In doing so, one then makes hitherto unexplored connections that cross subjects and knowledge much like mixing musical genres and cultures, not very different from 21.5% of marriages in Singapore in 2016 between persons across different communities.[34] This admixture also returns to challenge and question, not only what constitutes music as epistemology and ontology but indeed any subject called physics, mathematics, language, STEM, etc. Challenges await in educational reform for the ways they disconnect and reconnect workplaces of a future and prepare to dislocate silo/ed knowledge to make more fluid a transition in relocating such knowing.

Murale's individual experience—albeit in the singular—is potential and promise for further and future educational research—Singapore as one of many case studies —to illustrate problems and prospects arts education have around the world: of the ways in which Educational policies implemented in practice, offer ways in individuals and collectives come to a cognition of the "formation of the forms of knowledge and the practices of veridiction; normativity of behaviour and the technology of power; and…constitution of the subject's modes of being given on the basis of practices of self" (Foucault, Davidson, & Burchell, 2010, p. 42), which would echo Deleuze and Guattari's (1987) assertion, "In no way do we believe in a fine-arts system; we believe in very diverse problems whose solutions are found in heterogeneous arts" (p. 331).

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Part II
Preparing Future-Ready Teachers and Students Through the Arts /in/ Education: Teacher Learning and Professional Development

Chapter 3
Art Teachers as Reflective Practitioners in the Classroom

Bee Lian Kehk

Abstract This chapter is part of a larger doctoral study, which explores beginning art teachers' Initial Teacher Education (ITE) experiences in the context of Singapore and examines the relationships between ITE and beginning art teachers' teaching practices immediately upon their completion of the training. The study specifically focuses on two pre-graduate ITE programmes: Diploma and Bachelor of Arts programmes for teaching. In this chapter, the writer presents one of the key findings from the original study. Using five case studies of beginning art teachers in five different government secondary schools, data gathered included schemes of work, lesson observations and semi-structured interviews. The data centred on understanding teachers' learnings during ITE, their views on their overall experiences during ITE and the ways their ITE training relate to their current teaching practices. The study employs Shulman's conceptual framework of subject matter knowledge (SMK), pedagogical knowledge (PK) and pedagogical content knowledge (PCK) to discuss the types of learnings beginning art teachers gained during their ITE. Shulman's model of pedagogical reasoning and action (PRA) further assists in associating beginning art teachers' knowledge and their teaching practices. The findings presented in this chapter suggest the need to strengthen art student teachers' capacities in reflective practice, a key disposition that is critical for art teachers in their own artistic thinking and teaching, as well as future development of their students as artistic thinkers.

Introduction

> Seeing, rather than mere looking, required an enlightened eye: this is as true and as important in understanding and improving education as in creating a painting.
>
> (Eisner, 1998, p. 1)

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In recent times, notions such as the "creative economy" and "knowledge economy" have caught the attention of governments all over the world; there is also a consensus among "economists, sociologists and policy analysts that creativity, design and innovation are at the heart of the global knowledge economy" (Peters, 2010, p. 71). The education system has responsibilities to nurture school-leavers to possess qualities such as "imagination, creativity, and enterprise needed for the 21st century" (Reyes & Gopinathan, 2015, p. 142). This heightened interest in the creative industries and knowledge economy inevitably resulted in renewed attention to and emphasis on the role of the arts in schools. Research has suggested that certain "cognitive competencies such as: elaborative and creative thinking, fluency, originality, focused perception, and imagination" were found in students from schools with positive climate for arts learning (Burton, Horowitz, & Abeles, 2000, p. 252). Similarly, studies have surfaced the tendency for art students to develop comparable cognitive habits through studio arts learning (Hetland & Winner, 2004; Winner et al., 2006). In addition to the ways of thinking that art can purportedly develop, art education in the twenty-first century is also positioned to provide students with meaning-making experiences so as to empower them to engage in contemporary cultures. With such promising values that art education augurs, it is thus necessary to know if and how ITE of art teachers is preparing prospective art teachers in fulfilling these expectations (Carroll, 2011).

The original aim of this study is to examine how Initial Teacher Education (ITE) influences the teaching practices of beginning secondary art teachers in Singapore. As a teacher educator, I often wonder if we are really effective in preparing our student teachers. What do beginning art teachers need to know and be able to do? How should we better prepare our beginning art teachers so that they do not feel that those years of ITE are wasted? Nonetheless, these questions cannot be effectively answered if there is a lack of understanding of what goes on in the art classrooms of these beginning teachers and the genuine desire to find out why they teach in certain ways. It is only when a better perspective is attained concerning these issues that ITE can then address the needs of beginning art teachers; it is only through finding out what beginning art teachers see as valuable, or not, in their learning at ITE that we, as teacher educators, can better design an ITE that addresses their needs. This leads me back to the quote by Eisner (1998) at the beginning of the chapter. I found that I needed to "see" and listen to what beginning art teachers do and say, in order to fully understand the complex relationships between teacher education and teacher practices. I should not make casual assumptions that as long as the programme or modules are sound, then student teachers will necessarily find them so. I also realise that by examining the relationships between teacher education and teacher practices, I am only focusing on one aspect of a highly complex performance, where the act of teaching is often the result of multiple variables coming together within the intricate social settings of schools.

The various gaps in the literature on art teacher education and beginning art teachers' teaching and my personal observations on the ground thus led to the study's focus on beginning art teachers' views of their ITE training and how they

perceive their learnings as linked to their subsequent teaching practices in schools. The research questions are framed as follows:

1. How do beginning art teachers perceive their learning during their ITE?

   (i) What knowledge bases and skills did the beginning secondary art teachers feel they had gained during their ITE?

2. How do they see the ITE training as informing their current teaching practices?

   (i) How do beginning art teachers make decisions in their teaching practices in the light of their ITE?
   (ii) What teaching practices related to what they claimed to have learned?

One of the key findings from my study is the beginning art teachers' limited capacity for reflective practice. Reflective teaching shares many similar characteristics with artistic thinking and learning. For instance, artists constantly make judgement about the visual qualities of their works and actively attempt to solve "problems" in their art making (Eisner, 2002), while teachers who engage in reflective practice make skilful judgements about the learning context to assist their students in their learning (Davis, 2006). Both artist and teacher operate in highly contextualised and fluid environments, which do not have step-by-step procedures to follow. The ability to be reflective is thus a fundamental feature of artistic thinking for both artist and art teacher.

Hickman (2011) used the term "practical sagacity" to refer to teachers who carefully reflect and bring together experience and knowledge in creating learning environments to elicit understanding from their students. He argued that effective teachers do so through "creative application of the wisdom gained from informed reflection on life experience" (p. 162). This creative and reflective process that transforms teachers' knowledge and experience into the practical application of classroom teaching is cyclical and consists of constant monitoring, appraisals and revisions (Pollard & Collins, 2005). This is very much akin to artistic and creative thinking.

Art Teachers in Singapore

The teaching of early art syllabuses was less stringent on the competency of art teachers, due to the government's perception of art being a platform for self-expression and stress relief. In fact, it was specified in the syllabus that it was "not necessary for the teachers to be personally proficient in art" (MOE, 1959, p. 2), but teacher's responsibilities were to ensure that students are interested in art and invest effort in their works. Such statements on the expectation of teachers' competencies in art have left corollaries that needed to be addressed subsequently in art teacher education.

The issue of art teacher education is critical, as the art syllabus since its inception has always been positioned as a "guide" and has allowed room for art teachers to interpret and plan lessons that cater to their students' abilities and interests. However, valid interpretation of the syllabus and effective planning of meaningful art lessons very much hinged on the quality of the art teachers (Bolin & Hoskings, 2015). Often, non-specialist teachers teaching art would associate techniques with art and "creativity". In the earlier days, handbooks for art teachers were produced by the now-defunct Curriculum Development Institute of Singapore (CDIS) and they provided rather formal and prescriptive approaches to art teaching. The emphasis on skills and techniques were at the expense of a more "expressive approach to art" (Hickman, 1990, p. 84). This, coupled with a learning culture in Singapore schools that has been very much centred on rote learning, memorisation and looking for the "right" answers, has resulted in teachers' preoccupation with technical skills in students' work. Many secondary art teachers had also regarded art as a form of vocational training for students who were not academically inclined. Such a mindset could be the result of previous policies on vocational training and art in the 1970s–1980s. While imagination, creativity, self-expression and art appreciation were themes found in all the syllabuses throughout the years, little emphasis was actually given to nurturing these abilities in the classrooms.

This phenomenon was also partly due to the issue of generalist teachers teaching the subject in primary schools. Many of these generalist teachers who were not trained in art or had little training teaching art (Chong, 2017; O'Shea, 1999); to make matter worse, some were assigned to teaching art to fill up their teaching hours. Without proper understanding about art teaching and learning, many generalist teachers teaching art approached art lessons in either a technique-driven way or allowed the students to do what they liked without proper facilitation. It was only after the Primary Education Review and Implementation Report (PERI) in 2009, where the committee recommended specialist teachers of art for primary school that new primary art specialisation programmes were launched in NIE. The inauguration of these new programmes was seen in 2011, and Diploma in Primary Art Education and Postgraduate Diploma in Education (PGDE) (Art Specialisation) (Primary) were the only first two programmes being offered. Subsequently, between 2014 and 2015, the Bachelor of Arts (Primary) (General) (2 Curriculum Subjects) was introduced. The new and revised Bachelor of Arts (Primary) programme differs from earlier programme where student teachers were trained to teach three subjects in primary schools and art was by default the third teaching subject. The new 2014–2015 degree programme reduced the teaching subjects to two, which parallels the Bachelor of Arts (Education) (Secondary) where student teachers are also prepared to teach only two subjects in secondary school. The new and revised Bachelor of Arts (Primary) thus allows for more focus on preparing student teachers to teach two subjects in primary school.

Meanwhile, with the latest art syllabuses' emphasis on conceptual thinking and inquiry-based learning, and the "O"- and "N"-level syllabuses requiring students to showcase their research preparatory process besides just technical competencies, a prescriptive approach to teaching art will no longer suffice in meeting the syllabus'

aims. Art teachers must be able to facilitate such learning in the art rooms, understand the inquiry processes involved in art and be able to develop these skills in their students. The emphasis on integrating art discussion with studio activities also necessitates a knowledge of art history and art criticism on the part of the teachers. Art teachers are expected to be able to contextualise the artists, art movements or mediums to make lessons meaningful and relevant to students' experiences.

As the role of art education in schools has evolved, so has the expectations of art teachers. Correspondingly, this calls for the ITE of art teachers to be "researched" and understood.

Knowledge for Teaching

The most common teacher education programme design relies on the "application of theories". This model assumes that teachers have to acquire knowledge that is essential for effective teaching in the classroom. This type of knowledge is usually known as "formal knowledge" and includes "general theories and research-based findings on a wide range of foundational and applied topics that together constitute basic knowledge about teaching" (Cochran-Smith & Lytle, 1999, p. 254). The relationship between knowledge and practice here is one of "for", and the assumption is that the greater the extent and the depth of the knowledge that teachers have, the more effective they will be at teaching. Formal knowledge is usually acquired during coursework in university-based pre-service teacher education. Such practice is common in other professions such as medicine, law and engineering.

Goodnough, Falkenberg, and MacDonald (2016) summarise the perceptions of "theory" in ITE from reviews of the literature. Firstly, theory is often seen as the "opposite" of practice as it exists outside of the context (usually the classroom). By this definition, all theoretical knowledge learned in coursework in the university ITE programmes is considered as theory, as the knowledge is gained outside the context of classroom practice. This gives rise to the constant debate on the theory and practice gap in the literature (Eraut, 1994; Feiman-Nemser & Norman, 2000). The second view of theory is that theory is produced through formal research, and commonly refers to theories as "educational theories" (Goodnough et al., 2016, p. 5), which are often viewed as prescribed, and meant to be used or applied in practice. There is the dichotomy of "production" versus "consummation" or "application" in this conceptualisation of theory. The problem with most empirical research on knowledge for effective teaching is the heavy influence of the psychological research tradition and the underplay of the contextual variables in complex, context-specific behaviours of teachers (Shulman, 1987). There are limited generalizable results on teacher effectiveness and by zooming in on the so-called variables of effective teaching, one loses sight of the "complexity and interdependency of teacher behaviour as a whole" (Shulman, 1987; Verloop,

Van Driel, & Meijer, 2001 p. 442). Lastly, theory can be understood as "principles and assumptions that guide actions" (Goodnough et al., 2016, p. 5) and it originates from the experiences or practices of teachers.

The tendency to focus on fundamental knowledge or expert knowledge for teaching is not without its detractors. One of the most common criticisms of this emphasis on formal knowledge is based on the theory-practice gap. This form of "knowledge for teaching" approach is perceived as prescriptive, and often, beginning teachers find that whatever they have learned in ITE may be incongruent with the realities of school. However, Ingvarson, Beavis, and Kleinhenz (2007) in a large-scale quantitative study on the factors affecting the impact of teacher education programmes on teacher preparedness in Victoria, Australia found that there was not enough evidence to support more "school-based" or "practical" (p. 377) teacher education in place of substantive content related to professional knowledge.

Sharing similar beliefs on the role of ITE against the background of teacher knowledge and what teachers should know in order to teach well, Shulman's (1987) conception of fundamental knowledge bases for teaching is useful for this discussion. His work has provided structures for the discussion of teacher knowledge, and most importantly, his proposition of pedagogical content knowledge, a type of knowledge that distinguishes teachers from content specialists, encourages further research into teacher knowledge. In summary, he opined that the knowledge for teaching should at least include the following (Table 3.1).

Grossman (1990) further developed on Shulman's work and condensed the types of knowledge to propose four domains of teacher knowledge: subject matter knowledge, general pedagogical knowledge, pedagogical content knowledge and context knowledge. However, besides an accumulation of knowledge for teaching, other researchers (Adler, 1993; Calderhead, 1989; Hatton & Smith, 1995; Korthagen, Kessels, Koster, Lagerwerf, & Wubbels, 2001; Zeichner & Liston, 2013) believe that effective teachers engage in critical reflection on their practice.

Table 3.1 Knowledge-base for teaching (Shulman, 1987, p. 8)

1	Content knowledge
2	General pedagogical knowledge, with special reference to those broad principles and strategies of classroom management and organisation that appear to transcend subject matter
3	Curriculum knowledge, with particular grasp of the materials and programmes that serve as 'tools of the trade' for teachers
4	Pedagogical content knowledge, that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding
5	Knowledge of learners and their characteristics
6	Knowledge of educational context, ranging from the workings of the group or classroom, the governance and financing of school districts, to the character of the communities and cultures
7	Knowledge of educational ends, purposes and values, and their philosophical and historical backgrounds

Reflective Practitioners

The discourse of teacher education has in recent times come to include the notion of teacher being reflective practitioner. With copious research carried out in the domain of learning, the classroom has come to be understood as a dynamic place where students of varying abilities and interests congregate to learn in a social environment that is complex and shifting. As a result, teaching is considered ineffective if teachers just apply what they have learned in teacher education schools without much thinking and deliberation since each classroom presents different conditions for teaching (Adler, 1993). Teachers need to be thoughtful in the applications of their knowledge and skills as knowing how to do something no longer suffice. Effective teachers are those who think while they act and continue to think even after the actions (Schön, 1983). Such a capacity to engage in reflective thinking will allow teachers to actively refine their practices to address the often unpredictable and highly complex nature of the classroom.

One of the earlier writings on reflective practice came from John Dewey. In his work, "How We Think" (1910/1997), John Dewey described in details the close relationships between "thinking" and "reflection". Dewey defined thinking as "that operation in which present facts suggest other facts (or truths) in such a way as to induce belief in the latter upon the ground or warrant of the former" (p. 9).

Thinking, to Dewey, is "to resolve an issue which involved active chaining, a careful ordering of ideas linking each with its predecessor" (Hatton & Smith, 1995, p. 33). Closely linked to thinking is the act of reflection, or reflective thinking. In fact, Dewey implied that reflective thinking is "good thinking" in that one does not accept any ideas without evidence but is willing to refrain from drawing conclusion until further inquiry. Dewey (1910/1997) described this cognition as "[a]ctive, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends" (p. 6).

Dewy saw reflection as "informing future action and be informed by evidence" (Davis, 2006, p. 282). The emphasis on reflective practice in teacher education is due to the increasing recognition of the limits of "technical rationality" (Schön, 1983, p. 37). By "technical rationality", Schön was referring to the "professional activity consists in instrumental problem solving made rigorous by the application of scientific theory and technique" (p. 21). Schön (1983) argued that there are limitations to technical rationality in professional practice simply because problems do not present themselves neatly. Instead, the emphasis on "problem setting" (p. 40) should be the focus in professional practice. This process of defining problem calls for judgement and decision-making on features of problem to attend to. Schön believed technical problem solving should therefore be placed "within a broader context of reflective inquiry" (p. 69). Schön (1987), in his later work, detailed two aspects of reflection practice. His ideas of "reflection-on-action' involve contemplating and considering one's completed deed and "reflection-in-action", on the other hand, is about an instantaneous judgement that brings about on-the-spot

behaviour or practice. As professional activity becomes routine, Dewey (1910/ 1997) believed that reflections on one's own actions will serve as ways to break away from spontaneous and habitual actions. Similarly, through reflective practice, a practitioner can investigate and question one's own tacit knowledge, assumptions and actions and arrive at new understanding of a situation (Schön, 1983, p. 61). Davis (2006) argued that there are "productive and unproductive" (Davis, 2006, p. 282) reflections that teachers engage in. Unproductive reflection "is mainly descriptive, without much analysis, and involves listing ideas rather than connecting them logically" (Davis, 2006, p. 282). On the other hand, when teachers participate in productive reflection, they actively integrate ideas from various knowledge domains, attend to multiple demands of the learning context and examine alternative ideas and approaches related to teaching and learning. Davis (2006) opined that student teachers may practise unproductive reflections most of the time if there is no support and practice for them to be engaged in such critical reflections during ITE.

Elsewhere, Loughran (2002) believed that while the definition of "reflection" ranges from simple description such as "thinking about something" to more "well-defined and crafted practice that carries very specific meaning and associated action" (p. 33), the mutual focus in these various characterisations of reflection is the concept of a "problem" (Loughran, 2002, p. 33) that needs addressing. How the problem is perceived, defined and reframed, according to Loughran (2002), will help us understand the attributes of reflection and the significance of reflective practice. Schön (1983) believed that this ability, which is one of the attributes of reflection, is extremely useful when practitioners face problems that they have not encountered before. They will need to revisit their original understandings of the situation, redefine the issue and conduct "frame experiment" (p. 63) on the issue—a different way of framing the problem in order to solve the problem. On the other hand, practitioners' inability to recognise a situation as a problem will lead to inaction from the practitioners. The ability to reflect, within this definition, is an important trait that student teachers should possess in learning to teach. Loughran's (2002) explanation of reflection is thus similar to Dewey's definition of "thinking", which involves solving a concern, as presented earlier.

Beyond defining what reflective practice is, Jay and Johnson (2002) presented a typology of reflection developed by instructors at the University of Washington. The dimensions in this typology consist of descriptive reflection, comparative reflection and critical reflection. Each of these reflection domains is supported by questions to assist students in learning to reflect. However, Jay and Johnson (2002) recognise that the complex processes of reflection cannot be reduced to sequential steps to be completed. It is also naïve to assume that student teachers will naturally become reflective practitioners just because they dutifully use the typology as strategy in their teaching. Furthermore, Loughran (2002) cautioned that teachers' explanation for their teaching behaviour is often mistaken for reflection:

> One might justify practice in terms of a particular way of approaching a situation because of specific knowledge or thoughts about that setting; however, rationalization is the dogged

adherence to an approach almost despite the nature of the practice setting because alternative ways of seeing are not (cannot) be apprehended. (p. 35)

This distinction between rationalisation and reflection is critical as it is indeed a fine difference between the two types of cognition. As mentioned in earlier paragraphs, reflection involves the ability to reframe a situation and think about solving this concern (Dewey, 1910/1997; Schön, 1983). Loughran (2002) explained that when teachers fail to identify students' lack of interest in learning, for example, as a problem within the context of practice, and instead perceives it as an issue arising from students' attitude and thus, not within the teacher's locus of control, it will lead to the teachers rationalising the problem away instead of looking at ways to address the issue.

Others such as McAlpine and Weston (2000) contend that reflection can bring about knowledge construction, especially when practitioners draw on their tacit knowledge and when the reflection process is anchored on actual experiences. Nonetheless, they questioned the relationship between teacher reflection and student learning, that is, if teacher's depth of reflection translates to better student learning. Larrivee (2000) also believed that when teachers truly become reflective practitioners, they no longer just rely on a "knowledge base of discreet skills" (p. 294) to teach. They will be able to incorporate their knowledge of skills and make adjustments to suit different learning contexts and even be able to create new skills.

Methodology

The study adopted a qualitative approach and used case studies to understand beginning art teachers' teaching practices in-depth and the impact between ITE and their practices.

Case Studies

Since the study aims to understand ITE's influences on art BTs' teaching practices, case study approach is suited to explore the intricacies of the relationships. Zeichner (1999) believed that "the reality of every teacher education program is so complex that it is virtually impossible to communicate that complexity to an outside audience short of the kind of systematic and detailed analysis that case studies provide" (p. 9). Case studies are useful when the research deals with "how" or "why" questions (Yin, 2003) and in situations where "our knowledge is shallow, fragmentary, incomplete or non-existent" (Punch & Oancea, 2014, p. 153). The issues that were being examined in this study can benefit from being deemed "explanatory" and "exploratory" case study designs (Yin, 2003, p. 6) to help generate concepts in the relationship between the ITE and BTs of art.

Three types of data were collected: interviews with BTs, video recordings of lessons conducted by the BTs and BTs' schemes of work (SOW). Interview data was key in addressing my research questions. However, video recordings of lessons were critical in appropriating the content of BTs' interviews. SOWs were sought to understand how BTs' design their lesson units, and although SOWs differed from school to school in terms of the content and structure, they were still useful in helping me understand the recorded lessons within the grand scheme of things.

Sampling

Purposeful sampling is exercised in this study in the form of convenience sampling as well as typical sampling. Convenience sampling occurs in the sense that all the cases had their ITE at the institution where I work, although they were from two different programmes. I had access to these teachers, as I had taught them before, so there was a sense of familiarity. It is not my intention to do programme evaluation of my institution; my research interest is to understand the roles and responsibilities of ITE on beginning art teachers' practices, so the focus is on the phenomenon, as exemplified by the five beginning teachers. I conducted purposeful sampling with a pre-specified set of criteria (Table 3.2).

Interviews

Resource-intensive one-to-one interviews were embarked upon instead of survey questionnaires, as the latter skims the "surface elements of what is happening, while interviews give the researcher more of an insight into the meaning and significance of what is happening" (Wilkinson & Birmingham, 2003, p. 44). The set of interview questions was sent to the participants before I met up with them individually for the interview. I interviewed each participant after the completion of their lesson recording, as some of the questions made reference to the lessons. Although video recording of interviews captures nuances of communication not captured verbally but through human behaviour (Wilkinson & Birmingham, 2003), I chose audio recording as some of the interviews were conducted in public places.

All the interviews with the participants started with a briefing on the purpose of the research and ended with debriefing, which gave a summary of the interview content, what I have learned from their sharing and an affirmation of their views (Brinkmann & Kvale, 2015).

Table 3.2 Criteria for sampling

Criteria for samples	
• Teaching experience	<1 year
• School setting	Government Secondary Schools that offer the General Art Programme

Video Recording of Lessons

Video data served two functions in this study: the purpose of contextualisation and triangulation. The lessons served as a point of reference when the participants discussed their teaching practices. Second, they served to validate findings from the other two data sources. I also wanted to collect various data types, as there is a limited understanding of what goes on in the classroom and especially research that examines the relationships between teacher education and teacher practices (Cochran-Smith & Villegas, 2015; Eisner, 1998).

Silverman and Marvasti (2008) advised researchers to keep recording simple: use only one camera. Following their advice, the recordings for the lessons were carried out using only one camera in each room. The camera was placed at the back of the classrooms or art rooms to capture BTs and the class at a wide angle. This allowed me to capture as much as possible the mood of the environment and lessons.

Schemes of Work (SOW) and the Analysis Processes Involved

The third set of data collected were schemes of work from the participants. The purpose of SOW analysis was to have a sense of the recorded lessons, since no lesson plans were written by participants. The SOWs helped to enhance my understandings of BTs' directions in their recorded lessons and served as additional contextual information for me to make sense of the participants' teaching plans. The SOWs were not all designed by the participants, since they joined the schools in end May and schools closed for holiday for the whole month of June (the lessons were recorded from July to September 2014). Most of the time the main objectives for the lessons were already planned prior to the participants joining the schools in the middle of the school year. However, this did not affect the usefulness of the data as a whole since the SOWs was to provide contextual understandings of the recorded lessons.

After coding all the various data types, I then proceeded with pattern coding (Miles & Huberman, 1994; Saldana, 2016) which required me to make inferences and look for explanations among the chunks of initial codes and cross-referencing the codes among the types of data. While performing this level of coding, I actively looked out for "themes, causes/explanations, relationships among people, and more theoretical constructs" (p. 70). This was also the second cycle of coding (Saldana, 2016). The patterns or themes I was looking for were informed by my research questions on BTs' ITE learning.

Findings and Discussion

Learning to Be Critical Thinkers and Be Reflective During ITE

One of the key findings from this study relates to the dimension of learning, which the BTs felt that they had benefitted from during ITE. While theoretical knowledge for teaching was identified by BTs as learning from ITE coursework, the disposition to be reflective was also surfaced when asked about other areas of perceived development at NIE. This is an important emergent piece of finding as it presents opportunity for ITE to deepen reflective practice in student teachers.

When asked about other learnings they had developed during their times at NIE besides the acquisition of theoretical knowledge, all the BTs mentioned about instances where they had the chance to engage in reflections. The following beginning teachers recalled times when they were constantly encouraged to be reflective during ITE:

> I think NIE taught me how to be a very reflective teacher. After I learn every lesson, reflect and reflect so (laughs). (BT2, 14:19)

> …those whom I've learned from is the way they (lecturers) prompt us questions to make us think further. (BT3, 55:06)

The BTs were also encouraged to examine their views and question assumptions of certain teaching practices. BT1 realised that "[art] *lessons need not just like, you know, the kids coming, you introduce, the kids do their work and at the end of it, submit*" (34:12). The constant encouragement directed at the BTs to reflect critically had helped them to make decisions about their own teaching:

> So it's kind of like, made me reflect that, and then I will find a balance, what I want to choose to bring into my lesson. (BT4, 38:24)

In fact, this push during ITE to reflect, think critically and creatively, and challenge views and assumptions during was so significant to the BTs that BT5 felt that she could further be helped to develop in this area:

> But maybe make us think more. Just like how we want our students to be. Make us think more and then make us question more. (BT5, part 2, 03:56)

This emergent theme garnered from the BTs' comments suggests the critical role of reflective practice in a profession (Schön, 1987). The analysis from the interviews shows that beginning teachers were aware of the important role that reflection plays in advancing their teaching and appreciated reflection as a critical aspect of their learning during ITE. The BTs in this study valued the times during which they were constantly challenged to be critical and reflective, and this piece of finding has deep implications on teacher education. Schön (1987) proposed that, in their daily work, professionals are constantly carrying out *reflection-in-action*, meaning thinking on your feet, and *reflection-on-action*, referring to considerations and

evaluations after an act is carried out (Mann & Walsh, 2013). Killion and Todnem (1991) further included the notion of *reflection-for-action*, in which the professionals use their experience to consider future engagements. Cochran-Smith and Lytle (1999) referred to such practices, usually undertaken by university lecturers during ITE to urge pre-service teachers to re-evaluate their own assumptions and thinking processes, as "knowledge in practice" (p. 269) concepts of teacher learning. Reflective practice plays a critical role in many professional education (Mann & Walsh, 2013). In teacher preparation, Zeichner and Liston (1987) believed that teacher education that focuses on only knowledge and skills transmission does not allow for self-directed growth. They argued that teacher education programmes that encourage reflective teaching are critical for the goal of professional development.

While BTs were urged by lecturers on campus and CTs in schools to be reflective about their own pre-existing conceptions about art and teaching during ITE, it was unclear how reflection was carried out, especially in using reflection to bridge theory or principles learned in coursework with their own teaching practice. It is important for teacher educators to be constantly aware of how student teachers understand the relationships between theory and practice (Goodnough et al., 2016). It is also prudent that teacher educators are sensitive to the changing needs of student teachers at different stages of their professional development, as well as the fact that each student teacher learns differently (Ibid.).

Although BTs did not provide ample details on how reflections served as a link between theory and practice, their positive awareness of that metacognition being nurtured suggests that they valued reflective thinking as critical to their development as art teachers. In fact, BT5's comment that she wished that she had been made to think more during ITE may imply that reflective practice is an area that could be further strengthened for BTs in Singapore.

Student teachers' reflections are powerful means for new knowledge creation. Mcalpine and Weston (2000) found, in their study, mathematicians who taught maths at the university but had no prior pedagogical training, were able to rationalise their teaching practices based on sound knowledge for teaching. They suggested that these mathematicians likely gained their knowledge about teaching from their classroom experiences and from critically thinking and reflecting on these experiences, thereby generating new knowledge about teaching maths in the classroom. Mcalpine and Weston's (2000) study thus implied the multiple dimensions of knowledge for teaching, which in this case, the functions of reflections and field experiences that generated new forms of knowledge for classroom teaching. As aptly pointed out by BT5, teachers should be urged to think, since they have the same expectation of their students. This, coincidentally, was one of the efforts by MOE in 1996 and was anchored on the tenet of "*Thinking Schools, Learning Nation*".

The Role of Reflection for Knowledge Integration, Application and Generation During Practicum

Teaching is a complex act, and it is an action that involves much thinking. In this study, BTs' teaching practices are guided, first of all, by their interpretative use of theories learned, which were then manifested as intentions for the lessons and eventually translated into actions related to teaching. In this multifaceted process, reflection exists throughout this whole trajectory from theory to actions. Mcalpine and Weston (2000) explained teaching as involving "[o]ngoing use of the processes of monitoring and decision making" (p. 366). These processes are part of reflection, and they are useful for building knowledge for teaching. Mcalpine and Weston (2000) also believed that reflection must be situated in experience. Practicum, as part of ITE, is a vital part in this whole complex process of learning to teach by experience. "Professional experiences" in the form of practicums are "opportunities for reflection on practice" (Le Cornu & Ewing, 2008, p. 1802). Putnam and Borko (2000) suggested that "teachers' learning should be grounded in some aspects of teaching practice" (p. 12) from the perspective of situated learning. This situative perspective does not oppose the possibility of the transfer of knowledge from ITE to the actual classroom but argues for the understanding of the characteristics of contexts or situations that best allow for learning.

BTs in this study felt that they had developed the disposition for critical reflection on their own practice and other educational issues during their ITE. One BT felt that this capacity could be further developed. This finding indicates that the BTs understood the intellectual aspect of teaching and recognised the importance of critical thinking and reflection. Lambe (2011) believed that teacher educators "must promote in the preservice teacher the belief that to be a critically reflective practitioner is their professional duty" (p. 15). Hence, the emphasis on developing student teachers' capacity to reason and critically reflect on their practice is imperative. Although BTs did not specify whether this capability should be emphasised during the practicum, the practicum does contain rich opportunities for the development of such professional traits. In fact, Schön (1988) considered practicum to be "reflective" and "rigourous" if only student teachers are confronted with "direct, recorded observation that permits a very detailed description of behaviour and a reconstruction of intentions, strategies, and assumptions" (p. 9). Mann and Walsh (2013) echoed similar views. They opined that reflective practice should go beyond "individual written version" (p. 309) to include practices that are "data-led, collaborative, dialogic and which use appropriate tools" (p. 310). Hence, strategy for reflection, especially on the valuable platform of practicum, should be reviewed.

One way to enhance the ability for critical reflection may be to allow student teachers to record some of their own teachings during the practicum as suggested by Schön (1988) and Mann and Walsh (2013). Such a process will provide data for student teachers to analyse their own practice, and any learning gained during the process will be "qualitatively different in value and meaning from when similar

assertions are passed on to them by a teacher educator" (Korthagen, Loughran, & Russell, 2006, p. 1029). Such personal discoveries may be further strengthened by discussions with NIE supervisors over the recorded teaching. This will entail devoting more time for NIE supervisors to visit student teachers during practicum (Korthagen et al., 2001), allowing NIE supervisors to "offer small theoretical notions fitting in with the process the student teacher is going through (phronesis)" (Korthagen et al., 2006, p. 1028). Teacher educators at NIE can thus better evaluate the rigour of student teachers' knowledge bases, which should be anchored on discussions about the student teachers' practices. After all, if one of the MOE's dictums, "Thinking Schools, Learning Nation" is to be realised, it will first require "Thinking Teachers" who are constantly monitoring their own practices for improvements.

Reflective practice is critical in art teaching as there is no "one" way of teaching the subject in schools. In fact, reflective practice is viewed as essential in helping to develop teachers' understanding of a subject (Zeichner & Liston, 2013). Art, being an ill-structured discipline (Short, 1995), allows for multiple ways of structuring lessons. The absence of prescribed art textbooks in Singapore primary and secondary schools is also not unusual since the national syllabuses act as guides for art teachers to plan their lessons. Effective teaching of art thus rests heavily on student teachers' abilities to engage in reflective practice, which needs to be strengthened at NIE. However, the most helpful methods to develop student teachers' reflective practice are challenges that warrant further research.

Recommendation

Capacity Building in Critical Reflection for Knowledge Integration and Generation

Deep domain knowledge for teaching does not stop at possessing strong subject matter knowledge. Student teachers of art should also have the abilities to select relevant art content and transform it to suit different learning contexts. Evidences gathered from other parts of this study show a heavy reliance on general pedagogical knowledge and subject matter knowledge by BTs for their decisions on their lessons and their teaching practices. This suggests that knowledge for teaching art in the classroom is one that is an amalgam of the various domains of knowledge. Reflection for student teachers of art thus becomes more critical as they need to learn to interpret and integrate general pedagogical knowledge, subject matter knowledge and knowledge of learners in their teaching. This is especially so as there is no "one" way of teaching art in schools. Instead of emphasising on students' interests and needs and neglecting the learning of content as found in this study, student teachers of art need to develop competencies in reflective practice to integrate different knowledge domains while at the same time, addressing various

demands of teaching. Giovannelli's (2003) study found that the more student teachers reflected about what teachers should know and be able to do, the more effective they were scored for their teaching by their field supervisors. This piece of finding suggests that the knowledge base of student teachers has a significant role to play in their learning to teach as it informs their reflections about teaching and, subsequently, their actual teaching in class. Reflection thus affects how student teachers utilise their knowledge and the quality of reflections implies the translation of knowledge into practice.

In addition, enabling student teachers of art to engage in reflection that helps them generate knowledge (Mcalpine & Weston, 2000) for teaching may address the finding which shows a gap between BTs' knowledge of art concepts and the lack of such emphasis during the actual teaching. In Shulman's PRA model for teaching, PRA involves reflection. Besides an accumulation of knowledge for teaching, other researchers (Calderhead, 1989; Hatton & Smith, 1995; Korthagen et al., 2001; Zeichner & Liston, 2013) believe that effective teachers engage in critical reflection on their practice. In the study, BTs did not regard theories or coursework as being lesser in value when compared to learnings during practicum. They did however appreciate practicum for its "participative" and "direct engagement" form of learning (Andresen, Boud, & Cohen, 1999, p. 225) that coursework could not provide. In this sense, practicum may well serve to build BTs' knowledge in art teaching, also known as pedagogical content knowledge (PCK), a critical component of teacher knowledge that was identified by Shulman (1986, 1987; Grossman, 1990) but was surprisingly not mentioned in the interview findings.

Grossman (1990) suggested that PCK includes "Knowledge of Students' Understanding" among other types of knowledge that constitute it. Following Grossman's (1990) proposition, this aspect of PCK where it involves situated knowledge of one's own students means that such conditional knowledge cannot be meaningfully acquired during coursework at ITE but only when student teachers are directly engaged with their students during the teaching process. Reflection on practice, I propose, is how the situated aspect of PCK is developed. McAlpine and Weston (2000) contended that reflection can bring about knowledge construction, especially when the reflection process is anchored on actual experiences, which in this case only practicum provides such authentic learning platform. Shulman's (1986) original description of PCK as "that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding" (p. 8) suggests that PCK is subject-specific and contextualised. However, the accumulations of PCK, which is subject-defined, special and unique to the teachers, may eventually develop and progress to inform general principles for teaching the specific subject. The capacity building on student teachers' reflective thinking thus needs to be acquired during coursework and be strengthened during practicum for BTs to develop their PCK, which is largely localised. The development of student teachers' PCK will reasonably hinge on reflection that is anchored on situated experience (Cochran-Smith, 2004; Mcalpine & Weston, 2000) and reflection, being an essential component of effective teaching in Shulman's (1987) model of PRA, cannot be neglected. Student teachers' ability

Fig. 3.1 Growth of PCK through situated learning and reflection

Application and Integration of Knowledge/Theories for Teaching through Situated Learning (i.e. practicum)

Reflections on Teaching

General Principles on Art Teaching

Generation of Localised PCK
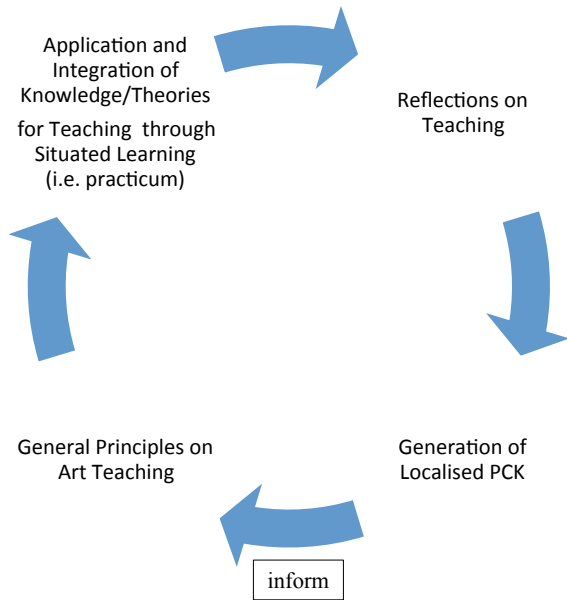
inform

to reflect on and reason with their own teaching to inform future decisions and actions is thus critical in their integration of theories learned for teaching and the development of their own PCK. Figure 3.1 illustrates the relationship between reflection and knowledge integration and generation.

Areas for Further Research

The exigencies of reflective art teachers capable of critical thinking require further explorations into the processes of art teachers' pedagogical reasoning. Research studies could focus more specifically on the use of reflection to bridge the practice and theory nexus. Although reflective practice is touted as an important characteristic of an effective teacher, how reflections should be structured and incorporated into art teacher education is not widely researched. The effectiveness of a framework for art teachers' reflective pedagogical practice, if it ever exists, also requires further methodical study. For instance, are there differences between experienced art teachers and novice art teachers' reflective practice? Comparative studies between prospective art teachers, art BTs and experienced art teachers' pedagogical reasoning, practices and reflections will be informative. Findings from such studies will be useful for teacher education institutions to more effectively prepare student teachers of art.

Conclusion

Reflections are powerful means for new knowledge creation. Reflective practitioners, as both artists and art teachers, generate knowledge for themselves and of themselves. Reflective thinking, a core component to be found in artistic thinking, calls for sensitive seeing, detailed analysis, careful decision-making and the courage to experiment. While my study has portrayed the needs of ITE to enhance art BTs' competency in reflective practice in the context of Singapore, more studies are still needed to explore how this can be achieved meaningfully.

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Chapter 4
Enhancing Professional Knowledge and Professional Artistry of Art and Music Teachers Through Teacher Inquiry

Siew Ling Chua and Ai Wee Seow

Abstract This chapter discusses how teacher inquiry projects that have been facilitated by Singapore Teachers' Academy for the aRts (STAR) could enhance professional knowledge and professional artistry of teachers. It posits that a range of research practices for different purposes should be explored to provide critical perspectives for professional learning and reflective practice. A systemic review of 60 articles written by art and music teachers in primary and secondary schools from 2013 to 2018 was conducted to find out the kinds of research conducted by teachers, and how they contribute to enhance their professional knowledge and professional artistry. The study found that there was a greater interest in pedagogical approaches and student learning experiences compared to musical processes, student motivation, student outcomes and professional development. There was also a preference for qualitative and mixed methods, and the review found perspectival and pedagogical changes in art and music teachers' professional knowledge and professional artistry. The chapter argues for the need for a diversity of methodologies and research to enhance the professional development of art and music teachers that respect various research paradigms in re-examining one's own pedagogical content knowledge and one's professional artistry, as there are multiplicities of art and music teaching practices, and teacher identities. The growth of professional knowledge and professional artistry will be enriched by such diverse inquiry processes that draw on the unique experiences and orientations of individuals.

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Introduction

This chapter discusses how art and music teachers' professional knowledge and professional artistry could be enhanced through teacher inquiry. It examines the kinds of teacher inquiry projects that have been conducted by art and music teachers in Singapore primary and secondary schools over the years, and how these have impacted their professional knowledge and professional artistry. The teacher inquiry projects are small-scale research projects conducted by teachers of their teaching practices in their respective art and music classrooms. They are facilitated and supported by the Singapore Teachers' Academy for the aRts (STAR), an academy set up to oversee the professional development of art and music teachers in Singapore schools, under the ambit of the Ministry of Education. The implementation of the teacher inquiry projects is part of the larger strategic focus in broadening arts perspectives and deepening of professional knowledge, and to grow arts teachers as reflective practitioners in a supportive and networked environment.

The chapter first explores the notion of professional artistry and teacher inquiry in the context of professional development at STAR. It then sets out the methodology on how the teacher inquiry projects were systematically reviewed to find out about the kinds of research conducted and how they contributed to enhancing professional knowledge and professional artistry. It is followed by a presentation of the findings in terms of the kinds of research topics explored, the methodologies used by the teachers, and the changes in perspective, pedagogy and practice as reported by the teachers. This is followed by a discussion of the key characteristics of the teachers' inquiry-based professional learning as manifested in the 60 articles. We conclude, using these empirical evidences, why a greater understanding and openness to different research paradigms in re-examining one's own practice would be useful for teacher inquiry even if these might not fall within the conventional research paradigms of academic research.

Enhancing Professional Artistry

Professional artistry is referred to by Schön (1987), as the competence 'display(ed) in unique, uncertain, and conflicted situations of practice' (p. 22). In examining the professional knowledge of teachers, we posit that *pedagogical content knowledge* (PCK) (Shulman, 1986) relates to teachers' professional artistry as it is about 'choosing a particular teaching procedure for a particular pedagogic reason linked to the particular content or concept for a particular group of students at a particular time' (Loughran, personal communication, 2017).

In enhancing the professional knowledge and professional artistry of teachers, professional development at STAR underlined the importance of developing the '3Ps', namely broadening one's own 'perspective', enhancing one's own 'pedagogy' and deepening one's own arts 'practice'. How each of these 3Ps is defined

	What	Why
Perspective	Teachers: • Appreciate the objectives of arts education that go beyond arts production • Understand how their disciplines contribute to holistic education, the strengthening of cultural appreciation and the Singapore identity, and the nurturing of 21st century competencies • Understand their roles as arts educators for nurturing artistic / musical sensibilities and impacting nation building • Appreciate arts industry trends	• To better engage students and make the arts subjects more relevant to students' understanding of the world around them • To cultivate sense-making and disposition-building
Pedagogy	Teachers develop: • An understanding of a varied repertoire of pedagogical practices and tools • An understanding of assessment skills and knowledge • The ability to reflect and analyse their own teaching practices	• To empower teachers to adapt pedagogical tools for their own lessons, and nurture reflective practices • To enhance the teaching-learning processes • To nurture teachers to become skilful and innovative art/music teachers
Practice	Teachers: • Build capacity by continually developing their own art/music practice	• To add breadth and depth to teachers' instructional practices and provide teachers with the language and versatility to engage students on deeper issues (on/related to the arts) in the classroom

Fig. 4.1 Professional development framework (STAR, 2011)

and why they are important is detailed in Fig. 4.1. Earlier research on professional development at STAR has found that the interaction of perspective, pedagogy and practice aspects in the professional learning process would increase teachers' confidence and competence (Lum & Chua, 2016). It is the interest of this study to understand how teacher inquiry projects relate to the development of the 3Ps and how they could enhance professional knowledge and professional artistry.

Teacher Inquiry

Teacher inquiry, also known as 'inquiry-based professional learning' or 'practitioner inquiry' (Groundwater-Smith & Mockler, 2009), 'inquiry communities' (e.g. Cochran-Smith & Lytle, 1999) or 'teacher research' (Cochran-Smith & Lytle, 1993; Kirkwood & Christie, 2006), could manifest itself in different forms such as lesson study, self-study and action research. The key notion is about the teacher investigating his or her own work to improve his or her practice. Teacher inquiry has been advocated as it recognises the active role in which the teacher plays in constructing knowledge through reflecting on his or her own teaching practice rather than being just passive consumers of research. Teacher inquiry, argued as a form of research (Beck & Kosnik, 2014), contributes to nurturing reflective practitioners so that teachers could re-examine their own tacit knowledge or craft knowledge (Leinhardt, 1990) in different contexts of their teaching through a systematic approach. Such practices have also been seen to bridge the gap between teacher research and academic research.

The legitimacy of teacher inquiry or teacher research has sometimes been questioned by more conservative paradigms of academic research. Scholars advocating for teacher inquiry have argued that teacher inquiry must not be seen as the same as academic research (Cochran-Smith & Lytle, 1993) and therefore have different quality measures (Groundwater-Smith & Mockler, 2007). In the area of arts education, we propose that teacher inquiry can be seen as a reflective arts practice as it is the 'involvement of mutuality, engagement with artistic materials, multiple perspectives, individual style, and transformative participation in artistic endeavors in which reflective processes are central' (Burnard, 2009). Hence, in this study, we see teacher inquiry fulfilling a purpose in re-examining and/or expanding the teacher's own professional knowledge, through engaging in a form of reflective arts practice, and as a consequence, enhancing his or her own professional artistry. Arguably, the measure of the usefulness of such teacher inquiry projects, therefore, must include teachers' own felt change in their own perspective, pedagogy or practice. In addition, the validity of these teacher inquiry projects in this study was strengthened through emic-etic interrogations and exchanges provided by a research consultant, mentor or peer community group who were working with the teacher(s). These insider–outsider professional exchanges and reflective conversations have been found helpful in revisiting assumptions and presuppositions in the teachers' interpretative frames in earlier music professional development projects in Singapore (Chua & Lum, 2013).

There were two approaches in which teacher inquiry was supported at STAR. The initial approach was an open-call for arts pedagogical research where teachers could propose research topics and funding requirements, which would support their professional development as well as the purchase of instruments and/or equipment related to their research. These proposals were evaluated by STAR and successful applicants would be supported through their research journeys by a research consultant, typically a faculty member at a university. The research consultant was likely to meet these participants as a group to provide them with an initial introduction to research, and then follow up with the participants individually on their respective projects, which had to be conducted within the year. The research could be conducted by an individual or a group of teachers.

However, the arts pedagogical research approach had been replaced by a second approach known as the critical inquiry networked-learning community for three reasons. First, while the research process engaged art and music teachers in reflective practice and impacted practices and beliefs, anecdotal feedback from participants revealed that the significant time and commitment required added to the teachers' already heavy workload. Second, while the research processes guided by research consultants were rigorous and sustained, the research process (from literature review to research design to formal presentation of findings in academic writing) might be more appropriate in an academia setting. A more practitioner-oriented approach to research and accessible presentation of findings would be more appropriate for the teachers and the fraternity. Third, the support provided by the networked-learning community created opportunities for dialogic exchanges that could enrich the learning for participants.

As such, the second approach invited teachers to indicate interest to be part of a critical inquiry networked-learning community. Their applications were evaluated based on their personal statements and their write-ups related to their teaching practice and belief, and personal areas of research interest. Successful applicants began their research journeys by participating in a study trip or conference as part of STAR's in-service provision of professional development. The purpose of the study trip or conference was to provide an immersive changed context for an intensive learning experience, and an opportunity to network with other arts educators so that they were given an opportunity to reframe their beliefs and practices. These teachers continued their 6–8-month critical inquiry journey as a networked learning community and were supported by a mentor at STAR who would act as a 'critical friend' and guide them in research and their pedagogical practices in their lessons.

Regardless of the approach taken, most teachers successfully completed their research or critical inquiry and had written an article, presented in either a narrative or through other visual means such as visual journals and infographics. These were published by STAR and shared with other art and music teachers. In an effort to encourage varied forms of teacher inquiry approaches, the editorials of a few publications continue to give attention to the variety of approaches. For example, in *Sounding the Teaching II* (STAR, 2018b), the editorial mentioned, 'these inquiry approaches aim to explore and unleash different perspectives and subjective possibilities … the approaches explored in this publication illustrate myriad ways of metacognitive thinking, ways in which we could collect data and analyse them to

Table 4.1 Overview of publications

Subject	Year	Title	Focus
Art	2013	Drawing learners: perspectives on art education	Twenty-first-century competencies and student-centricity
	2016	Serious play: perspectives on art education	Encouraging play, risk-taking and experimentation in students' thinking and artistic processes
	2018	Critical inquiry in art education	Self-directed learning; artistic inquiry; museum-based learning; and teaching actions
Music	2014	Essays in music pedagogical research: student-centricity in the twenty-first century	Twenty-first-century competencies and student-centricity
	2016	A reflective lens: music pedagogical research to transform practice	Twenty-first-century competencies and student-centricity
	2017a	Empowering student voice: developing the twenty-first-century learner musically	Twenty-first-century competencies and student-centricity
	2017b	Sounding the teaching: examining music learning experiences	Student-centricity and learning experiences
	2018	Sounding the teaching II: supporting and evidencing music learning	Music assessment

sound out our own teaching practices' (p. 9). Articles in both art and music publications are also deliberately designed and presented using infographics, moving away from conventional norms of text-heavy academic essays in communicating research. The overview of the publications is detailed in Table 4.1.

Methodology

A systemic review of 60 articles (32 art and 28 music articles) written by art and music teachers in primary and secondary schools from 2013 to 2018 was conducted. These represent all the research-related work that has been conducted by art and music teachers and that has been facilitated by the academy since her set up in 2011. The objective is to find out about **the kinds of research conducted by teachers in their respective art and music classrooms and how they contribute to enhancing their professional knowledge and professional artistry as reflected in their articles**. The review is guided by the following questions:

1. What kinds of research topics are being explored?
2. What methodologies are used?

3. What has been changed/transformed in the teacher in terms of his/her perspective, pedagogical practice or artistic practice?

In addressing the first question, all the research purposes of the articles were extracted, and a content analysis of these research purposes was conducted. The thematic coding was performed inductively. The content analysis found certain themes, which are discussed below. For the second question, we categorised the articles broadly into qualitative, quantitative and mixed methods research and were aggregated for interpretation. As there are several interpretations of mixed methods research, this study takes on Creswell and Clark's (2017) definition as collecting and analysing both qualitative and quantitative data, integrating the two forms of data and their results, organising these procedures into specific research designs and framing these procedures within theory and philosophy. For the third question, we drew out statements from the articles that suggested a change in the respective author's perspective, pedagogical practice or artistic practice, which were the 3Ps of STAR's professional development framework described earlier. These were then coded so that content analysis could be performed. We have conducted the content analysis for art and music separately leveraging our respective art and music disciplinary backgrounds. We then checked each other's coding to ensure a common understanding and application of the coding to enhance the reliability of our coding. The themes are discussed in the findings below.

Findings

Of the 28 music articles, 13 were written by primary music teachers and 15 were authored by secondary music teachers, revealing an approximately equivalent number of primary and secondary teachers who have successfully completed their research or classroom inquiry projects. As for Art, of the 32 articles published, 22 were submitted by secondary art teachers, seven by primary art teachers and three articles by art teachers teaching in junior colleges. This skew towards secondary and junior college levels art teachers was more apparent in the 2013 and 2016 publications where only two of the 21 articles were contributed by primary art teachers. Anecdotal conversation with one of the editors of the two publications revealed that secondary and junior college art teachers were more forthcoming in submitting research articles. Primary art teachers were either less interested or did not enjoy the type of writing required for a research article. The Art Unit at STAR made concerted efforts in the 2018 publication to include a more balanced perspective by presenting articles written by art teachers from across levels.

Kinds of Research Topics Explored

The kinds of research explored by the teachers are investigated by examining the research purpose of each of these articles and conducting a content analysis of these statements. The findings from the content analysis are presented in terms of themes, codes and the number of articles in which they could be found. The findings for music and art are represented in Tables 4.2 and 4.3, respectively.

Music

Table 4.2 Research purpose for music

Theme	Code	No. of articles
For music		
Pedagogical approach (19)[a]	Informal learning	6
	Facilitation strategies	3
	Eclectic mix of approaches	3
	Collaborative learning	3
	Orff	3
	Kodaly	1
	Co-operative learning	1
	Cumulative approach	1
	e-Portfolio	1
	Genre-based approach	1
	ICT-based approach	1
	Reflective practice	1
	Singing games	1
	Comparison of approaches	1
Assessment approach (7)[a]	Assessment rubrics	3
	Authentic assessment task/differentiated task	2
	Self-assessment	2
	Peer assessment/feedback	2
	Teacher evaluation	1
Musical processes (6)[a]	Arranging/composing and improvisation	3
	Song-writing	2
	Drumming	1
Student learning experiences (17)[a]	Student learning experiences (broadly)	10
	Self-directed learning	2
	Social learning/student interaction	2
	Flow experiences	1
	Musical learning	1
	Learning environment	1
	Student contribution	1
	Student thinking	1

(continued)

Table 4.2 (continued)

Theme	Code	No. of articles
Student motivation (4)[a]	Self-determination theory	3
	Grit	1
Student outcomes (8)[a]	Critical thinking/inventive thinking	2
	Active contributor	1
	Leadership	1
	Musical behaviour	1
	Musical understandings	1
	Student confidence	1
	Student response to pedagogy	1
Professional development (3)[a]	Teacher's reflective practice	3
	Mentoring	1

[a]In brackets are the total number of articles that have been found with the given theme. It should be noted that these numbers in the brackets do not add up to the total of 28 articles since there could be more than one theme coded in each article

It could be argued that to some extent, the spread of the research themes in music had been influenced by research agendas at STAR, akin to the way journals called for papers based on specific themes. For example, the first three music research publications (STAR, 2014, 2016a, 2017a) had promoted the theme of twenty-first-century competencies and student centricity. There was only one research article that dealt with the topic on assessment (STAR, 2017b) and it was not until 2018 when other inquiry into assessment began to appear since the theme then was on assessment (STAR, 2018b).

Apart from the overarching research agendas set by the academy, it could be seen that for the music publications, most music teachers investigated pedagogical approaches (19 articles) and student learning experiences (17 articles), revealing a greater interest in the direct processes of teaching and learning. There was a range of approaches explored. The most popular of the approaches was informal learning (6 articles). The interest might not be surprising since there had been workshops for teachers in the said approach. Indeed, one of the first research publications from STAR (2013a), which was written by the Music Unit at STAR, had already given much attention to the approach, which might have encouraged teachers' interest in the pedagogy. However, considering that Kodaly, Orff and Dalcroze pedagogical approaches have been offered as milestone programmes since 2011 and that only three articles focussed on the Orff approach and one article on the Kodaly approach, we could infer that there seemed to be little interest in furthering an understanding or an innovation of Kodaly and Dalcroze approaches. Perhaps, teachers were more interested in pushing the boundaries of pedagogical understanding through exploring other approaches, comparing approaches and exploring an eclectic mix of approaches.

What is of significance is that teachers did not just investigate their teaching, but they also gave attention to their student learning experiences (17 articles), ranging from broad student experiences (10 articles) to more specific areas such as musical learning (1 article), social learning (2 articles) and their contribution in discussions (1 article). In addition to student learning experiences, the interest in related student constructs such as student motivation (4 articles) and student outcomes (8 outcomes) also demonstrates teachers' keen interest in their students.

There are some articles (6 articles) that investigated the musical processes where teaching and learning were centred on. The musical processes researched upon were in the areas of arranging, composition and improvisation, song-writing and drumming, and were largely focussed on the creative aspects. Although not tagged to any pedagogical approaches by their authors, these pieces offer strategies to teaching music that privileges the musical experiences and are evidence of music teachers extending their pedagogical content knowledge and professional artistry in ways beyond the known methodologies.

There were only three inquiry projects (Chan, 2018; Losey & Yasin, 2016; Tan, 2017) that had focussed on the teacher's professional development. All three of them used an autoethnographic or a narrative approach that reflected upon their personal journeys. Amongst them, only one focussed on the mentoring of another teacher.

Art

Table 4.3 Research purpose for art

Theme	Code	No. of articles
For art		
Pedagogical approach (8)[a]	Play	3
	Interdisciplinary learning	2
	Choice-based learning	2
	Collaborative learning	1
Artistic processes (12)[a]	Experimentation	4
	Self-portraits	2
	Art criticism	2
	2D–3D	1
	Stop-motion animation	1
	Outdoor sketching	1
	Printmaking	1
	Repurposing materials (books)	1
	Visual journaling	1
Student learning experiences (19)[a]	Self-directed learning	6
	Engaging in elegant/meaningful art task	3

(continued)

Table 4.3 (continued)

Theme	Code	No. of articles
	Social learning/peer interaction	3
	Museum-based learning/art and artist	3
	ICT-infused	2
	Learning environment	1
	Modelling studio habits of mind	1
Student motivation (7)[a]	Student engagement	4
	Student voice	2
	Tri-facet motivation	1
	External reward	1
Student outcomes (9)[a]	Critical/creative decisions to communicate artistic intent	6
	Embrace experimentation and risk-taking	4
	Students reflective art practice	4
	Thinking creatively/innovatively	3
	Express personal experiences and perspectives	2
	Accountability to self and others	2
	Mastery of medium (general)	1
	Students confidence	1
	Thinking through drawing	1
	Visual literacy	1
Professional development (8)[a]	Theory and practice	6
	Collaborative exchange	1
	Professional development design	1

[a]In brackets are the total number of articles that have been found with the given theme. It should be noted that these numbers in the brackets do not add up to the total of 32 articles since there could be more than one theme coded in each article

As for Art, the research themes for the 21 articles in the first two publications were determined by the research agenda of the academy. The focus for *Drawing Learners: Perspectives on Art Education* (STAR, 2013b) was on twenty-first-century competencies and student-centricity while in *Serious Play: Perspectives on Art Education* (STAR, 2016b), play as pedagogy was the overarching theme. The Art Unit at STAR did not propose a research agenda for the 2018 publication as the idea was to empower the 11 art teachers to focus on a scope of interest or an area of curiosity in their respective teaching practices. Interestingly, their research themes did not stray far from previous years'; 10 of the 11 articles addressed student-centric approaches, which included choice-based learning, self-directed learning, collaborative learning, reflective art practice, and privileging students' voice and artistic intent. The research focus for the 1 article was on professional learning design framework for art teachers, which still addressed empowering the adult learner and providing choices for professional development.

While 'play' was not directly addressed in the 2018 publication, the larger idea of experimentation, risk-taking and making critical decisions was apparent in 4 of the 11 articles.

Most of the research themes for Art centred on student learning experiences (19 articles) and artistic processes (12 articles), with less emphasis on pedagogical approaches (8 articles). More interest in practice-led research might not be surprising since art teachers have always been asked to consider how students were learning what was being taught in the art classroom. Seven articles addressed both student learning experiences and artistic processes, investigating specifically how the types of learning experiences might impact or influence students' creative outcomes. Further, nine of the articles discussing artistic processes were examining student outcomes in terms of artistic dispositions (9 articles) and social behaviours (2 articles) instead of skills and techniques. The focus on these student outcomes was in line with one of STAR's professional development agenda to broaden art teachers' perspectives to go beyond art production and cultivate sense-making and disposition-building in our students.

Research themes that revolved around student motivation were primarily on ways to engage students (4 articles) and include their voices (2 articles) so that they might be more invested in art making. In these cases, student engagement and student voice were not outcomes of creative explorations but as factors affecting creative explorations. The authors in another two articles that investigated on the impact of external reward (Grosse, 2013) and tri-facet motivation (Lee & Soh, 2016) acknowledged they needed further research as their small-scale and short-term study only scratched the surface of their understanding of student motivation.

Six of the eight articles that revolved around the research theme of teachers' professional development either addressed tension between theory and practice (2 articles) or showed how they put theory into practice (4 articles). One article encouraged art teachers to broaden perspectives while another article asked art teachers to deepen practice. Sukaimi (STAR, 2016b) advocated for collaborative exchange with local contemporary artists so as to familiarise with contemporary art practices and themes, which would be more relevant to students in the art classroom. Finally, Heng (STAR, 2018a) was the only one whose research participants were art teachers, and his research focus was on teaching actions with the purpose of informing his department's professional development framework.

Methodologies Explored

Categorising the research articles according to their methodologies employed was not always straightforward. For example, one of the research article (Wong, 2017) involved content analysis as the main methodology and was a thematic analysis of students' discussion, turning qualitative data into a quantitative one. For this study, it was categorised as 'mixed method' since there were both quantitative and qualitative procedures, also taking cognisance that content analysis has its fair share

of controversy as to whether it belongs to a qualitative or quantitative paradigm (Krippendorff, 1980). Table 4.4 lists the types of research method that was used as well as the number of research articles that adopted each of these research methods.

For both music and art, it can be observed that the methodologies employed are largely qualitative or involving mixed methods, perhaps showing a more interpretive and pragmatic inclinations, respectively. Nevertheless, the range of research methods has been large as can be seen in the 14 different types of research methods in 28 music articles and 12 different types of research methods in 32 art articles. For music, case studies (4 articles), observational studies (4 articles), narratives (4 articles) and descriptive research (4 articles) seem to be more common approaches adopted. Amongst the narratives, there are elements of fiction used to engage readers' empathy. For example, Tan described of her narrative, 'The characters in my story are fictitious but the events recounted are real' (p. 60). Chan (2018) described her narrative as a 'story [that] is reconstructed from field notes of the entire research process', which painted a vivid picture of the actual classroom practices and experiences to provide a more nuanced understanding. For art,

Table 4.4 Methodologies

Theme	Code (in terms of research method)	No. of articles	
		For art	For music
Qualitative (13 music; 15 art)[a]	Case studies	1	4
	Observation study	3	4
	Autoethnography/narrative	1	4
	Thematic	–	2
	Questionnaire	–	1
	Reflection journal	10	1
	Interpretive	1	–
Quantitative (4 music; 2 art)[a]	Causal study	–	2
	Comparison of test scores	–	1
	Questionnaire	1	1
	Quasi-experiment	1	–
Mixed methods (11 music; 15 art)[a]	Descriptive research involving both qualitative and quantitative data	8	4
	(Quasi-) experimental and descriptive	4	3
	Comparison	–	2
	Causal and descriptive	–	1
	Content analysis	–	1
	Descriptive (with quantitative data) and autoethnography	1	–
	Descriptive (with quantitative data) and reflection journal	1	–
	Questionnaire and observation study	1	–

[a]In brackets are the total number of articles that have been found with the given theme

reflection journals (10 articles) and descriptive research (8 articles) seem to be the most common approach. It was also interesting that three art teachers chose to present their research in different ways, moving away from written essays to graphic forms. Mei (2013) presented his research in the form of a graphic novel while Dahri (2018) presented hers as pages from her visual journals, sprinkled with hand-drawn graphics and hand-written notes, reflecting their respective art practices. Goh and Selamat (2013), on the other hand, presented their research in scrapbook style layout to mirror the cut-and-paste process used by students in the art project being studied. The differences in the approach could likely be attributed to the differences in the nature of the discipline, and the way teachers were more inclined to express their inquiry and understanding.

Changes in Perspective, Pedagogy and Practice

The teachers' explorations and learning as described in their respective essays have been coded inductively and categorised according to the 3Ps (perspective, pedagogy and practice). Table 4.5 lists the codes that label the kinds of changes

Table 4.5 Changes in perspective, pedagogy and practice

Theme	Code	No. of articles
For music		
Perspectival change (27)[a]	Impact of pedagogy	9
	Understanding student learning, student attitudes and student experiences	8
	Teacher belief	7
	Contextualising pedagogy	3
	Impact of musical processes	1
	Mentoring practice	1
Pedagogical change (15)[a]	Approach to teaching musical processes (composition, singing, song-writing, process)	4
	Approach to teaching non-musical specific processes (reflection, self-assessment, feedback, rubrics)	4
	Approach to creating supportive learning environment/ supporting student ownership/harnessing social learning wall	3
	Approach to informal learning	2
	Approach to curriculum planning	1
	Approach to teaching that enhances flow experiences	1
Practice change (2)[a]	Music practice	2

[a]In brackets are the total number of articles that have been found with the given themes. It should be noted that these numbers in the brackets do not add up to the total of 28 articles since there could be more than one theme coded in each article

experienced by the teacher as painted in their accounts and the number of articles that corresponded to the code.

In many of the music articles, there were indications of perspectival changes, and most of these were in the areas—the impact of pedagogy (9 articles) and understanding of student learning, attitudes and experiences (8 articles), consistent with the kinds of research explored which had been found earlier. What was significant was that seven articles (25% of articles) demonstrated a change in teacher belief although the research had not set out with the intention to change any belief. For example, one of the teachers clearly demonstrated a cognitive dissonance when she had not expected the results of her investigation on collaborative learning to improve critical thinking.

> The results showed that the experimental group did not do significantly better than the control group. This study has highlighted the complexity involved in improving critical thinking in students. (Tang, 2014, p. 57)

In examples related to pedagogy, teachers discovered an approach, which was to reframe their thinking about music teaching,

> Flow experiences can take place in both highly-structured music lessons and less structured ones … Encouraging flow need not mean fun all the time. (Chan, 2017, p. 49)

> I used to think group music composition is not feasible for Primary 4 students as it is complicated and requires students to have a certain level of music background. … Now I think that group music composition, if facilitated properly, is a meaningful learning process, which helps to build students' music understanding as they learn from one another. (Josephine, 2016, p. 6)

> This project has been instrumental in shaping my teaching philosophy and I intend to teach, as much as possible, through this method of teaching by process, allowing students to make their own music decisions in the classroom. (Xie, 2017, p. 27)

Other heartfelt examples were deep reflections on one's journey and beliefs about their students' learning,

> The power of self-fulfilling prophecies was evident as I observed how the expectations I had of the students in turn made them believe in what they were able to achieve. (Chan, 2018, p. 35)

> It is not necessary to have (prior) formal musical learning in order to develop musical understandings. Having a strong interest in music and frequent exploration of instrument(s) can contribute to the development of musical understandings and a varied range of musical responses and behaviours. Non-formal music experience in co-curricular activities such as Choir and Band, or other experiences outside the formal music curriculum can be just as valuable and fruitful, or even more so than formal music learning. (Wong, 2017, p. 43)

While most changes were perspectival changes (27 articles) and some relate to changes in pedagogical approaches (15 articles), there was very little mention of changes in the teacher's own musical practices (2 articles). Where such mention was made, the accounts were very brief. One described awareness of her singing practice (Losey &Yasin, 2016); the other was a realisation of how the collaborative inquiry developed the teacher 'as a learner, facilitator, performer and instructor' (Xie, 2017, p. 27). It was interesting to observe that the two cases, which involved

practice changes also involved perspectival change (teacher belief) and pedagogical changes, suggesting that in these research or critical inquiry, perceived changes in the teacher's musical practice do not occur independently of his or her perspectival or pedagogical changes (Table 4.6).

Given STAR's research agenda on student-centric pedagogy and developing twenty-first-century competencies, it might not be surprising that the top four most cited change in perspectives were focussed on the roles of the art teacher (6 articles) and improvisation (3 articles), and contextualising learning: art and life (6 articles) and preparing for the future (4 articles). Further, other themes that emerged in perspectival changes (collaborative sense-making; students as artists; students as being; and contextualising learning: art and artists) would suggest that art teachers were shifting away from teaching skills and techniques to asking students to consider ideas and meaning in art making that were relevant to them as artist and as being.

Table 4.6 Changes in perspective, pedagogy and practice

Theme	Code	No. of articles
For art		
Perspectival change (22)[a]	Contextualising learning: art and life	6
	Roles of the art teacher	6
	Preparing for the future	4
	Improvisation	3
	Teacher belief	3
	Cognitive dissonance	2
	Collaborative sense-making	2
	Students as artists	2
	Understanding student learning, student attitudes and student experiences	2
	Adapting pedagogy	1
	Contextualising learning: art and artists	1
	Students as being	1
	Teacher professional development approach	1
Pedagogical change (16)[a]	Approach to designing learning experiences	6
	Approach to curriculum planning	3
	Approach to designing learning environment	2
	Approach to fostering reflective practice	2
	Approach to infusing ICT	2
	Approach to supporting student ownership	1
Practice change (1)[a]	Role of play in teacher's art practice	1

[a]In brackets are the total number of articles that have been found with the given themes. It should be noted that these numbers in the brackets do not add up to the total of 32 articles since there could be more than one theme coded in each article

The shift from teacher-centred to student-centred approach to teaching and learning in the art classroom had impacted the way six art teachers were thinking about their roles as experts versus facilitators; as role models, exuding the same artistic dispositions that they hoped to inculcate in their students; and adopting multiple passive and active roles in order to fully understand the way her students were thinking, learning and experiencing. Instead of adhering to the lesson plan, three teachers realised that they have had to adapt and change plans as the lesson or unit unfolded so as to be more responsive to the needs of the students. The attitude towards improvisation was most apparent in Chia (2016): 'The process of arriving at a tentative end point is by no means a given or immediate. I found myself having to constantly trial-and-error, learn new skills and digest new information to create new structures and forms' (p. 107).

There appeared to be a new found commitment amongst a number of art teachers to contextualise art learning such that it would be relevant to the students' lives and also connected to the larger context of the social and cultural world (6 articles) as well as the art world (1 article). Another four articles showed how art teachers were now charged with the larger purpose equipping students with future skills (Keh, 2013; Mei, 2013; Woon & Tay, 2016), and be lifelong independent learners (Tan, 2018). In three articles, the authors wrote about how they no longer looked upon their students as learners but as artists (Faizal, 2018) and creative individuals (Ho, 2018), and as being whose socio-emotional development needed to be nurtured (Jali, 2013).

While there were wide-ranging themes in pedagogical changes, all of them were situated in student-centric pedagogy, from designing learning experiences that afforded choice, to ways of embedding reflection and infusing technology. Surprisingly, in the three articles on changed approach to curriculum planning, the art teachers advocated for some intervention even when students were directing the learning in what might appear like a free-for-all situation in the art classroom. Sukaimi (2013) pointed out the need for 'scaffolding and sequencing' (p. 15) and Dahri (2018) needed 'routines and discipline'. Tang (2018) learned that 'the introduction of appropriate skill sets, new information, and prototypes at timely moment are critical' (p. 65) for students to be successful in their art making.

Similar to music teachers, most art teachers did not address change in their personal art practice as a result of the research or critical inquiry journey. Only Low (2016) spoke about how incorporating play in her lesson design got her to 'reflect how play act[ed] as a catalyst in [her] personal art making journey' (p. 34). She recognised that play took courage for her students as well as for herself as a teacher and artist. She concluded by declaring, 'I am learning to play both as an artist and art teacher' (p. 43). The pedagogy of play had also impacted the way Low designed learning spaces to be more conducive and safe for experimentation for students of all abilities (changed pedagogy) and shaped her belief about how play inculcated qualities that would help students grapple with uncertainties (changed perspective).

Discussion

Returning to the question on the kinds of research conducted by teachers in their respective art and music classrooms and how they contribute to enhancing their professional knowledge and professional artistry as reflected in their articles, this study has revealed the following findings.

Interest in Pedagogical Approach and Student Learning Experiences

There is a greater interest in pedagogical approach and student learning experiences compared to musical processes, student motivation, student outcomes and professional development as seen in the kinds of research investigated in the music articles. It is thus evident that music teachers are more interested in investigating the direct processes of teaching and learning. For art, although there seems to be a greater research focus on the artistic processes in the initial research purpose, the impact on pedagogical changes rather than their artistic practice demonstrated the attention that had been given to teaching and learning. Such attention highlights how teachers are using research and critical inquiry to help them further their pedagogical content knowledge and hence their professional artistry. Hence, the closer investigation into the teaching and learning processes could help teachers choose their teaching procedure to teach a particular content or concept for the students they teach in their context.

Shift from Proving of Teaching Approaches to Contextualising Pedagogy and Contextualising Learning for Students

The differences in the two approaches (arts pedagogical research and the critical inquiry networked learning community) in facilitating teacher inquiry as outlined earlier might have led to subtle differences in the research outcomes. In analysing the types of research, we observed that early teacher inquiry essays were focussed on proving of specific teaching approaches under investigation and usually included an extensive literature review, akin to most academic essays. It could be attributed to the guidance of the research consultant who usually would be a faculty member from the university. The later types of research and critical inquiry projects seemed to lean towards contextualising of teaching approaches, and may or may not be accompanied with a literature review. It could be due to the change of mentor who gave more attention to the actual teaching practice in the course of the research.

Emerging Engagement with Arts-Infused Qualitative and Mixed Methods in Teacher Inquiry

The breadth of methodologies explored by the teachers illustrates the breadth of reflective practices related to the nature of their discipline, which might also be influenced by their artistic inclinations and shaped by their mentors and their peers. The findings, however, revealed a preference for qualitative and mixed methods research designs, resonating with literature that teacher inquiry tended to be qualitative where questions are largely open-ended, issues pursued in greater depth, and that ideas emerge from the data rather than 'tested' against data (Beck & Kosnik, 2014, p. 145). Of the qualitative and mixed methods designs, reflection journals are most prominent in the art articles whereas more 'narrative' forms of research (case studies, observational study and autoethnographic studies) are more frequently observed in the music articles. While there are evidences of art teachers using visual tools to organise, analyse and communicate their ideas, there is little evidence of music teachers using music to do so in research. Instead, music teachers fall back on more literary approaches. This phenomenon mirrors the phenomenon elsewhere in academic research where music is infrequently used in research designs (Daykin, 2004). Yet, scholars have argued that music and music making can offer useful resources for inquiry (e.g. Daykin, 2004; Vist, 2015). This raises the question of how a greater awareness and understanding of the ways music could be used as a research tool could be raised. After all, the kinds of qualitative and mixed methods, which are arts-infused, such as reflection journals, have shown to give art and music teachers greater access to teacher inquiry. Such a broader conception of research methods is also supported by proponents of arts-based research (e.g. Barone & Eisner, 2012; Leavy, 2018) and critical arts-based inquiry (Finley, 2011).

Perspectival and Pedagogical Changes in Art and Music Teachers' Professional Knowledge and Professional Artistry

In comparing the impact of inquiry projects on art and music teachers, it could be observed that there were many differences in the kinds of perspectival and pedagogical changes, perhaps due to the nature of the disciplines, the nature of the inquiry and the influences from their respective mentors. What is common, however, was the perspectival change in understanding student learning, student attitudes and student experiences, and of their teacher belief, as well as the pedagogical change in the approach to supporting student ownership.

From the analyses of the music inquiry projects, we earlier suggested that the change of teachers' musical practice also changed their perspective or pedagogy. Similarly, one art teacher's perceived change in personal practice also occurred in tandem with her changed pedagogy and changed perspective in art teaching. However, reports of inquiry projects changing teachers' art or music practices were

much fewer in comparison with changes of perspective and pedagogy. Hence, teacher inquiry projects, perhaps in the way they have been approached, might not be sufficient for the holistic development of arts educators if defined by the need to grow their 3Ps. It might be useful to consider other alternative ways that integrate teacher inquiry with arts making practices, which could then lead to more holistic and transformative professional development of teachers.

We should also be mindful that the findings discussed above were only based on teacher inquiry projects that had been published. Certainly, there are likely to be other learnings and experiences that had not been discussed here because they had not been captured or articulated in these publications. We were also aware that as two authors here conducted the content analysis for art and music separately, and although the two authors met to discuss and agree on the codes, there might still be some differences in the way the data had been interpreted for both art and music.

Implications for Future Teacher Inquiry

In the context of the professional development work of the Singapore Teachers' Academy for the aRts, there are potentials to explore the unique affordances of the arts in shaping teacher inquiry projects, that can extend classroom inquiry practices. The arts-infused methodologies such as visual journals stem from the intersections between artistic practices and arts pedagogical practices that can empower the professional artistry of arts teachers. We need to depart from inquiry practices that are simply self-affirming to inquiry practices that foster change and open perspectives, so that teachers' professional artistry can be enriched and expanded. And such inquiry methodologies could also be reimagined to enable arts teachers to see their daily practices in new light, while at the same time harness arts reflective tools to critically reflect on their work, so that they continuously encounter new insights and feel renewed by new-found perspectives. Arts teachers could then be empowered with the choices of arts-based approaches of practitioner research to facilitate their investigation and reflection without being overwhelmed by theoretical examinations more typical of academic research. Hence, as mentors of arts inquiry research, it is even more critical to open our hearts and minds to different inquiry processes, multiple ways of knowing and expression in research, in the same spirit as we embrace artistic processes as nonlinear, messy, creative and organic. The use of the arts as means of communicating research can be more evocative and generative, furnishing a certain richness to teachers' expression of their professional artistry.

Conclusion

A range of inquiry practices has provided critical perspectives for professional learning purposes by allowing teachers to re-engage and re-examine their pedagogical content knowledge and hence their professional artistry. The myriad approaches illustrate the diverse ways of metacognitive thinking, ways in which we could collect data and analyse them to sound out different teaching practices in different contexts. Teachers involved in projects have emerged with stronger understandings and awareness of their teaching practices as their findings inspired them to reframe their beliefs and practices in their art and music classrooms. What was rewarding is the sense of professional growth experienced on the journey, finding their own voice, growing their professional knowledge and sense of identity as art and music teachers in the process.

The study has revealed that the teacher inquiry projects, with support from a research consultant, mentor or networked learning community, were effective in impacting changes to teachers' perspective and pedagogical knowledge. However, these teacher inquiry projects have not shown to engage or encourage many teachers' art or music practices. For a more holistic professional development through teacher inquiry, so that teachers' artistic and musical practices could also be impacted, which in turn transform their perspectives and pedagogy, there might be a need for teachers to develop understanding of different methodologies, which could include arts-based research. How might a teacher collect and analyse artworks and performances as data? How might we present findings that showcase the creativity and innovation in the field? We might need more understanding and openness to alternative research paradigm sin re-examining pedagogical content knowledge and develop professional artistry. Given the multiplicities of art and music teaching practices, and teacher identities, the growth of professional knowledge and professional artistry will be enriched by more diverse inquiry processes that draw on the unique experiences and orientations of individuals. Therefore, an openness to different research paradigms, by research consultants and mentors alike, even if these might not fall within the conventional research paradigms of academic research, would be useful in supporting teacher inquiry.

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Part III
Preparing Future-Ready Teachers and Students Through the Arts /in/ Education: Pedagogical Frameworks

Chapter 5
Art Inquiry: Creative Inquiry for Integration and Metacognition

Julia Marshall

Abstract Drawing on an example of a creative inquiry project that explores natural forms as inspirations for concepts and symbolism, this chapter illustrates *art inquiry integration* (AII), an approach to arts integration that stems from contemporary art practice, specifically arts-based research (Sullivan, 2010). AII takes the methods and thinking of arts-based research and applies them to teaching and learning in K-12 classrooms—demonstrating how an arts-based inquiry can cross-disciplinary lines to create authentic, organic integration that enables learners to build deep and broad understanding of academic content, make vital connections among school subject areas, and find personal meaning in what they are learning. Practicing AII also helps learners build their thinking skills and become metacognitive about their art making, thinking, and learning processes. Moreover, AII builds creative, imaginative, and associative thinking as ways to learn. It is ultimately an approach to learning and teaching that enables learners to build fresh perspectives and holistic understandings through creative means. This chapter explains the theory that supports AII and the methods it employs, and it also discusses how this approach is being implemented in the Bay Area (Northern California) schools in the USA.

Introduction

Educators around the world are re-thinking what young people need to be engaged, successful and happy in this complex, increasingly globalized world. In the USA, this introspection has generated some useful frameworks and initiatives. They include twenty-first century skills (Partnership for 20th Century Learning, 2015), Common Core State Standards in Language Arts and Mathematics (CCSS) (Corestandards.org, 2014), the New Generation Science Standards (NGSS) (Achieve, 2013), and Science, Technology, Engineering, Art and Mathematics (STEAM) (STEM to STEAM, 2017).

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These initiatives are significant because they herald a new direction in American education—a movement away from memorization of facts toward an emphasis on thinking, understanding, and meaning-making. They redirect education toward content and skills that matter. The twenty-first century skills framework draws attention to the basic skills every child needs. These skills, which include creativity, critical thinking, collaboration, and communication, surpass mere acquisition of content knowledge in the academic disciplines. The CCSS and the NGSS are US-government-sponsored frameworks that concentrate on fundamental skills, underlying concepts and basic knowledge, particularly in Math and English (CCSS) and Science (NGSS). STEAM is the one initiative that purposely integrates art with other domains, bringing art and design thinking and process to curriculum enrichment. STEAM also stresses the importance of technology skills and literacy.

Where does visual art education fit with these initiatives and how can it build on them to transform education? More specifically, what kind of art education should we create to make this transformation? These are essential questions art educators must address.

There are many ways to bring art into schools and they vary in their capacity to enhance or transform what and how young people learn. Visual art can be taught as a distinct and separate discipline; it can be inserted here and there as an ancillary activity; or it can be integrated into the curriculum. For art to truly transform education it must not be treated as an isolated subject; it should not be a "frill". It should be deeply integrated into the school curriculum and part of pedagogy in all disciplines.

This chapter presents a vision of deep arts integration that can transform education. The arts integration it proposes is not a superficial kind of arts integration based on simply illustrating academic content, but a specific approach that employs many creative ways to connect and explore academic content. In this approach, art practices and thinking provide fresh ways of seeing as well as new and imaginative ways of thinking about and exploring academic knowledge. Art practice is employed to help students make sense of bits of academic knowledge by tying them together and revealing the common wisdom that underlies them. Moreover, this deeply integrated approach to art uses the practices of art to build the thinking skills and dispositions twenty-first century learners need to thrive today. It goes even further to help learners understand their world and how they think and learn. In a nutshell, the approach to art education presented here fosters deep integration and understanding of the academic domains while it fosters the development of higher-order thinking skills including metacognition.

Art Inquiry Integration

We call this approach art inquiry integration (AII) because it is based on the notion that art practice is a form of inquiry, a way of exploring, interpreting and coming to understand any idea, topic, or phenomenon through the lens and practices of art.

The AII model is built on three foundations: (a) Learning theory (constructivist theories of Piaget, 1997; Vygotsky, 2012 and Bruner, 2006; the metacognition theory first tendered by Flavell, 1979; and understanding theory proposed by Perkins, 1988) supplies the theoretical foundation; (b) Harvard's Project Zero (Mansilla and Gardner, 1998; Hetland, Winner, Veneema, & Sheridan, 2013; and Wiske, 1998) provides the guidelines and frameworks; and (c) contemporary art and art practice as research theory (Sullivan, 2010) contribute strategies, lenses, and models for inquiry and pedagogy.

Art educators use this art inquiry methodology in high schools, middle schools, and elementary schools in the San Francisco Bay Area of Northern California, USA. Their work corresponds with efforts outside the USA, such as the work of STAR (Singapore Teachers Academy for the Arts), a branch of the Singapore Academy of Teachers (Lim & Loy, 2016). We begin our discussion with the approach's foundation in practice and theory and then describe specific frameworks, methods, and tools.

Art Practice as Research

In 2005, Graeme Sullivan argued that what artists do in the studio is a form of research. In so doing, he expanded the concept of research beyond inquiry in the usual domains, the sciences and humanities, to apply to practice in the arts. His thesis is that art practice, like inquiry in all domains, generates knowledge. The knowledge of art, however, is not of facts or information, as it is in the academic domains, but comes in the form of new theories, insights, and perspectives (Sullivan, 2005, 2010).

Why is this so important? Sullivan's theory elevates art practice to the level of the other disciplines as a serious pursuit of truth. To Sullivan, art is a way to get to truths that are obscured by myths and propaganda, to cut through the "noise" of information to examine what it means, and to reveal the consequences of knowledge and ideas we often accept or ignore. Art is a way to see things more clearly or from different perspectives. It is, therefore, a penetrating and refreshing way to make connections among disciplines and to get to what is important in all of them.

Sullivan's take on art also validates learning in and through art making because it promotes personal interpretation, imaginative projection, and hands-on experience as ways of learning and knowing. Sullivan's ideas also have implications for what we teach in art education; they shift the focus away from common art "content" of art courses, such as technical skills and the history or conventions of art, toward studio inquiry as it was done by practicing contemporary artists.

In casting art as research, Sullivan blurs the boundary between art and the academic world. Studio art practice can now be considered legitimate research and, therefore, have academic credentials. This idea has contributed to the proliferation of doctoral degrees in studio art around the world. It also provides a firm footing for the art inquiry model of K-12 art education that aligns academic study with art

studio thinking and practices. Indeed, our art inquiry approach is an adaptation of Sullivan's theory of adult professional art practice applied to art learning and integration in schools.

Contemporary Art and Integration

Art integration can be a controversial subject among art educators; some see it as a watering down of art in service of academic learning. For those art educators concerned with the authenticity of art education in the context of art integration, the art inquiry approach builds on genuine contemporary art practice. This is current art that has research at its core and addresses a world of topics ranging from natural forces, life, and ecosystems; to human institutions and interactions; to social issues and cultural lenses; to individual identity and experience; to belief systems and spirituality; to language and communication; and to many more issues and ideas of consequence. These are real-world topics explored, codified, theorized, and explained in the academic disciplines. Because artists today use art to explore and interpret those topics, they are "integrators."

In this art, integration happens naturally; it is a product of artistic curiosity and investigation. Some artists who exemplify the fusion of art with academic disciplines and subjects are: for the natural sciences: Rebecca Kamen, Eve Andree' Laramee, Margaret and Christine Wertheim, and Theo Janssen; for history, cultural criticism and anthropology: Catherine Wagner, Zhang Hongtu, Greta Pratt, and Michael Arcega; for language arts (storytelling and metaphor): Kerry James Marshall, Chris Ware, Robert Arneson, and Do Ho Suh. These are just a few artists among very many.

This "integrative turn" in contemporary art is a blessing for education; it provides educators with many effective and engaging ways students can learn and develop meaningful understandings that go outside academic norms. It also gives art teachers license to experiment with alternative pedagogies and to expand the purview of art curriculum to include the whole-wide world.

An Example of an Integrated Art Inquiry Project

The following is an example of an art inquiry that crosses disciplinary boundaries as it follows and expands upon a theme. In many US elementary schools, students study the Fibonacci series, the mathematical formula that describes structures and growth patterns in many plants and animals. Rather than simply learning about the sequence (1, 3, 5, 8, 13, 21...) in an isolated academic way, this project allows

students to see the sequence in context, explore what it means, and learn experientially.

Students begin by printing with colorful inks the cross sections of vegetables, in particular, celery stalks and Bok Choy (Fig. 5.1). Bok Choy and celery are singled out here because their stems grow in spiral patterns. From there, learners draw the spiral forms they see in their vegetable prints. They also examine the spiral growth patterns in seashells. As they do this, the teacher directs their attention to how they are observing and analyzing what they find. This focus on process connects their perception and thinking to the methods of scientists. Students are also encouraged to notice the regularity and proportions they see in their plant prints. These patterns are so regular that they can be measured and quantified mathematically in the Fibonacci series. They are so universal that the formula describes many instances of exponential growth in nature, including the rate at which rabbits reproduce and the helix-shaped coiling of leaves around stems.

Broadening the integration, the teacher puts the Fibonacci sequence in historical perspective by introducing learners to Leonardo Fibonacci, the twelfth-century Italian mathematician for whom the sequence is named. Fibonacci found out about the sequence from Arab sailors. When the teacher describes how this happened, students learn about how knowledge travels from one culture to another. They then think about how new knowledge is made. They discuss how mathematicians discern patterns that underlie complex phenomena. This expands to a broader conversation about the way close observation leads to thinking, connection making, and inference, which can generate important insights and discoveries in math, science, and art.

The history lesson then continues with a study of the Golden Mean, the formula based on the Fibonacci sequence that underlies European Renaissance art and

Fig. 5.1 Student print revealing the Fibonacci spiral in Bok Choy
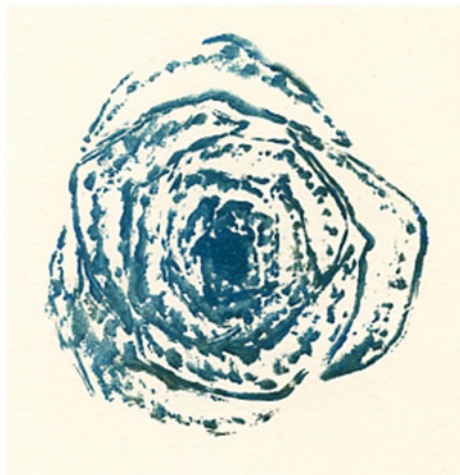
Fig. 5.2 Spiral map by a
future teacher, San Francisco
State University

architecture. The inquiry has now crossed over into art history and aesthetics. From
there, it enters the world of design and architecture to examine how spirals inspire
structures in architecture and design around the world. Students look at spiral
staircases in architecture such as Antoine Gaudi's Art Nouveau masterpiece,
Sagrada Familia Cathedral in Barcelona, Spain.

The final activity in the inquiry entails a leap from the concrete and tangible to
the conceptual. Learners look at the spiral as a symbol and how, in many cultural
traditions, spirals symbolize abstract concepts. For example, spirals often represent
life. We see this in spiral designs in art from ancient stone monuments in England;
to patterns in folk art and Medieval European manuscripts; to the postmodern land
art of the 1970s and 1980s. Spirals also symbolize processes of growth, change, and
progress. They are often used to map out journeys or progress in games and mazes;
to illustrate growth, change, and evolution in scientific diagrams; and to show
sequences of events in historical timelines. We also find them in allegorical
paintings like William Blake's *Jacob's Ladder* (1806), or in symbolic architecture
such as the Minaret at Samarra, Iraq where they represent a journey to spiritual
enlightenment.

To internalize this idea by applying it to themselves, learners create a spiral map
of experiences that have shaped their identities. Figure 5.2 is an example by a future
teacher that shows her progress through her academic career toward her goal of
teaching.

Foundations of the Approach

The following are the goals and principles of the art inquiry integration approach.

Cultivate Dispositions Toward Learning

Preparing minds for a lifelong engagement with learning is a primary goal of education (Gnanakan, 2011; Fink, 2013). The art inquiry approach, as exemplified in our spiral example, cultivates the dispositions that support learning: curiosity, care, a sense of agency, and comfort with one's own perceptions and insights. To do this, each inquiry starts with a question and the challenge to explore that question in multiple, personal, and open-ended ways. By beginning with questions, a teacher sets the stage for inquiry. This means she does not simply feed students information or assign a directed activity with known outcomes, but invites students to contemplate, explore, and find their own ideas and answers as they come to understand academic content. This gives students more autonomy and personal buy-in. While it generates curiosity and the motivation to learn, art inquiry also builds a sense of agency and independence that enables learners to persist and take their learning further. In our Fibonacci inquiry, questions guide every step of the way. Those questions are discussed in full later in this chapter.

Make Meaning and Develop Understanding

Another purpose of education is to help learners understand things in complex and meaningful ways (Perkins, 1988). David Perkins of Harvard's Project Zero (PZ) developed the theory of understanding that underlies PZ's work. He states: "Understanding something entails appreciating how it is placed in a web of relationships that give it meaning" (1988, p. 114). Understanding an idea, a topic, a thing or phenomenon, therefore, is a matter of seeing it in context. Expanding its context—connecting something to things outside its usual "web of relationships"—is the core principle behind curriculum integration. Integration is expanding "webs of relationships" across disciplinary borders to deepen and broaden meaning—and to make it more complex. Following Perkins' logic, true understanding of a topic, issue, or idea requires a cross-disciplinary perspective: integration.

Conventional visual art integration, however, does not frequently make cross-disciplinary connections to expand, deepen, or "complexify" understanding. That is because it is often limited to accurate illustration of academic content. An art inquiry, however, while it may involve illustration, also invites learners to detach from the impasse of "accuracy", to open information up to exploration and scrutiny. In an art inquiry, personal experience and interpretation begin the unlocking of content. From there, learners can stretch, expand, and connect content by playing with it. For this, they use creative art strategies such as projection (imagining what could happen), metaphor (casting one thing as another), re-categorization (classifying something differently), de-contextualization (removing something from its usual milieu), mapping (diagramming invisible relationships and processes),

and elaboration (taking something further) (Marshall & Donahue, 2014). By playing creatively, they build novel understandings and go beyond accuracy to meaning.

In our Fibonacci inquiry example, direct illustration (prints of vegetables) begins the inquiry. From there, the inquiry expands to metaphor when the symbolic meaning of spirals is explored and applied to learners' lives. Using and mapping a metaphor, learners come to see how the forms and patterns we see in nature can shape our concepts and our understanding of similar, but distantly related ideas. Here, we see how an integrated art inquiry builds and expands webs of meaning. We also see how creative strategies such as mapping and metaphor can construct even more complex and expanded webs.

Develop Metacognition

As discussed at the beginning of this chapter, it is imperative that today's students learn to think. Ideally, they should be able to think critically, creatively, expansively, flexibly, and in complex ways. Art inquiry provides an opportunity for students to flex and practice all of these types of thinking. In our Fibonacci inquiry, for example, learners thinking critically about what they see. They then think more expansively and complexly in connecting visible phenomena to symbolic representations. The project culminates with creative thinking when learners apply natural patterns and forms to their lives. In the Fibonacci example, we see how an art inquiry can take thinking further. This project calls attention to the thinking involved in any investigation or discovery. It directs learners to think about how mathematicians, scientists, and artists think; it reveals how forms we see around us shape our conceptualizations and perceptions (our thinking), and it guides students to reflect upon their thinking as they go through the inquiry process.

Here, the creative inquiry goes beyond the practice of thinking to the development of *metacognition*. Metacognition is defined as the ability to think about one's thinking (Flavell, 1979) and to monitor one's thinking and learning (Kolencik & Hillwig, 2011; Silver, 2013). Metacognition is the apotheosis of critical thinking skills because it turns thinking toward itself. General educators now consider metacognition to be critical for academic success (Silver, 2013). We see the development of metacognition, alongside curriculum integration, as one of the two primary goals of art inquiry.

The art inquiry approach we take builds on the thinking in conventional art rooms. Where it differs from more common art education is in its more metacognitive approach we see in the Fibonacci project. Any art classroom offers opportunities for thinking and developing complex thinking skills. There are four reasons for this.

First, making art takes a lot of thought and this includes thinking before, during, and after creating works of art. Critiques in art classes, therefore, often highlight thinking not only as a part of learning something, but also as a major factor in creative production.

Second, art classrooms are *studios*. In a studio environment, learners not only study art, but also perform as artists; they actively engage with the discipline. Therefore, art studio practice provides real experience on which students can reflect on their thinking. They learn from first doing something and then reflecting on what they did. This taps into the core principle of learning theory first described by Dewey (1990) and it is the centerpiece of Perkins' theory of understanding (1988) discussed below.

Third, artworks are visualizations of the thinking that went into them. Visual imagery makes thinking visible and, thus, accessible (Verkerk, 2011). Therefore, in a critique, students can discern the thinking and intention of an artist by examining the visual evidence: the formal qualities and images in the artwork.

Fourth, the kinds of thought employed in an art studio are varied and complex. Creative process requires mixing logic and analytical reasoning (to find topics, solve problems, and construct physical objects and visual images) with imaginative and associative thinking (to make creative leaps, spark ideas, and make connections) (Marshall, 2014). Understanding how the two kinds of thinking comingle and work together links play and fantasy to serious thinking and learning, giving students license to take ideas to their logical or not-so-logical conclusions.

Our art inquiry approach also highlights the importance of the social environment. Thinking is best learned and practiced in what Ritchhart, Church, and Morrison (Ritchart, Church, & Morrison, 2011) call "cultures of thinking," "places where a group's collective as well as individual thinking is valued, visible, and actively promoted as part of a regular, day-to-day experience of all group members" (p. 219). Building a collaborative, supportive culture of thinking is particularly important for art inquiry. That is because each independent student investigation takes a lot of engagement, persistence, and courage. Young learners need support and guidance to do this personal work. We have found this to be particularly true in our art inquiry program at Berkeley High School, where ongoing student collaboration in idea generation, reflection, and critique enables students to go further and take risks. Class support also makes each student's accomplishment as a point of pride for the entire group. Moreover, it allows thinking to grow and expand. Students get ideas from each other. They think together and, because they focus on their thinking, they build metacognition together.

Integrate in Multiple Dimensions

Our Fibonacci spiral project, while exploring academic content, employs basic methods and forms from the disciplines it touches upon. It also looks at how and why disciplinary practitioners do what they do. It is, therefore, a *multi-dimensional* inquiry, which aligns with Mansilla and Gardner's (1998) four *dimensions of understanding*. According to Mansilla and Gardner, every discipline has four dimensions: a purpose, knowledge, methods, and forms. In identifying components of the disciplines, they provide a framework for the art inquiry approach to art

integration that integrates in a much broader and deeper way than conventional art integration often does. While conventional art integration usually focuses on the academic content (knowledge), the "four dimensions" approach expands the purview of an art integration to include a focus on the underlying goals of art and academic disciplines (purpose); using tools, thinking, and procedures from all the disciplines (methods); and conceptualizing and expressing ideas through multiple discipline-specific ways expressions (forms).

This *multi-dimensional* integration is a natural fit for art inquiry because its muses, contemporary artists, work in all these dimensions. Regarding knowledge, they often interpret topics and ideas addressed by academic disciplines. Regarding methods, they use research procedures and tools from math (Jer Thorpe; Manuel Lima), the natural sciences (Amy Youngs, Nene Humphreys), and the social sciences (John Rubin, Fred Wilson). As for forms, contemporary art is not confined to conventional art forms such as drawing, painting, and sculpture, but encompasses everything from conceptual maps (Simon Evans), to experiments with living organisms (bio-art), to anthropological digs and displays (Mark Dion).

Regarding purpose, contemporary artists call attention to and critique the agendas and perspectives of the disciplines. These artists also highlight important ideas and issues; they dig beneath the surface. They unearth hidden meanings and agendas; they visualize, humanize, and amplify information and issues; they play with ways of investigation and knowing; and through this, they bring fresh perspectives to topics. This multi-dimensional investigation is what students can do in their art classes and how they can approach their studies in other classes. When art integration does these things, the art class can be the hub of a multi-dimensional integration.

Acquire, Understand, and Utilize Three Kinds of Knowledge

One of the four dimensions, knowledge, may seem rather straight forward; it is what we know; its information and ideas. In schools, it is "content." However, knowledge is more varied and complex. Breaking it down enables us to see what it is, how it fits together, and how it builds on itself. Fink (2013) differentiates between two kinds of knowledge, foundational and integrated. Foundational knowledge is the content (concepts, ideas, and information) of the academic domains. Equally important, foundational knowledge also includes knowledge, understandings, and perspectives a learner gathers from her life experiences and brings into the classroom.

Integrated knowledge is the understanding of how foundational knowledge ties together. This includes connections among academic content areas and how academic knowledge connects with a learner's lived experience. While integrated knowledge depends on foundational knowledge, it breaks knowledge out of its silos

and enables us to see foundational knowledge in a holistic way. The ultimate goal of integrated knowledge is to go beneath surface knowledge in all domains to reveal the "big ideas" that underlie them. Big Ideas often emerge through integration. We see this in our Fibonacci spiral project when a big idea such as the way humans connect to nature (in how we find models for concepts and in what we find to be beautiful) bubbles up as learners delve deeper and follow a train of thought.

An art inquiry integration (AII) model takes Fink's analysis of knowledge further to identify the third kind of knowledge: new knowledge. New knowledge consists of new perspectives, new inferences, new connections, and new inventions. New knowledge can range from personal interpretations to broad and groundbreaking insights. The addition of new knowledge to Fink's list completes the learning circle. In the circle, the learner begins by establishing foundational knowledge. She then extrapolates and connects what she knows to construct integrated knowledge. The next step is elaborating, inventing, and playing with the integrated and foundational knowledge to construct new knowledge. This new knowledge becomes foundational knowledge for the next cycle of learning.

This cycle of knowledge provides young people with a lesson about the nature of knowledge. By going through the cycle in a metacognitive way, learners can come to see that knowledge is a living thing; it grows and changes; it is not set or stagnant. Understanding this key point enables students to see existing knowledge as flexible and mutable. This is a disposition that helps them to embrace uncertainty and change, and it prompts them to see themselves as contributors to what is known or how it is perceived.

Art Inquiry is particularly suited to developing all three kinds of knowledge for three reasons. First, regarding foundational knowledge, art offers students the opportunity to actively engage with content through visualization and other creative strategies. Second, in regard to integrated knowledge, an art inquiry involves a set of methods students can use to connect information, make sense of it, and place it in a larger context. Here, employing creative art strategies can lead to novel connections and new understandings. Third, in regard to new knowledge, the creation of new perspectives, new inventions, and new ways of thinking is a core feature of learning through art inquiry. That is to say, in art inquiry, the learner imagines, interprets, and invents in order to understand.

Scaffolding Practices in the Approach

Ask Three Types of Questions

Earlier in this chapter, we discussed learning dispositions and how starting with questions motivates students to explore and learn. Questions can also jumpstart learning, guide and enrich that learning, and lead learners to understand their learning, its implications, and how they did it. For guidance in developing

questions, the art inquiry approach turns to Project Zero's Teaching for Understanding Framework (TfU) (Wiske, 1998).

TfU delineates three kinds of questions to guide an inquiry. The first kind, *generative questions*, explore ideas that are significant to atopic or field. These questions should also be interesting to the learner and the teacher. A generative question sparks curiosity and contemplation. Because they are open-ended questions about complex things, generative questions provoke discussion and open up more questions. They are not easily answered. In TfU, generative questions hover over the entire inquiry process. Students are encouraged to connect all of the activities and reflections back to the generative question. A generative question in our Fibonacci spiral project, for example, is "How do natural forms and patterns influence the way we conceptualize other things?" All questions in the project tie back to it.

The second type of question in TfU is *guiding questions*. Guiding questions help the student engage with a topic. To do so, these questions must range from specific and concrete (in the beginning) to more abstract and probing (as the inquiry advances). Consider guiding questions to be the scaffolding for idea generation or the prompts that guide thinking as the inquiry progresses. As such, they guide the learner to think broader and more deeply, and they prompt them to go beyond the obvious and clichéd.

Guiding questions in the Fibonacci spiral inquiry are: What patterns do we find in nature? How does close observation reveal those patterns? What do artists and scientists have in common? How do artists and architects use spiral structures and patterns in their work? Why are spirals and other natural patterns considered beautiful? How do spirals and helixes symbolize growth, progress and change? Why is this?

The third kind of question is the *reflection question*. Reflection questions are both specific and general. They prompt the learner to reflect on her ideas and what she has learned in very specific ways while they can help her expand her perspective, see things in context, and come to new insights. In an art inquiry, reflective questions also address the process a student artist went through to explore a topic and produce artwork or series of artworks. This, of course, includes the kinds of thinking involved. Reflective questions, therefore, are essential tools for developing metacognition.

In the Fibonacci spiral project, reflection questions include: What natural form did you choose as a model for your life map? How does this form represent the process you are illustrating? If you were to use a different natural form (such as branching, webbing, or radiating circles) would the meaning change? How does mapping something personal shape the way you think about it? What did you learn from this process—about science and art, about the mind and symbolism, about yourself as an artist–researcher and thinker?

In TfU, it is absolutely critical that all questions fit together. In a cycle of questioning, the reflection questions draw from both the generative questions and the guiding questions, and the guiding questions help learners to develop the specific knowledge and ideas to complete the learning circle.

Map Concepts

Concept mapping helps learners explore and identify what they know, expand what they know, and connect it in new ways. Concept maps make knowledge visible and organized, and they serve as starting points for art inquiries or series of artworks. In concept mapping, students are encouraged to write or draw whatever comes to mind. This free play of thought generates ideas. It also makes relationships visible.

Figure 5.3 is a concept map created by a Kindergartener as the first step in a series of activities that investigated a redwood forest in Northern California. Here, the learner explored a place or ecosystem. He mapped what he knew about forests before instruction and activities began, revealing his baseline knowledge of the woods to himself and to his teacher. This map could be the foundation of a more complex map, a map that the learner adds to as he learns more about his topic.

Concept mapping of personal artifacts is also a generative way to enter into ideas, issues, and topics of significance to students. This is because an artifact that a student loves, needs, or uses embodies memories and personal associations. Artifacts also have cultural significance and histories. Both the personal and the cultural aspects of an artifact can be explored in a concept map. This holistic examination prompts the object's owner to think more deeply about the nature of artifacts—where they come from, who made them, what they do, and how they affect his or her life.

Figure 5.4 is a concept map by an eleventh grade student that launched his three-week investigation into cameras and photography. The map reveals the multiple connections the student made. These connections meander from memories to superheroes, to tacos, to technology, to music, and many other subjects that came to the student's mind as he followed his thoughts. While this map connected the camera to the student's life, it also revealed how his mind roamed from one related topic to another. The map, therefore, goes beyond making knowledge visible to make thinking visible as well. Because concept mapping makes thinking visible, it is a good device for developing metacognition.

Fig. 5.3 Concept map of the forest by a Kindergarten student, Creative Arts Charter School

Fig. 5.4 Concept map of a camera by an eleventh grade student, Lincoln High School

Map Process

In an art inquiry, metacognitive awareness can be expanded to include the consciousness of one's creative process. Process mapping, like concept mapping, makes knowledge and thinking visible; it, however, takes metacognition a step further by visualizing a *sequence* of thinking, making, doing, and learning that builds an understanding of how things are done consecutively. A process map can involve a simple visual tracking of what one did during an art project, such as the map shown in Fig. 5.5 or it can be a more involved illustration as seen in Fig. 5.6.

In both maps, mapping allowed student artists to see what they did. Figure 5.6, however, represents how much more comprehensive and revealing process mapping can be. It is an example of how a student probed deeper into her creative process by identifying and articulating the kinds of thinking she did and placing them in sequence on the map.

Fig. 5.5 Process map of the marriage box project by a tenth grader, Lincoln High School
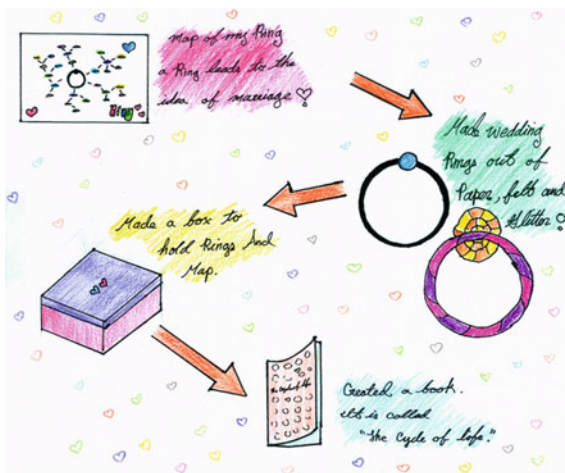
Fig. 5.6 Investigation roadmap by a twelfth grader, Berkeley High School
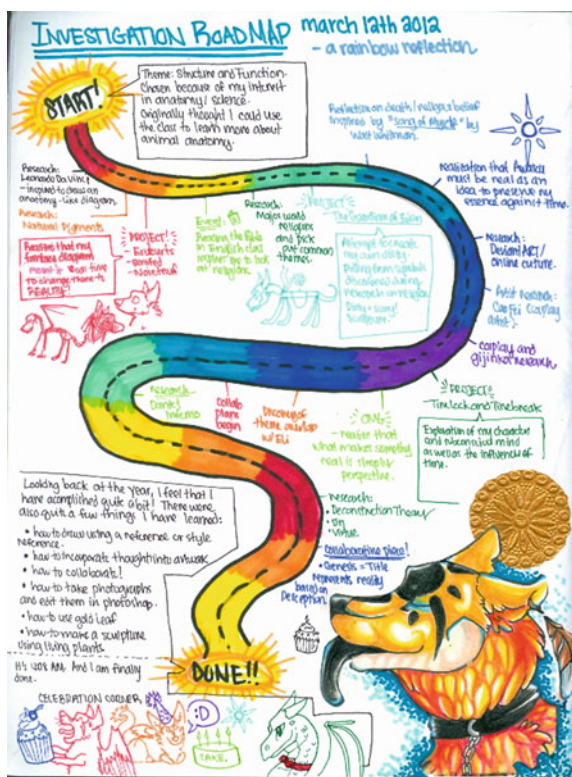
Create Research Workbooks

Metacognition and cross-disciplinary integration are central goals of the art inquiry approach. To reach those goals, we use a fundamental tool: the research workbook. Research workbooks are more than sketchbooks, notebooks, or scrapbooks. More like scientific field study books, they are tools for creative inquiry and they are artworks in themselves. We find research workbooks to be the most generative and effective way for tying an art investigation or series of projects together to integrate the topics and ideas a learner researches with the thinking she does and process she goes through. The book is effective because it contains the entire process and all that goes into it and comes out of it; it is where a learner stores and arranges her resource materials, maps connections to her topic, illustrates her ideas, records her thoughts, makes her plans, experiments with materials and ideas, and chronicles her process.

Because the book offers a tangible, visual account of information, ideas, learning, and creating, it also serves as an ongoing inspiration for creativity. Students can make connections they might not have otherwise made and they can revisit ideas and combine them with later ideas to create something new. Many of

the figures in this chapter are from student research workbooks (Figs. 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, and 5.7).

To reach its potential, a workbook must be properly scaffolded and structured. We recommend providing students with concrete guidelines for the book. The following are instructions for two models of the research workbook. The first is germane to art classes in which many projects are teacher-directed. The second provides guidance and structure for an independent art inquiry.

A research workbook that accompanies an art course is a chronicle of a learner's thinking, learning, and creating over the duration of the course. Contents of the book could include: generative, guiding, and reflection questions; written thoughts on the activities and learning in class; reflections on how activities and ideas connect to academic knowledge; connections from one art activity to another; any visual interpretations of the ideas and issues discussed in class; resources images, writings, and ideas collected; and a map of how the learner sees her creative process (the progression of thinking and actions done in the class).

For a book for an independent inquiry into a topic, the book should chronicle the learner's exploration of, learning about, and creative response to the topic. This can include: a concept map of the topic (an initial brainstorm);a generative research question (what the learner would like to know about her topic); concept maps that show the learner's thinking and connection making as the inquiry progresses; reflections on how the topic connects to the academic disciplines; visual images related to the topic; descriptive texts; reflections on generative and reflection questions provided by the teacher; project plans that outline the steps in creating artworks; and a map of the learner's creative inquiry process.

When learners generate both kinds of research workbooks, many objectives are reached. First, the learner presents information and ideas in images and artifacts,
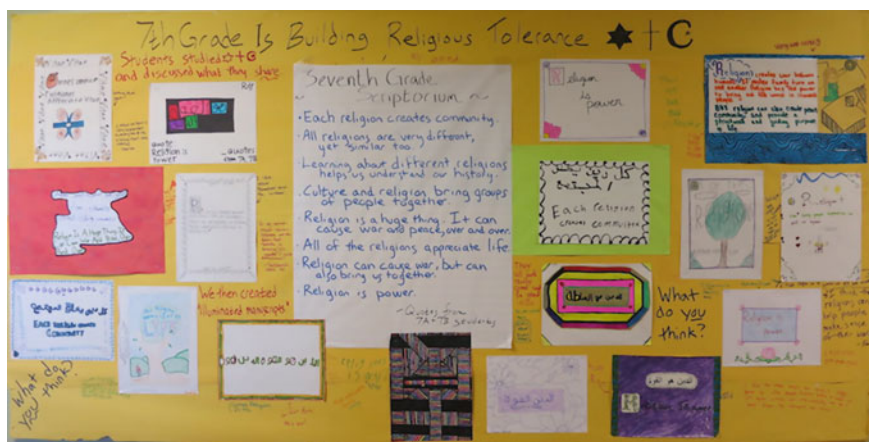
Fig. 5.7 Bulletin board displaying an art inquiry into religion and religious tolerance, seventh grade San Francisco Creative Arts Charter School

making them visual and, therefore, more directly accessible. These visual images are complemented with discursive and reflective writing that explain them and the learner's thinking about them. In more imaginative studies, creative storytelling and poetry add to the exploration. This combination of visual and verbal expands the learning to make it more complex, and it enlivens the subject.

Second, the process of learning about the topic is made visible and tangible. As the learner adds to his book, he "sees" himself learning about the topic, particularly since the book includes all steps in his exploration, thinking, and interpretation of the subject. The learner's book, therefore, is an extended chronicle of his learning, which enables him to see how his learning progresses over time.

This also allows the learner to go back, revisit, add to, and revise things (to rework ideas and imagery in different, more informed ways). It gives each learner the opportunity to teach himself. It also keeps the topic alive and evolving.

Third, the research workbook is a very personal artifact. When a learner creates one of these books, she takes ownership of its information and ideas. She writes her own book about her topic or her experiences in a course, and she authors a book about herself. A student also develops a sense of agency because the book is a tangible reminder that she is the author of her own learning. Moreover, we have found in art inquiry classes that students become attached to their books and find great satisfaction in creating and owning them.

Fifth, the final benefit of the book goes to the instructor. These books are the most effective and engaging medium for assessment. They can reveal what and how a student learned in the most detailed and thoughtful ways. Furthermore, they give the instructor a clear vision of how his course is working and how his teaching is going. Beyond this, because the workbooks are creative and aesthetic artworks, they are a joy to observe, read, and assess. This makes a teacher's life easier and it keeps him more closely in touch with his students.

Ongoing Research in Art Inquiry Integrated Learning

Art inquiry integration principles and practices have driven teaching and learning for many years in San Francisco Bay Area schools, such as Maya Lin Elementary School, Wood Middle School, Berkeley High School, and San Francisco Creative Arts Charter School. Although these programs incorporate all art disciplines (dance, drama, music, and visual art), the methods and ideas that guide them are those of the visual inquiry approach to integration described here. The key to this implementation has been professional development for all teachers and administrators through the Alameda County Office of Education's Integrated Learning Specialist Program (ILSP), a professional development program that immerses educators in all the components of art inquiry integration in all the arts. The above schools are remarkable because, in each one, the entire school has committed to arts integration through creative inquiry and this school-wide commitment has enabled teachers to collaborate and build their school's distinct program.

The schools are also remarkable in how much the teachers and the students have flourished due to their immersion in art inquiry integration. Each school has seen a definite improvement in school spirit, academic engagement, and student behavior. Through student work as well as interviews with teachers, administrators, and students, the schools and ILSP have found that the art inquiry learning practiced in these schools has helped students to develop complex understandings of significant issues and ideas, and flexible thinking. They have also found that viewing ideas and knowledge through the lens of art has contributed to students' understanding of how the academic disciplines overlap and tie together.

ILSP's research also indicates that art inquiry integration teaches learners to think for themselves and to see themselves as creators of knowledge. This motivates and enables learners to not only learn, but to trust their own capacities for creating new understandings and new perspectives, including building a deep understanding of significant real-life issues. Figure 5.7 shows an example of a seventh grade class constructing understanding together.

The whole-school model has been very successful in schools where achievement was either average or high before the adoption of art inquiry integration. Could the art inquiry approach do the same for schools where students are less academically successful and the social climate is less conducive to learning? That is the question the Alameda County Office of Education Department of Integrated Learning is now attempting to answer with a pilot program in two underserved urban schools in Oakland, California: Roots International Middle School and Alliance Middle School. Funded through a grant from the US Department of Education, this three-year program, called School Transformation Through the Arts (STTArts), sees art inquiry integration as a way to provide equitable, culturally responsive education and build inclusive, joyful schools for all students.

The STAArts program calls for the total school immersion in arts inquiry integration practiced in the other schools mentioned above. All teachers go through the ILSP training and are encouraged to collaborate on curriculum and teaching practices. Where the STTArts program takes ILSP a step further, is in the ongoing coaching it provides to teachers and administrators at these sites. ILSP instructors are in the classrooms on a regular basis to assist and advise teachers, and teachers periodically attend refresher ILSP workshops.

STAArts is now in its second year. The first year assessment report (Catterall, Arenge, Friedlander, & Kendig, 2016) suggests that art inquiry integrated learning has a positive effect on life and learning in these schools. Although the schools' experiences are not exactly the same and one school is ahead of the other in implementing the program, anecdotal results show that both find a better school climate, students are more engaged in school activities and learning, and retention rates of teachers are improving.

Concluding Thoughts

No approach or model should be boiled down to a simple package that fits all. The art inquiry approach described here is far from a rigid formula; it is a flexible framework on which teachers and schools anywhere can develop methods and ideas that are appropriate and applicable to their students and classrooms. At the approach's core is the premise that creative inquiry and learning can promote a holistic understanding of the world (integration) and a deep understanding of oneself (metacognition). This premise provides a broad foundation on which to build a variety of specific practices. We offer our approach here in the hope that others will find the foundational principles in line with their thinking and the given guidelines and practices helpful in constructing and growing their own programs. We hope to contribute to a global movement in education that enables learners all over the world to reach their goals and fulfill their dreams. We believe that bringing the wisdom, lens, and practices of the visual arts to learning is a good beginning.

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Chapter 6
Teaching Contemporary Choreography: A Research and Inquiry-Based Approach

Caren Carino

Abstract Teaching contemporary choreography in tertiary education is often about providing practical guidance to develop choreographic principles and skills to express a personal perspective using contemporary dance movement vocabulary. While there are different strategies, methods and tools, this author proposes a research and inquiry-based pedagogical approach to contemporary choreography that develops both critical and creative thinking skills. In Singapore, these skills and dispositions are aligned with the Ministry of Education's (MOE) twenty-first-century competencies as well as the educational objectives of Nanyang Academy of Fine Arts (NAFA), a tertiary arts institution. At NAFA, the teaching of contemporary choreography becomes a dynamic space where students draw from their Asian cultural heritage and encounters through a research and inquiry-based approach to develop critical and creative thinking skills that are deemed essential today.

Introduction

Contemporary choreography was primarily an instinctual endeavour until the early twentieth century. Humphrey (1959), one of the pioneers of modern dance (a term often used synonymously with contemporary dance or considered as its predecessor), explains that dancers began to ask themselves "What am I dancing about? Is it worthy in the light of the person I am and the kind of world I live in? But if not, what other kind of dance shall there be, and how should it be organised?". Nearly ninety years hence, these questions are still pertinent for contemporary choreography, the subsequent development and broadening of the concepts of modern dance. In the context of tertiary dance education, this author proposes that contemporary choreography should be relevant to the choreographer's understanding of self and personal experience of the world, including cultural practice and

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perspective. This cultural relevance can be explored through a research and inquiry-based approach to contemporary choreography that develops critical and creative thinking skills. This chapter presents two case studies of student dancers that demonstrate how this approach is operationalised. This author employed qualitative research methodology, including participant observation to obtain a teacher perspective through one-to-one discussions and interviews with the students as well as direct observation and analyses of their choreographic processes and results.

Contemporary Dance and Choreography

To better understand contemporary choreography, a brief discussion on the emergence and development of contemporary dance is necessary. The term contemporary dance is a term that is not referred to with consistent understanding. At times, it is broadly used to describe a variety of contemporaneous dance forms that exist today. At other times, contemporary dance describes the continuance of modern dance,

> [a genre] closely entwined with the cultural era known as 'Modernism' that began in the West [specifically America and Germany] in the 1890s when thinkers, writers, and artists broke away from current means of understanding, organizing and expressing the nature of reality. In dance, classical ballet was rejected in favour of new ideas and techniques (Jowitt, 1999, p. 3).

Later, when modern dance was transferred to the UK by Robin Howard and when the Contemporary Ballet Trust in 1966 and later London Contemporary Dance Theatre was established, modern dance became known as contemporary dance. At other times, contemporary dance is used synonymously with modern dance, in reference to the development of the genre from its inception until today. This often depends on the location and/or the person using the term. Americans and/or American-influenced places and persons often use the term modern dance while British and/or British-influenced places and persons prefer the term contemporary dance. Yet contemporary dance can also refer to the contemporisation of established dance forms such as ballet as well as cultural/traditional dance forms. These forms are sometimes identified by the inclusion of the word "contemporary" or "contemporary dance" in its name, for example contemporary Ballet and Chinese contemporary dance. For the purpose of this chapter, "contemporary dance" refers to a genre parallel to modern dance as well as the contemporisation of classical and traditional dance forms (Carino, 2017).

Early views on contemporary choreography include American modern dance pioneer Doris Humphrey who claimed that dance creation was essentially an intuitive effort "through the ages, from the earliest pre-historic era to the present time, but it was only in the nineteen thirties that theories of dance composition were developed and taught" (Humphrey, 1959, p. 16). Since then, various approaches to

choreography, the process of applying choreographic principles and skills to the creation of a dance work that expresses a personal perspective, have developed. These approaches are primarily centred on one of two concepts of what dance could be: representational and conceptual. Representational choreography was predominant in early contemporary dance when Doris Humphrey and her counterpart Martha Graham held a "strong socio-cultural concern that dance should be recognized as an art form communicating the rhythm of contemporary life" (Partsch-Bergsohn, 1994, p. 53) and "should provoke, stimulate and inform rather than simply entertain" (Au, 1988, p. 119). Conceptual choreography, also known as movement for movement's sake and non-literal choreography, is characterised by an "absence of emotion in its natural and dramatic forms" (Turner, 1971, p. xii) and instead focuses essentially on movement exploration. It communicates directly, does not need to be translated or explained and is a "sensed experienced whose value to the perceiver is determined…" (Turner, 1971, p. 5). In the 1950s, Alwin Nikolais and Merce Cunningham were among the first to experiment in the non-literal approach to choreography. In *Ballet & Modern Dance*, author Susan Au said Nikolais "compared his work with nonobjective art, which does not aim to represent 'real' objects, but instead draws the viewer's attention to its substance— shape, colour, texture, space, time—which becomes the focal point of the work" (Au, 1988, p. 160). On the other hand, Cunningham brought together various artistic forms such as music/sound, stage design and dance "treated as independent entities…although music occupies the same time span as the choreography, and the design the same physical space, neither has to relate in any other way to the dancing" (Au, 1988, p. 150).

Contemporary choreography saw its eventual transference from the West to Asia. It was recognised but improvised through different ways of incorporating practices. Some Asian choreographers created dance on local terms where Asian values and ideals are reasserted or reinvented. At times, it is about experimenting with traditional dance or within the conventions of the dance form. At other times, it is about exploring an Asian topic or issue (Carino, 2017). For example, Taiwanese artistic director/choreographer Lin Hwai Min says that his company Cloud Gate Dance Theatre is "inspired by Taiwanese culture and traditional Chinese aesthetics have become the shared memory of three generations in Taiwan" (Lin, 2011). Contemporary Thai choreographer Pichet Klunchun, founder of Pichet Klunchun Dance Company in Thailand, is interested "to create a pride and faith in Thai Classical Dance" (Pichet Klunchun Dance Company, 2013).

In Singapore, contemporary choreography "emerged in the mid 1980s and gained momentum in the 1990s, a period that coincided with the height of the Asian identities and values discourse which promulgated in Southeast Asian politics" (Carino, 2008, p. 6). Local artists, including contemporary choreographers, developed pan-Asian works that reflected Singapore's vision of becoming a world-class city recognised internationally (Carino, 2008). This aspiration is still relevant today. For example, Angela Liong, artistic director/choreographer of The Arts Fission Company, aims to create dance works that are informed by "Asian aesthetics, culture, and history" (The Arts Fission Dance Company, 2017).

However, the approaches taken by other Singapore companies are not explicitly Asian. Raw Moves artistic director/choreographer Ricky Sim takes a more "inclusive and holistic approach to movement and dance" (Raw Moves, 2015). Similarly, T.H.E Dance Company artistic director/choreographer Kuik Swee Boon's philosophy is also universal as he "attempts to expose different dimensions of the human condition to highlight the minute, intricate but nevertheless important details that often go unnoticed in a contemporary age that moves with blinding speed" (T.H.E Dance Company, 2015).

It is in this context that the teaching of contemporary choreography at NAFA exists. In 2009, this author began to notice several dance students produce representational contemporary choreographies centred on Asian culture. Under the guidance of Lim Fei Shen, then senior fellow lecturer, students explored "stories and issues as well as forms and elements from their Asian culture. Often, the medium of expression was contemporary dance movement, choreographic structures and device, since either they and/or their fellow student dancers did not have or were limited in Asian dance or movement training" (Carino, 2017). Tham Luo Lin Laura researched the plight of the Samsui women who were females of Cantonese and Hakka descent from Sanshui, a district of Guangdong, Southern China, who came to work in Singapore in construction from the mid-1930s. She incorporated her research in her contemporary choreography *Red Bamboo* (Nanyang Academy of Fine Arts, 2009) as a soundscape, spoken text and projections as well as interpreted it in movement and costume. Marn Qin Pei Charlotte researched her Peranakan ancestry, believed to be descendants of Chinese immigrant traders who married local Malay women in Singapore. Her research was translated through choreographic structure and device, music composition and costume in *Rumah Tangga* (Nanyang Academy of Fine Arts, 2010). *Rumah* means house and *Tangga* means stairs. Tay Shuwen Amanda also translated her research as choreographic structures, devices and movement in *Địa đạo Củ Chi* (Nanyang Academy of Fine Arts, 2011) based on her research on the Vietnam war from the Viet Cong perspective including their existence in the Củ Chi tunnel.

Lim Fei Shen's guidance of choreography students to research their topics was intuitive. She was interested in students to produce meaningful contemporary choreography that was rooted in their Asian cultural background and/or experience. It was Lim and her students' effort that compelled this author to consider the formalisation of a research and inquiry-based approach to contemporary choreography.

Critical and Creative Thinking

A research and inquiry-based pedagogical approach to contemporary choreography can facilitate the development of both critical and creative thinking skills. Critical and creative thinking skills are identified by the Singapore's Ministry of Education (MOE) as twenty-first-century competencies that students require to succeed in a

globalised and fast-changing world (Ministry of Education, 2016). Nanyang Academy of Fine Arts (NAFA), a Singapore tertiary arts education institution, similarly subscribes to the importance of nurturing "creative attitudes and critical thinking" as key educational objectives in its strategic direction (Nanyang Academy of Fine Arts, 2017c). NAFA's Dance Programme has accordingly asserted its aim to guide students to "draw on creative and critical thinking skills to contribute to dance making" (Nanyang Academy of Fine Arts, 2017b). Hence, MOE's twenty-first-century competencies, NAFA's educational objectives and NAFA's dance programme's learning objectives are aligned.

While there is no comprehensive definition, critical thinking can be described as an "intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action" (Scriven & Paul, 2015). The importance of critical thinking has been promoted by educational theorists such as Dewey (1916) who espoused a pragmatic approach that is still relevant today. In his seminal writing *Democracy and Education: An Introduction to the Philosophy of Education*, he summarises the essentials to promote thinking:

> …first, that the pupil have a genuine situation of experience – that there is a continuous activity in which he is interested in for its own sake; secondly, that a genuine problem develop within this situation as a stimulus to thought; third, that he possess the information and make the observations needed to deal with it; fourth, that suggested solutions occur to him which he shall be responsible for developing in an orderly way; fifth, that he have opportunity and accession to test his ideas by application to make their meaning clear and to discover for himself their validity (p. 192).

Creative thinking is generally about exploring ideas and generating possibilities or ideas (Harris, 1998). The process sometimes involves combining, changing or reapplying existing ideas. At other times, it is about considering something in a new way or abandoning an idea all together and thinking of a different one (De Bono, 2016). Creative thinking is promoted through divergent thinking, which is an essential capacity for creativity, according to arts educationist Robinson (2008). Bloom's (1956) taxonomy for thinking, later revised by Krathwohl (2002), provides a hierarchical framework that includes both critical and creative thinking. The cognitive areas progress from simple to more complex ways of thinking: remember, understand, apply, analyse, evaluate and finally create (Krathwohl, 2002). At NAFA, creative thinking is described as the ability to identify and solve problems, to think and act flexibly and to respond and react positively to dynamic situations. It cultivates independence of thought and innovation qualified by an awareness and appreciation of standard norms of practice and precedents (Nanyang Academy of Fine Arts, 2016). In the context of dance education, McCutchen (2006) refers to Bloom and explains that both critical and creative thinking processes are required to evaluate dance. While critical thinking comprises analysis, interpretation and evaluation, creative thinking entails elaboration, invention and is open-ended.

A Research and Inquiry-Based Approach to Contemporary Choreography

The teaching of contemporary choreography at NAFA presents an opportunity to develop critical and creative thinking through a research and inquiry-based approach. The process is "not necessarily a single direct act but a complication of activities and associated thinking. Decisions are made and problems are solved as part of this process. Ideas are tested, results analysed, prior learning brought to bear, and ideas synthesized into something that is novel, at least for the creator" (Church, Morrison, & Ritchhart, 2011, p. 8).

A research-based approach to contemporary choreography is about choreography being informed by research. The qualitative data collection methods in Table 6.1 are introduced by this author/teacher to facilitate students acknowledgement of what already exists, gather information and/or material as well as obtain knowledge and

Table 6.1 Qualitative data collection methods

Form	Description
Descriptive analysis	A system of observation, documentation and interpretation/analysis developed by Adshead (1988). The individual components of a dance include: movement—possible axial and locomotor actions of the body, spatial dimensions—body shape (curved/linear), direction, dimension and dynamics (or qualities)—time, weight, energy; dancers—gender, age, size, number and role; visual setting—environment such as the performance area, costumes, stage properties and lighting; and aural elements—sound such as instrumental music, singing, spoken word and random noise (Adshead, 1988, p. 22–32). Adshead's language-based framework is arguably less cumbersome than other dance analysis methodologies that can take considerable more time to acquire such as Laban movement analysis—a method and language to describe or generate movement
Long qualitative interview	An ethnographic method that uses an open-ended questionnaire allows the investigator to see and experience the world as the respondent does without the investigator being physically immersed in their life and community (McCracken, 1988). The questionnaire for a long interview consists of several types of questions that are relatively broad to allow the respondent to tell their own story in their own way. These question types include grand tour—opening, non-directive; category—to identify the aspects of something; contrast—the difference between categories; recall—the recitation of an incident; and auto driving—comment on a stimulus such as a picture, video and so on (McCracken, 1988, pp. 34–36)
Literature review	A survey of scholarly articles and other sources provides the context of what has been previously said about a topic
Resources/ materials	Notes and reflections on information/material from various sources such as photographs, videotapes, poetry, stories, music, songs, sounds and so on

Table 6.2 Text types and presentation

Form	Description
General essay	A formal academic piece of writing about a specific topic
Comparative essay	An essay characterised by a basis for comparison, points of comparison and analogies
Critical review	A form of writing that consists of a detailed analysis using technical and specialised information to support views and conclusions
Mood/inspiration board	A type of poster design that typically comprises images, text and samples of objects, to facilitate creativity and innovation

contextual understanding (Carino, 2017) relevant to their contemporary choreography.

Research also includes the evaluation and synthesis of information expressed through different forms of writing and presentations outlined in Table 6.2.

While contemporary choreography informed by research cultivated critical thinking through the processes of observation, documentation, investigation and analysis, it required a link to the creative thinking processes of conceptualisation, exploration, experimentation, development and making. Inquiry-based learning, or a questioning approach, encourages engagement with the research content/material to be explored in contemporary choreography. McCutchen (2006) refers to inquiry-based dance as follows:

> …dance that is about investigating, participating and problem solving. Inquiry produces an active learning environment in which students uncover diverse topics essential to their growth. Both a teaching style and a student learning process that stimulate learning. Aesthetic inquiry leads learners to make discriminating artistic choices about what they create and how they interact with the works of others (p. 527).

This author/teacher employs an inquiry-based approach to facilitate the students' creative thinking. Focused on the topic of contemporary choreography rooted in their Asian ancestry, students are initially guided to address "What possibilities, problems, or situations am I interested to choreography about? What sources/types of information, experiences and perspectives are available to me? What do others think or know?". The students are continually engaged in the creative thinking process and are encouraged to reflect on their research, clarify their own thinking and explore possible ways to develop their contemporary choreography.

Study of Contemporary Choreography Through a Research and Inquiry-Based Approach

A research and inquiry-based approach to teaching contemporary choreography was conducted/studied from 2015 to 2017. Two NAFA students, Rochanavibhata Supawalee and Sakulrattansak Pornanong, both in their final year of NAFA's 3-year

Diploma in Dance course were studied on separate occasions. The study involving Supawalee was conducted from January to April 2016, and the study on Pornanong was from January to April 2017.

Both Thai nationals, Supawalee and Pornanong, began their dance training in classical ballet and were later introduced to other dance forms including Thai classical dance and contemporary dance. Eventually, Supawalee enrolled in NAFA's Dance course in 2013 to pursue a Diploma in Dance. One year later, in 2014, Pornanong followed. At NAFA, their proclivity in contemporary dance saw both perform in several major productions and external collaborations. Besides performance, Supawalee and Pornanong also showed an interest in contemporary choreography and dance research.

Both Supawalee and Pornanong developed representational contemporary choreographies informed by a research approach and guided by an inquiry-based approach. It began with lectures and philosophical discussions on the term contemporary dance as well as the concept of Asian-ness.

> At times Asian-ness is understood as a specific Asian culture associated especially with a particular ethnicity, which is thought to be both intrinsic as well as something learned. At other times, however, it is not necessarily about ethnicity but embracing multiple Asian cultural influences, i.e. reflecting different local contexts of other Asian societies. Yet in other instances, Asian-ness is more about acculturation with, or influenced by values, ways and aesthetics associated with Western societies (Carino, 2008).

Through an inquiry-based approach, the students were encouraged to consider topics for their contemporary choreographies related to how they defined Asian-ness and consider their family, friends and acquaintances. Selected research methods, academic writing and presentation formats were assigned to assist the students with their investigation and synthesis of their research topic/choreography. The information and/or material that the students obtained through research was explored to inspire or enhance the costumes, sets and props, music/sound, lighting and special effects used in their choreography.

Case Study 1

The first study of contemporary choreography through a research and inquiry-based approach was on Supawalee (born 20 July 1996). Supawalee began her classical ballet training under the Royal Academy of Dance (RAD) syllabus when she was 5 years old. At the age of 13, she was promoted to the rank of soloist and was introduced to other dance forms including Thai classical dance, modern ballet and contemporary dance at Bangkok Dance Academy. Eventually, she joined NAFA's Diploma in Dance course to pursue her passion in dance at a higher level with the aspiration to become a dance teacher. At NAFA, she developed her proclivity in contemporary dance which saw her selected by international choreographers for their dance works presented in NAFA's major performance platforms as well as at

performing arts events organised by NAFA's partners. Besides dance technique training and performance, Supawalee's studies included dance science, research and composition (also known as choreography).

Supawalee choreographed *Greetings* which was showcased at Dancers at Work, an informal showcase presented on 6 May 2016 at Dance Studio C6-38, Nanyang Academy of Fine Arts. Her synopsis reads (Fig. 6.1):

> An act of communication through which human beings intentionally make their presence known to each other to show attention and suggest types of relationships; reflecting the social status between individuals or groups of people coming in contact with each other (Nanyang Academy of Fine Arts, 2016).

Ideas for Supawalee's choreography began with an inquiry approach facilitated by this author's/teacher's discussions on the concept of contemporary dance. Supawalee came to understand and write, from her prior predominantly ballet experience that "contemporary dance is a personal interpretation and perspective on the world and society today, and can be presented in many different ways" (Rochanavibhata, 2016f). This author/teacher also encouraged Supawalee to think about the concept of Asian-ness which saw her reflect on her Thai cultural heritage as well as her interactions with the Chinese and Malay cultures during her tertiary dance studies at NAFA, vis-a-vis her encounter with the American culture during her one semester student exchange at Purchase Conservatory of Dance in the USA. Through discussions, she decided to focus her investigation on the social

Fig. 6.1 *Greetings* choreographed by Rochanavibhata Supawalee, presented in Dancers at Work, 6 May 2016, Dance Studio C6-38, NAFA

interactions or body language/gestures the Thai, Malay and American cultures used to greet ('hello'), depart ('goodbye') as well as thank others, apologise and excuse/pardon oneself.

This author/teacher introduced Supawalee to Adshead's description of components to provide a framework for her to objectively describe the greeting gestures that she observed of the three different cultures. Table 6.3 is an example of Supawalee's description of a Malay greeting (Rochanavibhata, 2016b).

Supawalee was also guided to write a general essay on how Thai, Malay and American greetings reflected their cultural values. Her findings eventually saw her explore the movement quality and spatial relationship between the dancers. In her initial rehearsal, Supawalee transferred her descriptions into movement on the dancers. She then guided them to improvise movement possibilities while also experimenting with spatial elements. Notes of her videotaped rehearsals briefly explain the progression of her dance creation such as abstracting the Thai bow as a duet and quintet separately then combined; exploring a Malay greeting duet; searching for more movement and transitions between the duets and quartet; creating a new ensemble using previous material; reworking the group section; finalising the dance work except the end; and completing the choreography (Rochanavibhata, 2016a). Supawalee's choreographic investigations were also discussed with this author/teacher.

Once the movement and structure of Supawalee's contemporary choreography were underway, her attention was turned to consider other elements to integrate,

Table 6.3 Description of components: Malay greeting	1.1 Movement (the distinctive range of movement)
	General greeting
	  • Hand in contact with chest
	  • Arm bend
	General greeting
	Greeting elderly people
	  • Torso curve to waist level
	  • Hand in contact with other person's hand
	  • Arms bend
	  • Head nod to the hands

	1.2 Spatial elements (shaping of the body: curved, linear, etc.; moving through space: direction, pattern, etc.)
	  • Body shaping: both linear(arms bend in angular shape) and curved(torso curve)
	  • Direction: towards other person
	  • Facing: front
	  • Level: middle

	1.3 Dynamics (degree of force, time, flow, weight)
	  • Force: sustained
	  • Weight: light
	  • Time: medium speed

	1.4 Dancers (gender, size, number and role)
	  • Gender: female and male
	  • Number: 2 people

compliment or enhance her choreography. The long qualitative interview provided her the opportunity to gain insight, appreciate different perspectives and contemplate music possibilities. In an interview with Dr. John Sharpley, a Western and Asian composer/musician, Sharpley's response led Supawalee to contemplate the use of traditional music for her contemporary choreography.

> Supawalee: What are your thoughts about contemporizing traditional music?
>
> Sharpley: We learn from the past and tradition, [this helps] us understand ourselves before we can move on and develop new [music]. Traditio[n] and culture grows in you and [they] are parts of your identity, which makes you who you are (J. Sharpley, personal communication, 2016).

Costume design was another element informed by Supawalee's research and developed through inquiry. In a comparative essay, she described and compared the daily clothing of the Thai, Malay and American cultures (Rochanavibhata, 2016c). She wrote that Malay women typically wear a *baju kurung*, a knee-length blouse worn over a long skirt. The blouse is long-sleeved and collarless, while the skirt, called a *kain*, has pleats on one side; a headscarf is sometimes worn. Thai women wear either a skirt called a *pa nung* or *pa sinh* or pants called *jong kra ben*. The pa nung or pa sinh is a long, rectangular cloth draped and folded in several ways around the lower body. The jong kra ben is wrapped around the waist by stretching it away from the body, twisting the ends together then pulling the twisted fabric between the legs and tucking it in the back of the waist (Rochanavibhata, 2016c). Supawalee goes on to discuss in her essay that Thai, Malay and American people have adapted and developed their daily clothing in consideration of weather, culture and fashion. For example, the Thai use natural fabrics, usually sheer and airy, due to Thailand's humid weather. Malay people prefer the colour green which represents nature and soul for Muslims. Jeans became popular in America because of its beginnings as practical work clothes (Rochanavibhata, 2016c). Today, the wearing of sustainable clothing such as T-shirts made of organic cotton is a trend. Additionally, Supawalee created a mood/inspiration board to help her visualise a possible colour palette for her costumes. Her findings from both the comparative essay and mood/inspiration board saw her explore and eventually decide on her costume design of white cotton pants and a green half top revealing a bare midriff.

Case Study 2

The second study on the research and inquiry-based approach to contemporary choreography involved Sakulrattansak Pornanong (born on 28 March 1998). Pornanong started Ballet at the age of 10 at the Bangkok Dance Academy. Trained in the Commonwealth Society of Teachers of Dancing (CSTD) and Royal Academy of Dance (RAD) Ballet syllabi, she participated in numerous dance competitions in the Asia-Pacific region including Australia, Hong Kong, Philippines, Singapore and Thailand. Besides Ballet, Pornanong trained in

Contemporary Dance, Jazz and Thai Classical Dance. As a dance student at NAFA, she continued her training in ballet and contemporary dance and had several opportunities to perform in the Dance Programme's major productions and external collaborations. Pornanong's studies at NAFA also comprised dance science, research and choreography.

Pornanong choreographed *Saturday's Child* which was presented at Crossings: Diploma in Dance Showcase on 21 and 22 April 2017 at the Lee Foundation Theatre, NAFA. Her synopsis reads (Fig. 6.2):

> I was born on a Saturday, which according to my Thai heritage is associated with the image of Buddha seated under a Bodhi tree protected by Mucalinda, the Naga (or serpent) King. "Saturday's Child" is a personal expression of my heritage and contemporary experience (Nanyang Academy of Fine Arts, 2017a).

Similar to Supawalee, this author/teacher engaged Pornanong in an inquiry-based approach to uncover the concepts of contemporary dance and Asian-ness that eventually led her to consider her Thai heritage. Pornanong was particularly interested in Buddhism, a religion that is practised widely in Thailand, including Pornanong and her family. Her decision to focus on the Thai folk story of Mucalinda, the Naga King who is believed to have emerged from beneath the earth to protect Buddha in his attainment of Enlightenment, fuelled discussions, choreographic investigations and an essay on the characteristics, symbolism and story of Mucalinda.
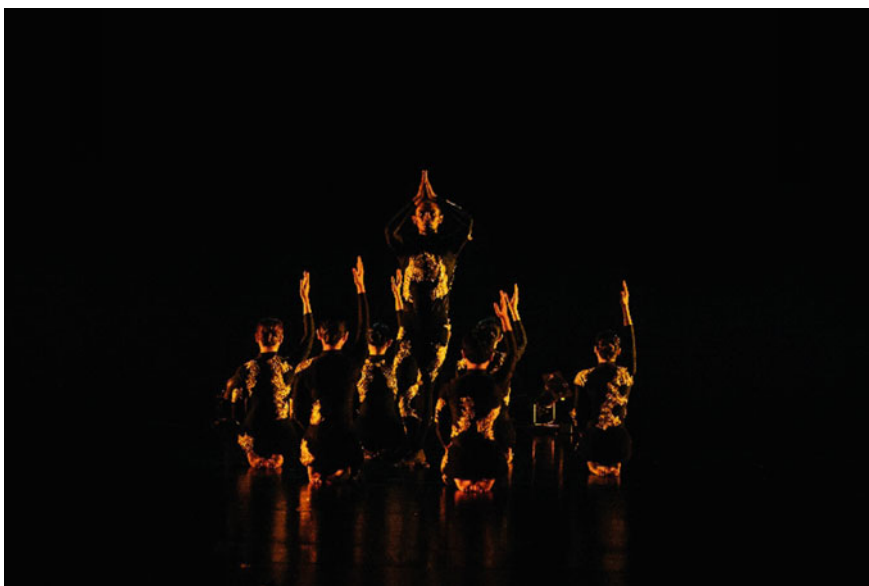
Fig. 6.2 "Saturday's Child" choreographed by Sakulrattansak Pornanong presented in Crossings 2017: Diploma in Dance Showcase, 21 and 22 April 2017, Lee Foundation Theatre, NAFA

Pornanong invited Dr. Siri Rama, an Indian dancer, choreographer, educator and academic who was teaching Asian Dance and Movement at NAFA, to one of her rehearsals to critique her work in progress. One of Dr. Rama's key observations had to do with the spatial elements of path and formation. She questioned, if the dancers represented Mucalinda being awakened to protect Buddha, then how can their path and formation show this? Pornanong reflected and eventually made adjustments to her choreography to address Dr. Rama's concern.

Pornanong also conducted a long qualitative interview with Dr. Siri Rama to seek clarification about the characteristics, symbolism and story of Mucalinda. Dr. Rama's answer to Pornanong's question "What is the difference between Phaya Nak, Naga and Mucalinda?" provided an alternative view of *naga*, which means snake in India.

> There is a place in India in the north east which is called Naga Land, the place of Naga. Therefore, 'naga' does not necessary mean a serpent but it also means a tribe of people. This is the origin of how Naga came into Buddhism. In Thailand long ago, in Chiang Mai or an earlier kingdom, you will see the Hindu influence such as Vishnu and other Indian gods. Later in Thailand Buddhism became prominent, so actually what happened was somewhere in the story the Naga princess married somebody who was supposed to have come from India. That is the mythical story. A priest or a Buddhist scholar came from India. They married and then the Naga kingdom started (S. Rama, personal communication, 2017).

Although Pornanong appreciated Dr. Rama's insight, she continued to focus on Mucalinda, the snake/serpent that saved Buddha and did not change the movement or content of her contemporary choreography.

To help Pornanong consider other choreographic approaches, this author/teacher introduced her to Adshead's description of components to document the styles of two contemporary Thai choreographers: Pichet Klunchun and Jitti Chompee. Pornanong described Pichet Klunchun's *Dancing with Death* (2016) and *Black and White* (2012). In Black and White, she described a dancer with a spear wearing a white mask and another dancer donning long fingernails contrasted with dancers wearing nude coloured shorts. In Dancing with Death, inspired by Phi Ta Khon, a spiritual Thai festival, Pornanong described Pichet's dancers wearing various combinations of white such as a "hoodie", a maxi length dress, a long-sleeved shirt with high neckline and so on (Sakulrattanasak, 2017b). Pornanong also described the components of Jitti Chompee's *18 Monkeys* (2010) and *18 Monkey's Tango* (2010). In both dances, she documents one dancer wearing a white three-dimensional mask and another dancer wearing a silver helmet. Her account of movement included flexed feet, hyperextended fingers and arms as well as pointed feet and swinging arms besides other movement (Sakulrattanasak, 2017a). While this author facilitated discussions with Pornanong on how Pichet's and Jitti's choreographies provided possible approaches for her own choreography, Pornanong decided to continue to depict the characteristics and story of Mucalinda derived from information she obtained and processed through a few research methods. This was apparent in the representation of a snake/serpent through her choreographic choices: movement/gestures, spatial elements such as formations and

pathways, and visual setting such as the costume colour. Furthermore, she portrayed the transformation of Mucalinda into a human as told in the story, in the final segment of her dance. Pornanong shared a possible reason for her choreographic approach in a reflection: "when I know about a story or information I feel scared to create and insecure to play around with the idea, especially a belief and faith of a person" (Sakulrattanasak, 2017c).

The case studies of Supawalee and Pornanong describe how their contemporary choreographies were produced through a research and inquiry-based approach. Both students were introduced by this author/teacher to research methods such as descriptive analysis, long qualitative interview and literature review to obtain data and information. Thinking critically about their data/information was evidenced in their reflection or analysis through one or more writing/presentation forms: general essay, comparative essay, critical review and mood/inspiration board. Both students were guided through inquiry by this author/teacher to think creatively about their data/information, that is, to explore how to apply or generate possibilities from their research. This was evidenced in their contemporary choreographies that they eventually produced.

Conclusion

The study of Supawalee and Pornanong reveals several points to consider. First, that choreography based on a research approach promotes critical thinking in the process of searching and analysing information, and research centred on the culture of the creator provides a "genuine situation of experience", which is a condition for effective thinking according to Dewey. Second, that an inquiry-based approach extends research into choreography through creative thinking or the process of exploring the possibilities. Research coupled with inquiry and focused on culture produces personally meaningful choreographies for the student choreographers. Through this approach, they address Humphrey's thought-provoking questions "What am I dancing about? Is it worthy in the light of the person I am and the kind of world I live in?" Hence, contemporary choreography informed by a research and inquiry-based approach reflects a more profound understanding.

To be formalised, teaching contemporary choreography through a research and inquiry-based approach that develops critical and creative thinking skills requires more investigation and refinement. Next steps could include the establishment of a guideline or procedure, including prompts/questions, for teaching contemporary choreography that connects research with inquiry. Besides the development of critical and creative skills, this author would also be interested in the possibility of developing critical and creative dispositions through a research and inquiry-based approach to contemporary choreography. Project Zero's Artful Thinking (2016) programme that develops thinking dispositions through thinking routines may provide answers to this enquiry.

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Chapter 7
Playing with Pedagogy: Teaching Dance and Embracing Play as a Pedagogical Tool

Deanna Paolantonio

Abstract This chapter discusses the development and testing of a new approach to teaching dance to girls who are on the cusp of becoming teenagers through a specially designed program called *Work It Out*. Pedagogically Work It Out accounts for the performative nature of gender (Butler, 1990), and the prevalence of 'beauty sickness' among adolescent girls addresses these issues through embodied play. In this program, dance is designed to guide girls through a self-reflexive practice where their ideas about body image are expressed. This teaching strategy applies the inherently expressive nature of creative dance and choreography to assist girls in conveying their experience of girlhood and how it is affected or related to their bodies and body image. The contributions of this program to education are discussed in relation to the dance curriculum in Ontario, Canada, and current offerings for body image programming in schools.

Introduction

Why involve the body in learning? How can we make dance meaningful and teachable for students and teachers? These were the inciting inquiries for my research in dance education and the answers came to me in two ways. The first answer to my question was in recognizing the value of structured play. In the dance classroom playfully engaging with movement can be achieved through student choreography, mimicking shapes with the body, taking up space in the room, or playing with props. Moreover, as a social action, playing with one another actively inspires peers to connect meaningfully while fostering the creation of friendships. To play with ideas and express them in and through dance makes the 'emotional' tangible for students resulting in a more meaningful relationship with dance as a practice.

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Recognizing the need to input the self into current dance curriculum lessons was the second part to answering my question. To date current dance teaching focuses on the basics of movement (i.e., elements of dance and/or technical training depending on grade level). However, asking students to merely mimic or perform does not bring value to their learning or their lives. Noticing the rise in body image and self-esteem centered programming for girls, I launched my efforts into investigating how the expressive qualities of dance could assist girls in fostering improved body confidence and self-esteem. I have used this playful, body image-based approach in a program of my own creation—the *Work it Out* program. The theory and methods behind its formation and some case studies of my recent work with it will be explained throughout this chapter as an exemplar of how dance can be playfully and effectively included in the elementary school classroom.

The central pedagogical concept to be proven through this chapter is that creative dance is a form of meaningful play; that when students are given the opportunity to engage in dance as an artistic endeavor meaningful learning happens. This is a departure from traditional modes of teaching and learning because a specific technique is not the focus here. Instead, students are encouraged to explore their movement potential, skills, and ideas through the creative process.

In my work with the Work It Out program, I specifically focus on body image and self-esteem in the classroom. The leading research question I aim to answer is: Can dance as a form of embodied play assist girls, aged 11–14, in grappling with the body image issues often faced during early adolescence? If so, then how might dance be used by educators to encourage positive body image in this population? Which specific pedagogical strategies have the potential to foster a more positive corporeal self-conceptualization in early adolescent girls? What types of dance, and aspects of dance practice, are best suited to body image enhancement activities? Which external factors might significantly impact a girl's experience in this type of dance class (i.e., prior dance background, larger school environment, family, religious orientation, media consumption habits, parental involvement, or sexual orientation)?

In this chapter, I explain the theory and methods behind my research in dance pedagogy. First, I will give a brief explanation of the cultural climate in Ontario, Canada in regard to currently offered body image programs. I then explain the theory behind my use of dance as play in the classroom. The general make-up of a dance lesson in the Work It Out program using my playful approach is outlined. Finally, I provide final thoughts and conclusions I have drawn from my work with the program so far.

Context: Body Image Programming Options and Schools

Ontario schools' current method for assisting girls with body image is including sex-segregated, extra-curricular programming options for girls about body image. Two of the most common programs are the Dove Self-Esteem Project[®] and Girls on

the Run®. These programs focus on discussing media (Dove Self-Esteem Project, 2017) and engaging in sports (Girls on the Run, 2017) as methods for helping girls reframe their body image. However, these programs' curricula are potentially limited because of the conflicting messages their choices in activity communicate. For example, the Dove Self-Esteem Project's goal is to help girls appreciating their own beauty, rather than satisfying particular physical ideals. However, Dove makes and sells cosmetics and skin care. Can a program that is sponsored by a renowned beauty company effectively be a spokesperson for helping girls to overcome their body image issues? Relatedly, Girls on the Run uses training for, and running, a 5 km race as a way for girls to use their body to achieve a physical goal. As an inherently competitive activity, I question whether running is the most inclusive choice for helping all girls improve their body image. Within the context of my research, the use of these programs implies that schools realize how pervasive body image issues are for young girls and how influential continued negative body image is on their well-being.

This research on the pedagogy behind effective body image programming was a twofold project. First, I wanted to address the gaps I saw in current body image programming options for girls. To do this I created the Work It Out program, a teacher-guided, student-led program in which participants engage with their moving bodies while reflecting, creating, and commenting on their many uses through dance. Second, I wanted to know if dance, as a form of embodied play, can assist girls aged 11–14 to address the body image issues that frequently occur in adolescence. Through a series of two case studies, in co-educational, private single-sex school settings, respectively, I address these questions.

Ontario's dance curriculum focuses on creative dance rather than technical training in technique. This pedagogical choice is very body positive. Removing the technical focus of formal dance training helps divert students' attention from the aesthetics of the body in favor of self-expression. This does not mean, I assume that just because students are free to dance in any form they are immune to the grander cultural constructions tied to idealizations of the dancer's body. Instead of having finite lesson plans with specified discussion points for each class, I chose to have a more general classroom organization. I did this so that I could see what conversations students would have about dance and the body on their own. Three key factors provided the foundation for the curriculum I developed, these factors include: the performative nature of gender (Butler, 1990), the pervasiveness of 'beauty sickness' in adolescent girls, and the meaningful learning that comes from encouraging 'imaginative transformation' in students through playful interactions with the arts (Eisner, 2002).

Gender Performativity. 'Gender performativity' identifies the ways that ideals about masculinity or femininity affect behavior. Coined by gender scholar Butler (1990), gender performativity effectively denaturalizes the idea that males or females should act in a particular way or like certain activities. Butler's (1990) idea is important to my work because dance is most often characterized in Western culture as a primarily female form of physical activity. The thin ballerina archetype, graceful movements, and role of female dancers as followers to their male lead align

with culturally constructed ideas about females. However, Butler's (1990) idea that gender is performed identifies these supposedly 'female' behaviors as unnatural. As a result, the need to fulfill particular aesthetics to partake in certain ways of moving, behaving, or socializing breaks down. As such, the need to look a particular way in order to be ideally feminine is erased.

Beauty Sickness. The idea of 'beauty sickness' describes the negative effects the idealization of the female body has had on women and girls. Engeln-Maddox (2013) coined this term to explain the obsessive ways in which young women pursue particular physical aesthetics. In her research with college-age girls, Engeln-Maddox (2013) examined how images of female bodies in media affect young women's body image. She found that while the majority of her participants knew that models featured on magazines were not representative of the general population, they still wished to look like them. Regardless of how accomplished Engeln-Maddox's (2013) participants were professionally or how supported, they were by family and friends, the assessment of their bodies as beautiful remained a central and sometimes overwhelming concern. Engeln-Maddox's (2013) term gives a name to the objectifying of the body I recognize as problematic for my adolescent participants.

Imaginative Transformation. In Work It Out, I apply the inherently expressive nature of creative movement and choreography to address adolescent girls' relationships to their bodies and help them manage their body image issues. The key innovation in my approach to teaching dance is its creative focus and use of dance as play. The playful aspect of this course stems from the creative movement focus of the program, which follows Eisner's (2006) concept of 'imaginative transformation.' For Eisner (2006), meaningful learning through the arts happens when students take inspiration from others but do not attempt to mimic. When students use learned techniques to create something that expresses their own ideas, likes, or experiences, engaging with the arts becomes educative. I followed Eisner's (2006) ideas by allowing girls to dance using movements of their own invention. Rather than mimicking taught steps (as would be the case in a traditional dance class), the girls played within their range of physical abilities.

Theorizing Play

At its core, Work It Out engages with the notion that play provides a platform to address adolescent girls' body image issues. This program thus incorporated my belief that creative dance is a purposeful pedagogical tool. By placing the voices of pertinent scholars into conversation with my own thinking, I explain why dance is an effective way to create a more positive relationship between young girls and their developing bodies. I discuss my approach to teaching dance in a body-positive way by engaging with the theories and research of other scholars. I then link the literature to the pedagogical features of my program, namely (a) play-based focus, (b) process orientation, and (c) emphasis on creative self-expression. Collectively,

these features foster an inclusive classroom where girls can openly discuss body image, while offsetting the objectification of the young female body prevalent in the traditional dance classroom.

Bettleheim (1972) defines 'play' during adolescence as behaviors that test social and physical boundaries. It is a method of trial and error, 'evidenced [for the adolescent] in "playing" with problems, the belief in "magic" solutions, and, most dramatically, reliance by some on drugs' (Bettleheim, 1972, pp. 1–2). Bettleheim further explains how this playful action assists adolescents in solving social discord, as it has 'no rules other than those which he [the adolescent] himself imposes' (pp. 4–5). The player, or the adolescent, in this situation is in charge of what they choose to do or not to do. Depending on the outcome of his/her play, the adolescent garners information about how his/her behavior has assisted in alleviating his/her original social/emotional concerns. Bettleheim's contribution to my work is in his acknowledging that adolescents socially play with their problems and insecurities. His explanation that for an adolescent being in charge of their own behavior or play is important supports my understanding that using a student-led approach for Work It Out is appropriate.

In this project, I understood the emotional concerns of my participants through Erik Erikson's psychosocial theory of human development (1950). Erikson's work supports my understanding of social stress as extremely influential during adolescence. By negating the assumption that childhood and adolescence is a carefree and therefore crisis-free time in life (Christensen & James, 2008), Erikson establishes there are indeed emotional concerns specific to adolescence. For children and adolescents, Erikson (1950) explains, these crises pertain to the stress of learning to trust the people around them and, later, establishing themselves alongside peers, with family, and in the world. Most relevant here is that the emotional struggles faced by adolescents are predicated on how they relate to their peers.

Poor body image is related to the social crises Erikson identifies. For the girls with whom I worked, the aesthetics and abilities of their body affected how they believed they fit into society. I define 'body image' as how girls' believe they relate to idealizations of the female body in society (O'Flynn, Pryor, & Gray, 2013; Engeln-Maddox, 2005; Bordo, 2003; Foster, 1997; Fredrickson & Roberts, 1997). Although the specific physical characteristics girls covet are entirely individual, the negative effects that arise from comparisons with female icons (e.g., peers and celebrities) are the same, leading to self-objectification and lowered body image. Erikson's theory about adolescent struggle points to the importance of interactions with others during adolescence, noting both the individual nature of the issues experienced and the influence of peers' reactions (O'Flynn et al., 2013; Erikson, 1950). In lieu of this assertion, I began to question whether opening up conversations with other adolescent girls would help the girls to deal with their thoughts about body image; and, if so, would engaging more playfully with their bodies help to alleviate some of the pressure girls feel in deciphering their place in relation to body ideals and femininity?

Another consideration in my choice to use dance in Work It Out was the impact of popular culture on adolescent girls and body image. As an object of study, the

'girl' has been understood in scholarship as 'an assemblage of social and cultural issues and questions rather than a field of physical facts, however much the girl's empirical materiality is crucial to that assemblage' (Driscoll, 2002, pp. 13–14). The common thread weaving through published literature about the girl figure is an emphasis on the self, self-making, and selfhood. Moreover, the social pressures of satisfying iterations of 'ideal girlhood' result in 'middle childhood girls [tweens] begin[ning] to loose who they are' (Coulter, 2014, p. 147). Popular characterizations of this drive for self include (a) the girl in transition awaiting womanhood or puberty (Driscoll, 2002; Welter, 1966), (b) an entrenched bifurcation of possible girl personas in popular culture that construct girls as either/or (Coulter, 2014; Keenan & Darms, 2013; Aapola, Gonick, & Harris, 2005; Bettis & Adams, 2005; Gonick, 2005; Harris, 2004; Phipher, 1994; McRobbie, 1994; Wolf, 2002), and (c) girls as individuals comparing and situating themselves in relation to their peers (Daniels, 2009; Pomerantz, 2008; Mitchell & Reid-Walsh, 2005; Ornstein, 1994). Depending on what behaviors girls understand as appropriate or desirable within a social context, they compare and valorize paradigms such as the nice/mean, popular/nerdy, or chaste/slutty girl. This idea connects to my programming choices in that the girls who entered my classes were aware of the possible personas of 'proper girlhood' and the related popular culture surrounding girlhood (Aapola et al., 2005).

In Work It Out, a variety of these female paradigms were represented through a use of popular music. Their choices of musical accompaniment and requests to listen to certain female artists raised discussions about why they idolized particular artists. The descriptors girls used for these pop icons were then applied to the way girls represented themselves through the choreographic choices they made. Using dance and popular music to fuel critical conversations about how the media represents girls and, conversely, how they represent themselves in choreography thus provided insight into body image and femininity.

Methodology

The overall methodological framework for my research is based on the principles of education-based Participatory Action Research (PAR). I chose PAR as the basis for my methodological approach due to its pedagogically sensitive characteristics (Lykes & Hershberg, 2007). Specifically, these characteristics are: (a) practice-based inquiry and an interactive delivery, (b) a social change orientation, (c) an ongoing insider positioning and critical self-reflection, and (d) an acknowledgment of the classroom as the lab space. Collectively, these features cater to the creation of the inclusive, body-positive dance classroom.

The hands-on approach of PAR connects directly to my project and programming. In PAR, 'the emphasis is "practical," that is, on the interpretations teachers and students are making and acting on in the situation' (Kemmis, McTaggart, & Nixon, 2014, p. 11). Kemmis et al. (2014) provide readers with a broad but

informed understanding of how and when PAR is most effectively employed. They give the example of tracking the formation of a student-run recycling program at Braxton High School. In this example, the research began with a student focus group aimed at revealing 'students' views of what engages/disengages them in their learning, what helps/prevents them from being agents of change in their own and others' lives, and what creates/corrodes an inclusive school culture' (Kemmis et al., 2014, p. 7). After collecting student ideas via a school-wide survey, it became clear that many students were concerned about the effects of greenhouse gases on the environment and wished they knew more about how to prevent further damage to ecosystems. As a result, the school science teacher assisted the school's student council to create learning modules teaching how and what to recycle. In so doing, the students began to interact with one another, finding new ways to solve and serve their collective concerns about the environment. Notably, while the science teacher assisted students throughout this project, she acted more as a supportive guide and not a dictator of ideas (Kemmis et al., 2014, pp. 7–9).

Building upon this example, my program called girls to come together to create dance pieces that reflected their concerns about body image. Like the teachers at Braxton High, I served as a guide and support for students to speak with and answer questions, though students governed the creative process. The focus was on their ideas, concerns, movements, and expressions. Secondary to this expression, the program aimed to find more positive ways of framing the girls' relationships with their bodies. As such, I encouraged the students to embody what Herbert (2005) refers to as 'owning the discourse: seizing the power!' (Kemmis et al., 2014, p. 5). In PAR, theoretical inquiry may begin the study but becomes secondary to the practical application and action resulting from ideas that emerge throughout the research process.

In PAR, my stance as an insider to both the dance and the elementary school classroom served as a positive feature of the research. Whereas in other frameworks being an insider presents challenges in regard to held biases, in PAR the researcher works with participants to investigate the effectiveness of a practice by which they are affected. In this way, the researcher should be an insider to the population or practice they investigate, since 'participatory research creates the conditions for practitioners individually and collectively, to transform the conduct and consequences of their practice to meet the needs of changing times' (Kemmis et al., 2014: 6). My experience as a dance educator and body image scholar fueled my research as it related to PAR. I created the Work It Out program in response to the unjustness of the traditional dance classroom and irrational/unsustainable nature of current body image programming options. Customarily, the dance classroom trains the body to perform particular movements and exhibit certain aesthetics. This ideal dancing body that dancers and teachers strive toward is, for many, unrealistic to obtain. The result of this tactic in dance sets unreasonable goals upon students, which can negatively affect their body image, self-worth, and overall engagement with dance practice. Existing programs that address body image issues with adolescent girls attack this issue by discussing media, defining disorders resulting from representations, and providing reflective journaling opportunities for girls to use in

resolving their personal perceptions of their bodies. What body image-centered programs nor traditional dance classes do not do, however, is harness the power of embodied creativity and self-expression to open pathways between a girl's sense of self and perceptions of her own body, as my program aimed to do.

Work It Out: What's This All About?

The creation of a program for girls—Work It Out—was at the center of this project. In adopting this new playful teaching tactic, I endeavored to apply the inherently expressive nature of creative dance and choreography to assist girls in conveying their experience of girlhood and how it affects or relates to the body and body image. This program was teacher-guided and student-led, where participants engaged with their moving bodies, reflecting, creating, and commenting on the many uses and perspectives they held about their bodies. In contrast to other popular body image-centered programs (i.e., the Dove Self-Esteem Project® and Girls on the Run®), Work it Out did not give students particular lingo, statistics, or ideals to counter negative self-image. Instead, it used self-reflexive journaling, group dance, and creative dance to allow girls room for personal and artistic expression. In this way, I did not direct the students to a particular conclusion about their bodies, but instead guided them through the program, which by encouraging self-reflection and inquiry, led the girls to recognize their skills through their dancing. Although not the first program to use dance practice to foster student engagement, to draw upon Shared Movement strategies, or to explore the choreographic process with young dancers, this program was the first to do so with a focus on body image.

The idea to focus on body image, and to use dance to do so, stemmed from my previous research experience. In my master's research, I examined how and why regular engagement with dance fitness (i.e., Zumba Fitness®) affected adolescent girls' confidence and leadership skills. I did this by running weekly Zumba Fitness® classes at multiple schools and tracking trends in the explanations students offered in each session as to why our classes were different than other dance experiences. One of the most popular admissions of my participants was that because Zumba Fitness® was a form of exercise, it made them feel good that they were working to control their weight. Notably, the girls' interpretation in this context highlighted that most of the information they learned about the value of dance in school revolved around their perceptions of beauty and their body. I received responses such as:

'I think Zumba is good because it's like exercise' (Kayla, Grade 6).

'We do Zumba at school because it's important to be healthy and Zumba helps us to do that' (Diamond, Grade 6).

'If I didn't do Zumba then I would be sitting down at my desk. I sit a lot of the time at school and so moving helps me to feel better and not get fat' (Melody, Grade 6).

This reaction effectively glossed over any assessment of their intellectual or emotional capacities and worked against the initial goal of my project. Girls connecting their involvement in my dance lessons to exercise and weight loss was a recurring theme throughout my research on dance fitness. More importantly, it was the only prominent reaction that encouraged girls to take part in my classes but did not directly foster leadership. For this reason, I felt that this area of girls' body image programming was lacking and needed to be addressed further.

The Work It Out program uses dance as a communal experience. While the inspiration for this tactic resulted from my work with Zumba Fitness®, I did not use the music or movements from that exercise regime. Work It Out was an entirely new program. In my classes, I adopted a motto, which I encouraged all students to adopt. When faced with a confusing step or sequence, I told them to remember, 'When in doubt, shake about.' I taught all of the student participants this saying on the first day of class. At first, they giggled at it, though they soon came to memorize and internalize it as a method for self-encouragement. This 'shake about' mentality is one of the key principles of my programming. This saying encourages inclusivity and diverse people to find their comfort zone within what could otherwise be a very unfamiliar and therefore uncomfortable framework.

Another key feature of this programming is the inclusion of self-reflexive activities geared toward body image. Throughout the class, students were called to journal and discuss their body conceptualizations. Students accomplished this by separating the body into sections (i.e., upper body, mid-body, lower body) and dealing with one body segment at a time. Having a journal to write down the movements or ideas they had when thinking about their bodies allowed the girls who were uncomfortable with sharing their thoughts publicly to create a body image dialogue with themselves. Group discussion worked to solidify relationships between participants as the girls learnt about shared ideas, experiences, likes, and dislikes. As part of this evaluation, I asked the girls to complete a Body Satisfaction Scale (BSS) survey, which I adapted to suit the age level of the girls with whom I worked.

Lastly, I designed this programming to support student understanding using a scaffolding learning approach. To scaffold in a pedagogical approach describes 'certain kinds of support which learners receive in their interaction with parents, teachers and other "mentors" as they move towards new skills, concepts or levels of understanding,' and recognizes the 'temporary, but essential, nature of the mentor's assistance as the learner advances in knowledge and understanding'. While this gradual approach is commonly used in education, the current formation of the Ontario dance curriculum and offerings in dance does not support this ideal. In this way, students are less inclined to engage with dance practice in the classroom, as they are unsupported in their learning. In contrast, the body image programs taught in schools use what I describe as a 'tell to teach' methodology. Rather than leading students slowly through a series of reflexive exercises, they provide students with concrete definitions, information, and ideas about the body and its conceptualization. This minimizes the opportunity for students to engage critically with their own

body image perceptions while concurrently erasing the ability for students to gain new and positive relationships with their bodies.

Scaffolding in my program was achieved in two ways. Firstly, I organized the program in five units, which gradually took students through the parts of the body and their movement potentials: The Elements of Dance (Weeks 1–2), Upper Body (Weeks 3–4), Mid-Body (Weeks 5–6), Lower Body (Weeks 7–8), and Whole Body Dancing and Culmination (Weeks 9–10). Secondly, each lesson built toward student independence through a three-part lesson: (a) Discussion/Reflection (inspired by PAR researchers), (b) Shared Movement (influenced by my Zumba Fitness® experiences and the scholarly writing of McNeil 2008), and (c) Creative Movement/Reflection (as described in the dance education research of Henley, 2014). Below, I further explain these three sections and their rationale.

The Discussion/Reflection section of my three-part lesson model introduced that day's key body-centered themes. Vinent and Fernandez (2016) began their research sessions with 'practice/research,' which involved interviewing students. I adapted their approach by choosing to begin my classes with shared discussion rather than a formal interview, thus beginning on a less formal, more reflexive note. During this first section, the girls completed the modified BSS and had the opportunity to share their thoughts voluntarily with one another. I chose to use the survey and shared discussion to activate the girls' critical thought and reflection process before asking them to move. If I had begun with movement (as in a regular dance class), the focus would have shifted toward the mastery of dance moves rather than internal dialogue with their bodies in relation to their body image. This discussion then set an intention and framework for the girls to enter into the action section of the class that was both emotional and physical (Giguere, 2011; Stinson, 2015). Furthermore, the small group setting aided in establishing the classroom as a 'safe space' for expressing ideas.

The second section of class, Shared Movement, included a warm-up and collection of group dances inspired by, but not taken from, the Zumba Fitness® class model. This departed from the traditional dance class, as it did not focus on the acquisition of particular skills/technique. Instead, participants collectively learned and performed pre-choreographed dances by following along with the instructor (me). In this setting, 'pre-choreographed' refers to a collection of dances that are choreographed in advance to be repetitive, simple, and performed in unison. The students learned these dances through modeling in the first weeks and then practiced them throughout the ten-week course. Although the group choreography remained the same over the course, the body segment focused on changed from week to week. In this way, student engagement with their body conceptualization was also scaffolded, as we moved through the body over the course of the program. The teacher (me) verbally and gesturally focused attention to the body segments while moving. In particular, I asked the girls to focus on how their body parts moved and invited them to explore physical ways of altering the quality of those movements. The goal in this section was to bring awareness to those body parts and their movement potentials. This Shared Movement section also provided the girls

with the opportunity to become gradually comfortable moving alongside their peers in preparation for their small group choreography assignments.

Scholarly literature supports a Shared Movement approach to dance pedagogy (Nieri & Hughes, 2016; McNeil, 2008), as has my own experience working with women and girls as a Zumba Fitness® instructor. As a fairly new fitness form, Zumba Fitness® has not been subject to much scholarly study. In the only published scholarly article on Zumba Fitness®, Nieri and Hughes (2016) find that the party-like atmosphere lead their female participants to perceive '[…] Zumba to prioritize fun over work and process over outcomes; value individual autonomy and personalization rather than strict conformity; and engage the participant as more than just a body to be shaped' (Nieri & Hughes, 2016, p. 2). It is important to note that this research did not successfully determine whether these outcomes derived from Shared Movements or were side effects of participants viewing Zumba Fitness® as 'exotic' or 'Latin,' given that the 'party-like atmosphere' is associated with Latin-American dances and cultures in this practice. This is an important point to note because other research has revealed that by engaging with dance forms from outside of their own culture, women, namely Americans, gain a sense of embodied liberation through self-exotification. In relation to Work It Out and my participants, this understanding demonstrates that there are many reasons why dance inspires people to move. It is possible then that for some of my participants dance provides them with an opportunity to play with self-exotification.

McNeill (2008) is more helpful in explaining the positive social and emotional effects that Shared Movement practices have on participants. In his book, McNeill (2008) asserts that when groups of people march, dance, and physically engage with one another, the shared action renders emotional connections within the group. The result, then, is positive affiliations with one another and a sense of collective accomplishment (McNeill, 2008, p. 23). For these reasons, I argue that moving together during the warm-up and pre-choreographed routine created a sense of community for the girls, giving them a safe space in which to explore, express, and move.

The final section of my lesson plan, Creative Movement/Reflection, draws from the work of dance educator Henley (2014) who emphasizes the intellectual and emotional aspects of dance. Henley (2014, p. 95) views dance and dance education as part of a 'perceptual-motor-emotional-world'—a perspective that departs from the traditional technique-focused dance classroom. As an advocate for dance pedagogy in the classroom that provokes critical thought, Henley (2014) asserts that 'perception, action, and emotion accessed through… [dance helps] students understand how movement conveys meaning' (p. 96). For example, the choreography that the girls created using their bodies encouraged them to think about, move with, and express ideas they had about themselves. It challenged them to convey the feelings and ideas they had about their bodies through dance and, in doing so, convey meaning.

Building on Henley's ideas, in the final part of each lesson, I asked the girls to create short pieces of choreography that focused on that day's body section. Working in small groups, the girls began by comparing their journal ideas and

choosing as a group those that were most true to them as a source of inspiration. The list they created helped them to generate movement for choreography and provided them with an opportunity to explore their ideas about their bodies kinesthetically. Each week, the girls added to and edited this choreography, using the new ideas they generated through journaling as well as the new body segments we explored. The composition exercise focused on playing with movement, combining ideas with peers, and facilitating the exploration of their body and its meanings.

Results and Findings

At this time, I have successfully run two sections of my classes one in a co-ed setting and the other in a girls-only environment[1]. Both of these settings were in elementary schools and with students in grades five and six. Classroom teachers were present for all lessons at each placement but did not partake in teaching the material. With students and teachers occupying different roles in this setting, I feel it is important to discuss commonalities recognized in their responses to the work separately.

The Students

ENGAGEMENT: In both settings, students were genuinely excited to begin our classes. For some, this stemmed from previous experience in dance (i.e., they possess 'state confidence'[2] in their abilities) and for others, it was more the excitement of being freed from their desks. Overall, the explanation that they were not being formally marked on their participation relieved stress for many participants. Taking away the traditional evaluative approach to engagement with lessons allowed participants to gradually become familiar with play in dance class. The pressure to perform immediately was removed and as a result made the experience more fun for many.

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[1]The all girl setting was at a private school. It is important to highlight this as being a private school the class size is smaller and the general social status of students is of a more affluent nature. Many of the girls had some background in dance or gymnastics as well. This would have added to their feeling of higher confidence.

[2]Daniel R. Gould explains confidence to be either dispositional or state where, 'dispositional confidence' relates to an individual's general concept of their athletic ability and 'state confidence' is situational and based on experience performing in certain environments rendering high or low levels of personal confidence (Gould 57).

SETTING: The co-ed and girls-only settings were very different in how the participants freely expressed ideas. While I would not say that the girls in the co-ed setting were quieted by the boys' presence, they were more hesitant to share. Furthermore, the girls instantly gravitated to one another when working on choreography—a behavior I find indicative of who they are most comfortable playing with.

BEING SEEN: Generally speaking, being seen by peers is a fear-inducing thought for students. This is even more pressing for those students who are less confident with their dance abilities. Within my dance classroom personal placement during lessons is telling of how developed student confidence is (i.e., standing at the front of the classroom where everyone can see them signifies more self-assurance than standing off to the sides or in the back of the room). What is interesting about the playful and communal aspect of my approach to dance is that it opened participants to being more adventurous about where they placed themselves during class. During one group dance, I would ask students to find a new place in the room. They had a specific amount of time to do so and would move their placement multiple times before the song was over. The approach made standing in different spots like a game. Furthermore, students knew that they would not have to be in a particular spot for very long. The focus was then taken away from being seen and placed instead upon the desire to play in the space provided.

The Teachers

PARTICIPATION: Teachers in each setting acted as assistants. They mainly helped in organizing and supervising students. In each case, teachers refrained from participating in any physical movement until mid-way through the session. This is interesting to me as it signifies how even the teachers needed time to process the format of the class before allowing themselves to move with and in front of their students. This idea is further supported by the multiple admissions by teachers that they 'have no idea how to dance' or were, 'so happy to have an experienced dancer leading the class.' For teachers taking time to watch and learn steps before moving allowed them to maintain their sense of authority in front of students while simultaneously taking in new information.

DISCUSSION: Teachers all instantly involved themselves in the first portion of the lessons (i.e., the discussion section). They would share their own ideas or brainstorm alongside students. I find this interesting in that from a teacher's point of view talking about dance was an easier entry point to understanding dance pedagogy than actually moving.

The promise my findings show is in regard to revealing how and why dance can be considered a form of play. Moreover, it advocates for the ways that engaging with the body in a playful manner through choreography allows students to not only think and speak about their body image issues but also express them. The body in this context is made active in the discussion on body image, which ultimately draws

attention away from self-objectification. Students are able to explore their physical abilities while recognizing how their thoughts about the body support or differ from their conceptualizations. At the center of recognizing, the ability of the body over aesthetics is building appreciation for the body. As a result, students are more likely to improve self-esteem and be better prepared to engage more confidently with peers socially and academically. In completing this project, I endeavor to bring my work into the school board as a more effective alternative to their current offerings for girl-centered programming and dance pedagogy.

Concluding Thoughts and Future Directions

I took on this research as a way to address the pressing issue of negative body image for girls. Having struggled for many years to accept and appreciate my own physicality I have pursued this project from an informed and personal point of view. I was not so lucky as a young girl to have teachers who recognized my depleting body image, nor were there programming options then to aid in fostering a sense of body appreciation for young girls like me. I often wonder what would have happened if my schooling had provided me with the kind of body image support that is available today? Would I have struggled for as long as I did? Are there opportunities I missed out on because I was so uncomfortable in my own skin? Although I will never know the answers to these questions I do know that they have fueled the creation of this research and the Work It Out program.

The major contributions I see in this work are its acknowledgment of the need to study girls and body image with a more constructivist frame of mind. Pedagogically, current body image programs (e.g., Dove Self-Esteem Project® and Girls on the Run®) operate under the assumption that girls' main problem with body image is tied to either: 1. beauty ideals; or 2. a mastery over the body. While for some girls this could be true, the responses of my participants have relayed a more diverse relationship between girls and body image. Some worried about physical ability in comparison with peers and graded assessment, others struggled to openly share their ideas with classmates, and a few grappled with satisfying their definition of ideal health. Regardless of what specific matter was most pressing for my participants, each girl who took part in Work It Out came into class with their own ideas about and issues with body image. This means that if we continue with current programs, (which are singular in their understanding of body image) the number of girls that are supported is severely limited.

What I ultimately hope this work will inspire is recognition: recognition of body image as more than an issue that is about vanity; recognition of how rampant it is in young girls today; and recognition of dance as a practice that can inspire students to share with one another, achieve a profound sense of confidence, and help them to successfully form a loving relationship between themselves and their bodies.

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Chapter 8
What Do We Expect from In-depth Arts Integration? Criteria for Designing "Aesthetic Teaching" Activities

Marina Sotiropoulou-Zormpala

Abstract It seems that when the arts are included in contemporary formal education, they mainly have two educational roles: either that of a teaching discipline or that of a teaching medium. A third rarely used role, in which the arts are ways of (aesthetically) approaching the taught subject, might lead to an "aesthetic teaching". In this chapter, "aesthetic teaching" is examined methodologically, in an effort to link its conceptual framework with classroom practice. Correlations are then sought between various contemporary theoretical principles and the expected outcomes from aesthetic teaching. Thus, some of the basic characteristics that should govern aesthetic teaching activities are revealed. Evidence that arose from pilot implementations of such activities contributes to this process. This study concludes with an articulation of a new, more analytical definition of aesthetic teaching, as a situation that encourages both educators and children to approach the taught subject in a multisensory-productive, connotative-creative, multilogical-multifaceted, aesthetic and motivational way. The last section, on the basis of this definition, deals with the specific criteria for designing aesthetic teaching activities.

Introduction

Over the last 30 years, research on integrating the arts into formal education has shed light on indications linking children's involvement in the arts with the development of social, behavioural and academic skills, and improvements in the learning environment (Deasy, 2002; Fiske, 1999; Hallam, 2010; LaJevic, 2013; Rooney, 2004; Winner, Goldstein, & Vincent-Lancrin, 2013). Recently, much research has been devoted to the positive impact on cognition of involving oneself in the arts (Dorn, 1999; Efland, 2002; Eisner, 2002; Gazzaniga, 2008; Hyde et al., 2009; Melnick, Witmer, & Strickland, 2011; Posner & Patoine, 2009). Although new facets of the value of arts education have been highlighted, the place of the arts

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in education has not improved (Denac, 2014; Gelineau, 2012; OECD 2012). The enthusiasm caused by findings presented at academic meetings and exchanges has not translated into an impetus for reforms, to qualitatively and quantitatively improve the role of the arts in school curricula. This may have to do with the fact that neither the educational nor the research community are prepared to clearly answer basic questions about important aspects of arts integration such as "What can be learned by integrating the arts in school?" and "How can arts integration be put in practice successfully?" The discrete educational advantages of students' involvement in the arts have not yet been articulated entirely and convincingly. It seems to be necessary to seek criteria to design practices in schools in which the educational value of the arts can be used by students.

Another issue is that the research into the benefits of arts integration usually compares samples of children who are taught the arts to a greater extent than others. Arts-rich curricula are considered to be those that incorporate more hours of arts classes and/or use the arts more systematically to teach non-arts subjects. Research does not sufficiently focus on the qualitative characteristics of arts activities (indicative exceptions: Cho & Vitale, 2014; Oreck, 2002; Russell-Bowie, 2009), while it is evident that measuring the "dosage" of arts activities in a school environment (how many classes, how many hours, how frequently, compulsory or elective) is not enough to reach trustworthy conclusions on the pedagogical value of the arts. According to Winner et al. (2013), "many studies have looked for academic improvement outcomes but failed to analyse the nature of the teaching" (p. 58). It is necessary to further investigate the qualitative characteristics of the strategies of teaching: on what theoretical basis are they designed, what are their objectives, what are their characteristics, how does their instructional model arise and how are they implemented.

This chapter will attempt methodologically to analyse a type of arts integration activity which could constitute an "aesthetic teaching" for every taught subject. The next section of the paper will lay out the reasoning and definition of the concept of "aesthetic teaching" as discussed in the relevant literature. A review will follow the various theoretical paradigms that are consistent with the analysis of "aesthetic teaching". Correlations will then be sought between the theoretical principles that have been examined and the expected outcomes from aesthetic teaching, and some of the basic characteristics that should govern aesthetic teaching activities will be revealed. In this section, evidence will be presented that arose from pilot implementations of such activities. In the last part of this chapter, a new, more analytical definition of aesthetic teaching will be presented and on the basis of this definition, specific criteria for designing aesthetic teaching activities will be introduced. The possible impact of aesthetic teaching on arts education—and education in general—will then be discussed, followed by the directions that future research must explore.

The "Aesthetic Teaching" Concept

A first step in studying arts integration is to examine the educational roles attached to the arts in current curricula. It seems that when the arts are included in contemporary formal education, they mainly have two roles: essentialist and contextual (Bresler, 2002; Burnaford, Brown, Doherty, & McLaughlin, 2007; Burton, Horowitz, & Abeles, 1999; Sotiropoulou-Zormpala, 2012a). In their essentialist role, the arts become a teaching discipline; these are arts classes included in curricula which usually, and in their order of frequency, are classes of literature, the visual arts, music, theatre and movement (Eurydice, 2009). In these classes, children are taught subjects in and about the arts (Lindstrom, 2012) and are provided the opportunity to engage in art making, art history, art criticism and aesthetics (Dobbs, 1998; Smith, 2005). Generally, in these classes, children benefit from the intrinsic value of the arts (Dorn, 2000; Eisner, 1999, 2002; Reimer & Smith, 1992). More recently, the contextualist role of incorporating the arts in education developed (Read, 1943). In this case, the arts become a means of teaching; these are arts activities that permeate the entire curriculum and are auxiliary in the teaching of non-arts classes (Burnaford, Aprill, & Weiss, 2007; Deasy, 2003; Eisner, 1999; Winner & Hetland, 2007). In more recent literature, this is studied under the terms "arts integration" and/or "teaching through the arts" (Garrett, 2013; Gelineau, 2012; Goff & Ludwig, 2013; Parsons, 2004; Rooney, 2004; Smithrim & Upitis, 2005; Winner et al., 2013). In this context, the arts are used in an effort to improve the learning environment and teaching effectiveness.

Among scholars in these fields, a dialogue has developed that aims to highlight the advantages and disadvantages of each type of the two roles (Bamford, 2006; Bresler, 2007; Burnaford et al., 2007; Duncum, 2002; Eisner, 1999, 2006; Parsons, 2004; Richmond, 2009; Smith, 1995; Veblen & Elliott, 2000; Winner & Hetland, 2007). When arts assume their essentialist role (teaching the arts), the main advantage seems to be that children's attention is focused on the artistic processes. The disadvantages have to do with excluding children's artistic involvement during specific lessons. The arts are isolated from the other, "serious" lessons, are implemented independently from other subjects and are frequently taught by specialist art teachers who do not have an intimate knowledge of the entire curriculum. When arts assume their contextual role (teaching through the arts), the advantages are that they spread throughout the entire curriculum and create a more attractive learning environment for children. In this case, however, the artistic process would seem to be an embellishment, assisting in the teaching of a particular subject. The arts are diminished and their place in curricula is frequently considered justified only when they serve developmental and academic goals. All of the above leads many contemporary scholars to advocate for a parallel use of teaching the arts and teaching through the arts in curricula, mainly in primary education (Horowitz & Webb-Dempsey, 2002; Russell & Zembylas, 2007; Veblen & Elliott, 2000).

In this chapter, there is an effort to articulate a new concept, according to which the necessity of integrating the arts in all parts of curricula is substantiated by the

unique and indispensable benefits that flow from the artistic process. Raising the bar of expectations, a third rarely used role for the arts is examined, one which contains the advantages of both cases discussed above, and avoids their disadvantages: in this role, the arts are ways of (aesthetically) approaching taught knowledge. A new type of arts pedagogy is studied in which the arts, while having a contextualist flexibility, may give rise to the development of aesthetic experiences and knowledge, making academic classes seem "more like arts classes" (Winner & Hetland, 2007, p. 3). This is a situation in which the teaching process is relieved of its rational, diagrammatic, verbalistic and behaviouralistic tendencies and matches the concept of the term "aesthetic teaching".

According to the traits attributed to it on a theoretical level (Granger, 2006; Macintyre-Latta, 2004; Pike, 2004), aesthetic teaching can be defined as a situation that encourages students to focus on the "aestheticity" of each subject they are being taught. On the basis of what Broudy (1994) maintains, children are called upon to participate in situations so as to adopt aesthetic responses and more generally develop an aesthetic attitude with regard to the subject they are being taught. Recent studies show that current western educational systems have a positive outlook on teaching practices with an aesthetic orientation (Anderson, 2016; Biscotte, 2015; Griffin et al., 2017; Ho, 2017; Strand, 2016).

Theoretical Foundations Associated with Aesthetic Teaching

While aesthetic teaching seems to be a rarely tapped facet of arts education in modern schools, there seems to be no lack of theoretical reflection that might be useful in studying it. Various scholars have expressed different views and, without using the term "aesthetic teaching", provided clues that could help investigate it. These are different theoretical foundations which, although each has its own philosophy and logic, are suffused by a common concept: that of a multiplicity of factors that contribute to learning (Kress, 2007; Levin, Levin, & Waddoups, 2014); more specifically, a multiplicity of the forms of representation, the levels of signification, the parts of the intellect, the communication modalities, the fields of literacies, and the factors in learning engagement. Thus, it is worth examining if, despite the fact that the theoretical frameworks seem to be stand-alone paradigms, with regard to the concept of aesthetic teaching, they can function among themselves in a complementary way.

In a first theoretical trend in current research, an important pillar of which is Eisner (2002, 2006) and other scholars (Deasy, 2003; Dorn, 1999; Efland, 2004; Goodman, 1978; Parsons, 1992), the arts are considered to be modes of approaching the world. According to Eisner (1985), individuals can approach reality in different forms of representation through their senses. Each one of these is related to understanding and expressing a particular aspect of one's experience. On this basis,

the modes of approach to a taught subject influence the meanings one derives and communicates and thus formulate one's perspective on the world (Greene, 2001; Blanken-Webb, 2014; Crotty, 2014). An educational framework in which children have opportunities to use different and/or multiple forms of representations of the subject being taught provides fuller learning experiences. And the opposite is also true, when in the framework of education some forms of representations are not utilized, a part of knowledge is omitted. It is important to note the wealth that arises from linking what emerges from combining different representation forms, as each one functions interactively, rather than independently. This view fits in with aesthetic teaching, which is considered a part of arts education in which every art is used as a beneficial and irreplaceable area of structuring and communicating specific versions of taught subjects. Aesthetic teaching, thus, is a condition in which children "design themselves" on a learning level (Eisner, 2004, p. 11).

Another theoretical paradigm which allows us to ascertain what aesthetic teaching is can be sought in an elementary principle in semiotics: multiple senses can be attributed to a representative sign that greatly transcend what it seems to mean at first sight (Bal, 1998; Hartley, 2002). To explain this phenomenon, the terms "denotation" and "connotation" are useful, as they offer an explanation of the mechanisms of attributing meaning to representations, not only linguistic, but also visual, movement, auditory, etc. (Barthes, Lavers, & Smith, 1967; Nattiez, 1976). In denotation, a signifier (figure) refers to a signified (that which the figure represents), which arises from a first-order analysis and refers to the most direct meaning of the signifier. In connotation, a denotative pair "signifier–signified" is used as a new signifier on to which an added signified is attached, that is a sense which transcends literal meaning and enriches it. This process is considered to be signification on a second order, as a connotation contains the denotation, but is not limited to it. Through connotative processing, a representation acquires a personal-subjective overtone, influenced by personal and cultural elements of the individuals who perceive and conceive (Eco, 1976; Potts, 1996). As can be seen, the signification of a representation has a first literal-realistic level and can continue with multiple symbolic approaches. Indicative of this spirit is the transactional theory of Rosenblatt (1986, 2005), according to which a reader can approach a text in two ways: an "efferent" way, when the reader focuses on specific linguistic parameters, or specific information contained in the text, and an "aesthetic" way, in which every reader develops a personal relationship with the text.

Aesthetic teaching could be perceived as a specific stage of arts education in which children can process whatever they learn on a level that is more connotative than denotative (Haynes, 2004). At this stage, children are not limited to the conventions of the subject they are being taught, but delve into the deeper meanings that they attribute to it (Jensen, 2015). It is worth noting the utility of both kinds of teaching approaches, as both are necessary to forming a perceptual circle: in arts integration, the individual is aided to come into contact with the conventional-literal dimensions of the subject being taught (teaching through the arts), then is called upon to interpret what has been perceived and to give it a symbolic-connotative

dimension (aesthetic teaching), thus creating new literalities. With this circle, each pupil participates in the development of the world.

A third, different, paradigm that could theoretically support the idea of "aesthetic teaching" arises from Gardner's theory of multiple intelligences (1983). According to Gardner, the various symbol systems correspond to different ways of thinking and accentuate different parts of the intellect. Gardner determined that modern schools privilege linguistic and logical manners of thought, and marginalize pupils who learn using other ways (Lynch, 2007). He pointed out different ways of understanding, such as musical intelligence (understanding and use of concepts such as melody, rhythm, harmony), spatial (understanding and use of three-dimensional space), kinaesthetic (understanding and use of movement), intrapersonal (understanding and use of our thoughts and feelings), interpersonal (understanding and interacting well with other people) and, more recently, existential, mental searchlight and laser intelligences (Gardner, 1999a). Research has shown that pupils who took part in activities based on the theory of multiplicity of intelligence achieve better academic results, deal better with their failures and have greater awareness of their own value (Broda, 2010; Gardner, 2006; Smithrim & Upitis, 2005). The theory of multiple intelligences provides a basis for arts education, given that "every intelligence has the potential to be mobilized for the arts" (Gardner, 1999b, p. 1). Aesthetic teaching can thus be considered as a part of arts education in which the arts contribute so that children can hone different types of intelligence, develop different ways of perceiving the subjects they are taught and be activated to learn, not only on a linguistic and logical, but also on a physical, social and affective level (Catterall, 2005; Deasy, 2002; Denac, 2014; Markovic, 2011; Miller, 2007; Rooney, 2004; Upitis, 2011; Winner et al., 2013).

Another fourth theoretical paradigm, that of multi-literacies (Cope & Kalantzis, 2000; The New London Group, 1996), can help examine aesthetic teaching. Within this framework, individuals must manage the needs of multimodal communication, which is based on multiple modes of meaning-making. For this reason, individuals must be "multi-literate"; that is, they must be able to codify and decode messages borne not only by words and numbers, but also by colours, shapes, textures, sounds, expressions, movements, etc. (Albers & Harste, 2007; Cope & Kalantzis, 2015; Narey, 2008; Whitin & Moench, 2015). Within the more specialized field of "aesthetic literacy" (Gale, 2005; Greene, 1981; Parsons, 1990), an individual's abilities are developed to produce artistic meanings, perceive messages contained in works of art and respond to these by his/her behaviour. An aesthetically literate person is sensitized to aesthetic stimuli and therefore has aesthetic experiences (Albers & Harste, 2007; Blumenfeld-Jones, 2012; Markovic, 2011). Aesthetic literacy contributes to the formation of an individual's aesthetic identity, stimulates social and internal conversations which can lead the individual to cognitive changes and meta-cognitive processes and promotes lifelong learning (Catterall, 2005; Hetland, Winner, Veenema, & Sheridan, 2013; Sean & Ihanainen, 2015). The relationship that develops between the individual and the arts within the framework of aesthetic literacy leads to an aesthetic connection to the entire world. Based on this, aesthetic teaching can be considered a part of education in which every taught

subject can be seen as a possible aesthetic stimulus, and every pupil as a potential aesthetic being. In fact, aesthetic teaching can constitute a fertile environment for aesthetic literacy and the higher the degree of aesthetic literacy of participating students, the more fully it can be implemented.

Other useful elements helping to understand aesthetic teaching, and more particularly its psychological environment, are to be found in flow experience theory (Csikszentmihalyi, 1991). According to this theory, an individual's experiences flow when he/she is intrinsically motivated in a task, exhibits a high level of concentration and engagement and feels time distortion, self-regulation, control over the process and personal satisfaction. A person's participation in an activity that puts him/her in a flow state is spontaneous and without any expectation of future benefits (Nakamura & Csikszentmihalyi, 2002). Flow arises in free, playful conditions, which are appropriately challenging to a person's skills and allow his/her autonomy (Csikszentmihalyi, 2014; Suttie, 2012). Similar characteristics are often attributed to arts activities that are considered most likely to favour flow in educational settings (Anderson, 2016; Cho & Vitale, 2014; Garces-Bacsal, Cohen, & Tan, 2011; Hetland et al., 2013; Shernoff & Csikszentmihalyi, 2009; Smithrim & Upitis, 2005; Vygotsky, 1933). Based on these studies, aesthetic teaching could be considered a part of arts integration in which the learning process rids itself of the intellectualist façade that the school environment frequently has, develops learning motivation and cultivates spontaneous and profound engagement in the learning process.

Aims and Characteristics of Aesthetic Teaching Activities

Aesthetic teaching activities are meant to be part of arts integration for all children in general education. Given that they are spread throughout all taught subjects, they are to be implemented mainly by generalist teachers. Therefore, these are arts activities with simple specifications that do not require specialized artistic knowledge and skills by whoever designs and implements them. Aesthetic teaching activities must not require specialized spaces, or facilities, but must be suitable to be implemented in a school classroom.

Besides these general characteristics, other traits will be examined below which correspond to the approaches discussed in the previous section, and appear, as far as possible, in the order in which they were discussed. For each theoretical approach, the expected aims are noted initially and from these arise the corresponding characteristics that aesthetic teaching activities must have. These correspondences are illustrated in the following Table 8.1.

The investigation of the traits of the aesthetic teaching activities that will follow is enhanced by findings derived from a preliminary evidence-based research project on aesthetic teaching (Sotiropoulou-Zormpala, 2012a, b, 2016). The project was implemented in preschool and early primary education classes in Greece (in urban and rural environments), which currently follow a cross-curricular programme

Table 8.1 "Aesthetic teaching" (A.T.) from theory to practice

Theoretical paradigms associated with A.T.	Multiplicity of forms of representation	Semiotics signification	Multiplicity of intelligences	Multi-literacies	Flow experience
Aims of A.T. activities	To produce and express new knowledge, approaching the taught subject with different senses	To process the subjects on a creative level	To understand the taught subjects in different ways	To process the aestheticity of the taught subjects	To increase children's engagement in the learning process
Characteristics of A.T. activities	Multisensory-productive	Connotative-creative	Multilogical-multifaceted	Aesthetic	Motivational

(Hellenic Pedagogical Institute—Ministry of Education and Religious Affairs, 2003). This project followed the steps of a "teaching design experiment" (Cobb, Confrey, DiSessa, Lehrer, & Schauble, 2003). At each step, the data were collected through participant observation (Emerson, Fretz, & Shaw, 2001), in specially formulated diaries and from the transcriptions of the audio and video recordings (after obtaining the necessary permissions) that were taken during the implementation of the aesthetic teaching activities. The transcriptions were subjected to content analysis. What was sought was indicators of an aesthetic approach to the taught subject by the children (e.g. creative responses, holistic activation, multimodal/arts involvement, deep and spontaneous engagement). In this way, the activities were gradually improved so as to cover ever more qualities of aesthetic teaching. Below, the findings from the implementation of one aesthetic teaching activity will be referred to as an indicative example so that the manner in which the theory is tied to the practice can more easily be understood.

Aesthetic Teaching as a Multisensory-Productive Approach to the Subject Taught

Aesthetic teaching is associated with a multisensory approach to the taught subject by the pupils, based on the relevant literature (Blanken-Webb, 2014; Crotty, 2014; Deasy, 2003; Dorn, 1999; Efland, 2004; Eisner, 1985, 2002, 2004, 2006; Goodman, 1978; Greene, 2001; Parsons, 1992). A basic aim of having children participate in aesthetic teaching activities is to allow them to acquire a full and rich learning experience, utilizing different senses and forms of art to produce and express the aesthetic dimension that each of them attributes to the subject taught.

For example, in one activity implemented as aesthetic teaching of the first numbers in kindergarten classes, children were asked to draw their favourite number on paper, colour it and modify it, however, they wished. Afterwards, the class tried to identify the number that served as the basis for each drawing, and each child explained what they had drawn, why and how. To explain their drawing, the children were encouraged to show how they imagined their favourite number, to do a presentation with words, sounds, movements, show how it talks, moves, what it says and what is happening. The activity was designed so that children could artistically process the grapheme of the number, enhance it with audio, movement and theatrical characteristics, so that each child would produce multi-arts results. Observation during the implementations showed that the children drew, played roles, were activated to produce sound and movement, came up with plots, and through all of this processed and presented many facets of the taught number. For example, for quite a few children in one class, the number 1 became very mobile: one child drew the number in a car, explained that it is the fastest number because it drives a Formula 1 car and pretended that he was driving. This stirred the other children, chiefly the boys, who mimicked the driving motions. This was how the

children explained the cardinality of the number: characteristically, one child said that 1 "was the most hurried and fastest number, that's why there's only one!".

It seems that the structure of aesthetic teaching activities must give pupils the opportunity to transcend the knowledge they have learned based on the curriculum, and to produce a new, unique content based on what they have been taught that is musical, has movement, colour, shape, plot, poetry, theatrical expression, etc. For this to occur, the instructions for aesthetic teaching activities should focus more on the processes to be followed, rather than on the results to be produced. The activities must develop in an open manner and allow channels to various kinds of aesthetic associations created by each child.

Aesthetic Teaching as a Personal and Creative Approach to the Subject Taught

Aesthetic teaching seems to elicit a personal approach to the taught subject (Bal, 1998; Hartley, 2002; Jensen, 2015; Barthes et al., 1967; Nattiez, 1976; Potts, 1996; Rosenblatt, 2005; Vygotsky, 1933). The goal is for children participating in aesthetic teaching activities to go beyond the objective dimension and the direct sense of the taught subject, and to delve into messages that arise from processing the subject on an interpretative and creative level.

With this aim in mind, the activity described above was designed so that children could discover how they themselves connect the logical-mathematical characteristics of numbers with the world outside the classroom, and what kind of personal interpretations they attribute to the numbers. During the implementations, it was observed that the children produced subjective and personal works on the numbers (e.g. one child drew the number 1 by itself "because it's proud and doesn't want anyone's company, that's why it has that little line at the top: it's its nose that's pointing upward, just like people who are snobs"). It was clear that what the children had been taught (cardinality and graphemes) became the object of interpretation on a deeper level (the number's cardinality and the grapheme were interpreted as arrogance).

It seems that aesthetic teaching should be designed as a way to balance the orientation of the teaching process. A lesson oriented towards the objective, conventional side of a subject can, through aesthetic teaching, be complemented with activities designed to elicit a symbolic, interpretative approach. Thus, aesthetic teaching is not designed to replace the practices of arts education as they are implemented today, but rather to complement them by correcting the incompleteness that characterizes them. Aesthetic teaching is designed so that children can delve deeper into the subject being taught, deal with it creatively, remove it from its conventional environment, feel sensible and free "to see the familiar in an unfamiliar light" (Smith, 1991, p. 144). Participating in aesthetic teaching activities, children should have opportunities to approach the taught subject without knowing

where this will lead them. Aesthetic teaching activities must be structured so that they create unscheduled situations, open to unusual and original ideas, and tolerant of the unexpected.

Aesthetic Teaching as a Multilogical-Multifaceted Approach to the Subject Taught

Aesthetic teaching seems to cultivate a variety of ways of thinking and learning about a taught subject (Broda, 2010; Catterall, 2005; Deasy, 2002; Denac, 2014; Gardner, 1983, 1999a, b, 2006; Lynch, 2007; Markovic, 2011; Miller, 2007; Smithrim & Upitis, 2005; Upitis, 2011; Winner et al., 2013). That is, one aim of aesthetic teaching is for children to use the arts so that they can work with multiple types of perception and learning with regard to the taught subject.

For example, the activity described above was designed so that children could approach the subject spatially (while they are drawing), act upon their work with logic and verbally (while they were formulating and explaining their ideas), include interpersonal and intrapersonal thoughts (when they were thinking up stories and actions for the number taught), think in a kinetic and aural manner (when they were performing their ideas) or combine some of these or other ways of thinking. When the activities were implemented, while the grapheme 1 was being taught, the time devoted by each child to each manner of thought or activation was different: some children devoted greater time to the drawing (paying particular attention to the spatial aspects of the number), others focused more on the character they attributed to the number (e.g. why number 1 was the leader), others looked forward to presenting their ideas through movement in space, others focused on the sounds of their ideas, others focused on the emotions the numbers brought out in them (e.g. "my favourite number is 1", "I don't like number 1 at all"), others attributed interpersonal characteristics to numbers ("number 1 argued with all the rest") and shared their meaning with the rest of the group (e.g. a little improvised sketch was performed spontaneously, in which "number 1 scolded all the rest of the numbers and they avoided number 1 so that it was left alone in the end").

Aesthetic teaching activities should provide children with the opportunities to discover ways of understanding that are suitable to their learning style and to try out different ways of functioning intellectually. Pupils who take part in aesthetic teaching activities must not be limited by traditional manners of thought, the linguistic and logical, but also use the musical, spatial, kinaesthetic, interpersonal, intrapersonal and other manners. Thus, these activities must provide opportunities for children to be influenced by the taught subject, not only on an intellectual, but also on a bodily, social and emotional level.

Aesthetic Teaching as a Multimodal-Aesthetic Approach to the Subject Taught

Aesthetic teaching can develop a multimodal-aesthetic approach to the subject being taught (Albers & Harste, 2007; Blumenfeld-Jones, 2012; Catterall, 2005; Cope & Kalantzis, 2000, 2015; Gale, 2005; Greene, 1981; Hetland et al., 2013; Narey, 2008; Parsons, 1990; Sean & Ihanainen, 2015; The New London Group, 1996; Whitin & Moench, 2015). One goal of aesthetic teaching is for children to discover and process the aestheticity of a taught subject, in other words, to function as aesthetic beings and deal with what is being taught as an aesthetic object.

Going back to the activity used as an example, it can be seen that the design of the activity encouraged children to create, react to and critique works which had to do with the aesthetic characteristics of numbers. An indicative excerpt from the observations during the implementations of the activity notes that one child perceived the cardinality of number 1 as loneliness and characterized it as introverted and sad, and drew it on the edge of the drawing paper, but drew other numbers together as a group; the child then explained his meaning to the class, as well as his planning of the drawing, the techniques he used and the composition of qualities he adopted: "I put a hat on number 1 because it was cold, because it wasn't playing and when we don't play, we get cold", "I drew number 1 at the edge, and then all the other numbers". Other members of the group reacted positively to the idea and, after deciding collectively, transformed the drawing into a theatrical sketch. After the sketch, a few children explained what they were thinking (e.g. "our sketch isn't over – it needs more time, we can do it tomorrow"). Other children commented on their ideas and their process of creating, and they evaluated themselves (e.g. "it is one of my best drawings, because I drew a whole story", "when I'm happy, I come out with happy drawings").

It seems that aesthetic teaching must provide children with opportunities to create aesthetic works on the subject they are being taught, and/or react to aesthetic stimuli based on the subject, and/or judge these aesthetic stimuli. Through aesthetic teaching activities, children should be encouraged to process a subject in terms of its representations, its expressive meanings, the characteristics of its form and its contextual functionality. Aesthetic teaching activities can constitute a framework for children's meta-cognitive reflections on the aesthetic process of their works and the works of their classmates.

Aesthetic Teaching as a Motivational Approach of the Subject Taught

Aesthetic teaching seems to be positively related to the learning incentives of pupils (Anderson, 2016; Cho & Vitale, 2014; Csikszentmihalyi, 1991, 2014; Garces-Bacsal et al., 2011; Hetland et al., 2013; Nakamura & Csikszentmihalyi,

2002; Shernoff & Csikszentmihalyi, 2009; Suttie, 2012; Vygotsky, 1933). A goal that could be achieved by implementing aesthetic teaching is to increase children's engagement in the learning process.

With regard to this goal, the aesthetic activity example was designed so that every child had the opportunity to organize the processes he/she would use: having the freedom to choose and express his/her own meanings through an attractive and rather playful environment. During the implementations, there were observations that children were experiencing a playful situation (e.g. they asked the researcher when she would visit them again to "play these games") and they were deeply focused on their work during teaching (e.g. they were frequently surprised when the lesson was over and some children suggested that they be given more time for the activities). There were also indications that more children participated in the class, and indeed, children who had the tendency not to participate.

Aesthetic teaching activities should be designed to elicit curiosity, focus, surprise and spontaneity from both the pupils and the teacher. They should be self-directed processes to a great extent, and adaptable according to the developmental level, cultural background and aesthetic skills of every child, challenging his/her potential. They should be experienced more as play, rather than as duty, and should be situations in which the reward comes from participating. They should not be limited by a rigid adherence to a plan and by strict deadlines. Also, aesthetic teaching activities must be open to many results, while the children who take part in them should be assessed more on the qualitative characteristics of their participation and their own self-evaluations, than by the educators' aesthetic and academic criteria.

Conclusion: Criteria for Designing Aesthetic Teaching Activities

In this chapter, aesthetic teaching is explored on a methodological level, following the course from its conceptual framework to actual class work.

It seems that aesthetic teaching can be defined as a situation that encourages both educators and children to approach the taught subject in a multisensory-productive, connotative-creative, multilogical-multifaceted, aesthetic and motivational way. Based on this, light is shed on specific criteria for the design of aesthetic teaching activities, so that:

- they address all children;
- they can be implemented by generalist teachers;
- they encourage using a variety of channels of expression other than language;
- they have instructions that have more to do with the aesthetic process than with the aesthetic results;
- they have to do with interpretation and a creative handling of the taught subject;
- they allow a multilogical processing of the taught subject;

- they influence the personality of the children holistically;
- they create opportunities for children to have aesthetic experiences with regard to the taught subject;
- they encourage meta-cognitive processes with regard to the taught subject;
- they create playful, challenging, interesting and satisfying experiences with regard to the taught subject.

The activities designed with these criteria showcase the arts as necessary and irreplaceable elements of teaching, as they lead children to a manner—an aesthetic manner—of processing the taught material, which only the arts can do. They can encourage children to discover and process a side of the taught subjects, which without the arts would have been ignored or would never have arisen. Utilizing the arts as an aesthetic way of approaching the subject being taught may provide opportunities to acquire artistic skills and/or improve children's academic achievement but is not limited to this: it may, more generally, have a positive impact on the way children operate while learning. More specifically, a first possible implication of systematically using aesthetic teaching is that children are enabled to learn by approaching the taught subject with different senses. This would be a blow to verbalism and would contribute to the fullness and comprehensiveness of learning and the development of innovative thinking about the subjects being taught. Also, children participating regularly in aesthetic teaching activities could develop a habit of connotative, interpretative and creative processing of the taught material. This would counter the behaviourism permeating education. It also seems possible that systematically implementing aesthetic teaching has a positive impact on cultivating multiple ways of thinking about what children are learning. This could challenge an educational approach overly focused on narrowly defined intellectual capacities, by encouraging children to be influenced by the taught material on many levels, not only intellectual, but also bodily, social and emotional. Furthermore, this could be a defence against the marginalization of pupils who do not have a verbal or logical learning style, and possibly increase the number of children who take part in the learning process. It also seems possible that children who participate systematically in aesthetic teaching activities cultivate their sensibilities with regard to aesthetic stimuli, their ability to analyse aesthetic works, their skills in different artistic languages, as well as their meta-cognitive thinking. Aesthetic teaching could also lead children to a more energetic, motivated and joyful relationship to learning.

It is important to examine experimentally the learning habits likely to be developed by children who are systematically engaged in aesthetic teaching. Knowing the specific skills and benefits that emerge from aesthetic teaching is fundamental, given that "if skills do transfer, they may only do so when teachers explicitly teach for transfer" (Winner et al., 2013, p. 138). It is also important to shed light on the breadth and duration of the transfer of skills that occurs during aesthetic teaching. It is necessary to collect quantitative and qualitative data and compare classes that do and do not use aesthetic teaching. On these issues, many case studies (e.g. one class) would be helpful, given that aesthetic teaching can be

used in different ways by different students and be implemented in different ways by different educators. Such future research would be a significant endeavour because aesthetic teaching seems to be a situation akin to what children would dream of as an educational environment, and what educators envision as an environment in which to practise their vocation.

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Part IV
Preparing Future-Ready Teachers and Students Through the Arts /in/ Education: Artistic Processes

Chapter 9
Nurturing Future-Ready Learners Through the Arts: A Case Study of an Exemplary Primary School Band

Leonard Tan and Pamela Costes-Onishi

Abstract In this qualitative case study, we examined how the arts serve as a powerful tool to nurture future-ready learners. In particular, we employed ethnographic research techniques to document how an exemplary primary school band in Singapore could be a conduit to develop twenty-first-century competencies (21CC)—skills and dispositions needed for a rapidly changing world. Data included observations of band activities, field notes, material artefacts, and interviews. They were collated, transcribed, and analysed using Shuler's (Music Educators Journal 97:9–13, 2011) framework, which posits that the "Three Artistic Processes" (i.e. performing, responding, and creating) enable students to develop the "Four Cs" (i.e. creativity, critical thinking, communication, and collaboration). Students expressed how they enjoyed performing with their bands through descriptions that suggested that they were in flow (Csikszentmihalyi in Flow: The psychology of optimal experience. Harper & Row, New York, 1990). Accordingly, efforts to mine the power of the arts to nurture future-ready learners should stay close to the true nature of band as a *performing arts ensemble*: to perform—and as a corollary—to share the joy of music with the wider community.

Introduction

According to the *21st Century Skills Map: The Arts* (Dean et al., 2010), "the arts are among society's most compelling and effective paths for developing 21st Century Skills in…students" (p. 2). Developing twenty-first-century skills means getting the students ready for the challenges of the new knowledge society (Anderson, 2008) that demands creative, flexible, and critical thinkers. The education system is now tasked to reform its curricula and to revisit what is considered "core" to learning. As Voogt and Roblin (2012) stated, "[t]he dynamic changes in the types of jobs demanded by the knowledge society pose important challenges to educational systems, as they are

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currently asked to prepare young people for a job that does not yet exist" (p. 300). In Singapore, which is the context of this study, the Ministry of Education (MOE) has introduced its version of the twenty-first-century competencies (https://www.moe. gov.sg/education/education-system/21st-century-competencies) as well as the desired outcomes of education (https://www.moe.gov.sg/education/education-system/desired-outcomes-of-education).

Interestingly, the core competencies needed for the rapidly changing world condition, which is brought about by globalization and technological advancements, are something native to the arts as exemplified in the inherent processes of creating, performing and responding (Dean et al., 2010, p. 2; Shuler, 2011). It was reported that there are implicit artistic "habits of mind" (Hetland, Winner, Veenema, & Sheridan, 2013) that are cultivated while engaging in the artistic processes.

This study sought to make explicit those implicit dispositions that are nurtured in the artistic processes of learning in a school band. In particular, ethnographic research techniques were used to document how an exemplary primary school band in Singapore developed twenty-first-century competencies (21CC) as articulated by the Singapore MOE (Ministry of Education, 2014). The key research questions were: (1) How did participating in the school band enable the development of 21CC through the arts? (2) What were the 21CCs that could be developed through participating in the school band? (3) What are some specific strategies that music or arts educators can employ to nurture future-ready learners? Through this study, we hope (1) to create a greater awareness of the 21CC that may already be developed through school bands; (2) to improve on existing practices; and (3) to provide tangible examples of the development of 21CC through band for policy makers, band directors, teachers-in-charge, and other school bands.

Statement of Problem

The few relevant literatures on band, music education, and 21CC present opposing views. On the one hand, there are the advocates that note the potential of music to nurture twenty-first-century skills when the delivery focuses on the artistic processes (e.g. Shuler, 2011); on the other hand, there are those that argue against using the arts as a means to an economic end through its claims of nurturing twenty-first-century skills (e.g. Logsdon, 2013). In looking closely at the arguments, we can see that the problem is really not whether the arts can indeed nurture twenty-first-century skills or not, but on the pedagogy implemented in developing curriculum that integrates the arts and twenty-first-century skills. Another problem is the focus on "skills", which lends a utilitarian view of the arts, instead of their inherent processes that nurtures artistic "habits of mind". What we find common among different perspectives is the concern that teaching in the arts has remain propositional that there has been a tendency "to adopt habits of the core sciences to maintain respectability" (Aróstegui, Stake, & Simons, 2004, p. 3). This translates

that even in and of itself without twenty-first-century skills integration, the peda-gogy in the arts is often focused on technical skills and tests, i.e. on the product rather than on the process.

The reality according to literature is that music education has failed to keep pace with the rapid cultural and social changes associated with the twenty-first century, which affects student engagement. For example, the conventional view would explain that the arts are not central to the curriculum because it lacks budget support due to its non-high stakes status; when in reality, the problem is that curriculum and pedagogy in the arts fail to move with the changing world (Kratus, 2007). This is ironic given that artistic processes are supposed to be experiential and innovative-driven. In the band setting, this problem persists when autocratic approach to instruction alienates "students from the creative process" setting up a "duality between how they have known music to be constructed and created…and how they experience the wind band programs in which they have no voice" (Allsup & Benedict, 2008, p. 170).

It is within the problem in pedagogy and implementation that this study seeks to address. We hope to highlight those implicit school band teacher and learner interactions that can unveil the implicit artistic processes that nurture habits of mind responsive to the rapidly changing realities of the world.

Theoretical Framework

Shuler (2011) proposed a framework that is useful and relevant to this study. This framework is in two parts: the "Three Artistic Processes" (i.e. performing, responding, and creating) and the "Four Cs" (i.e. creativity, critical thinking, communication, and collaboration). According to Shuler, school music programmes ought to centre on the "Three Artistic Processes" as such an approach would enable students to develop the "Four Cs" that are crucial for twenty-first-century learning:
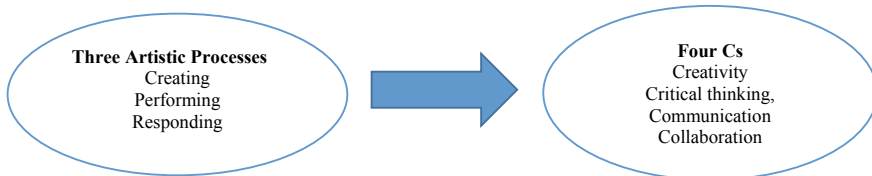
Shuler's framework is potentially relevant to large musical ensembles, such as the school band, as all "Three Artistic Processes" can possibly be observed in band programmes. "Performing" and "responding" are relatively easy to observe in school bands: students *perform* music in concerts and school functions and *respond* to the music that they learn to perform (Shuler, 2011). "Creating" may be less commonly associated with school bands, especially when narrowly taken to refer to composing music. However, the usefulness of composing in band programmes has

been well documented in the music education literature (e.g. Dammers, 2007; Priest, 1997, 2002). Composing in school bands has also received significant advocacy in the USA through the "Comprehensive Musicianship" movement: an integrated approach to music education that aims to enhance traditional performance programmes with composition, music history, music theory, and improvisation (e.g. Brame, 2011).

Of the various 21CCs noted in the research literature (e.g. Voogt & Roblin, 2012), the "Four Cs" (i.e. creativity, critical thinking, communication, and collaboration) are among the most well known. In the Partnership for Twenty-First Century Learning (P21) (http://www.p21.org/) framework, the "Four Cs" have been identified as "headline 21st-century skills" (Shuler, 2011, p. 12); they are also emphasized in the "outer ring" of the Singapore Ministry of Education's (2014) 21CC Framework as key "emerging 21CC". Given the potential relevance of Shuler's framework to the development of 21CC through large ensembles, it was used as the initial theoretical framework for this study. However, in keeping with the open-ended nature of qualitative research, additional unexpected themes were allowed to emerge from the data.

Methodology

Given the general lack of empirical research on the development of 21CC through the school band, it makes intuitive sense to purposefully select an exemplary band for this present study, that is, a band with an established track record of performance standard, general good reputation, and healthy enrolment. Fairy primary school band (FPSB; all names in this paper are pseudonyms) was selected to participate in this study. FPSB was an exemplary primary school brass band in Singapore that has won several awards at the Singapore Youth Festival; it also performs regularly and has a healthy enrolment. Upon obtaining ethics approval and permission from the school authorities to conduct the study, the invitation to participate was extended: a total of 82 primary school students (approximately ages 8–12) and 9 band teachers-in-charge/band instructors gave informed consent to participate in the study.

Field observations of the band were made over a period of approximately one year to capture band members' lived musical experiences using ethnographic research techniques. The data collection procedures included observations of band activities (e.g. full band rehearsals and sectionals), writing of extensive field notes, examination of material artefacts, and interviews (including focus group discussions). These varied sources of data were used for the purposes of triangulation (Berg, 2004) and also to generate thick and rich descriptions (Ryle, 1971) of how the school band may develop 21CC for future-ready learners. Data were collated and transcribed before applying Saldaña's (2012) recommendations to code and analyse the data. Throughout the analyses, the Singapore MOE's (2014) 21CC framework was used to guide the coding. While we used Shuler's (2011) "Three

Artistic Processes" framework as an initial point of departure, we also allowed other pedagogical processes and 21CC to emerge from the data so as to garner richer insights; this is true to the exploratory, qualitative, and emergent nature of this study.

Findings

An analysis of the data indicated that in addition to the "Three Artistic Processes", peers and patience also emerged as two additional enablers of 21CC. Importantly, students expressed that they enjoyed performing with their bands through descriptions that suggested that they were in *flow*: psychological states in which people are so immersed doing something deeply enjoyable that time seems to fly (Csikszentmihalyi, 1990).

In the qualitative narrative below, we first present findings based on Shuler's (2011) framework; this will be followed by the two additional themes that emerged from our analysis: peers and patience. As this study was conducted in Singapore, our understanding of the various 21CCs follows those that are defined by the Singapore Ministry of Education (https://www.moe.gov.sg/education/education-system/21st-century-competencies). This framework consists of (1) "core values" such as respect, responsibility, integrity, care, resilience, and harmony, (2) the "middle ring" such as self-awareness, self-management, social awareness, relationship management, and responsible decision-making (known collectively as "social and emotional competencies"), (3) the "outer ring" such as civic literacy, global awareness, cross-cultural skills, critical and inventive thinking, communication, collaboration, and information skills (known collectively as "emerging twenty-first-century competencies"), and (4) the "desired outcomes of education" (i.e. confident person, self-directed learner, concerned citizen and active contributor). For ease of reference, we have italicized the key 21CC dispositions and desired outcomes of education in the thick and rich description below.

The Three Artistic Processes: Performing, Responding, and Creating

Performing

"Performing", one of the Three Artistic Processes identified by Shuler (2011), emerged strongly from the data. FPSB regularly performed and had active performance schedules that included the Singapore Youth Festival Arts Presentation (a biennial nation-wide adjudication of school bands), formal and informal concerts, and performances at school events (e.g. school speech day). As Ms. Ada (band

teacher-in-charge) puts it, "major events like…speech day, we can never miss out the band performances". *Confidence* (desired outcome of education) was developed through performing in band. Carrine used to have stage fright; however, with more performances, "it's like a routine every morning to just go up on stage and then come down and then no more stage fright already". The need for confidence while performing was emphasized during band rehearsals by the band director, Mr. Colin ("You have to be confident of your first note"). Video clips of the bands' past performances show the band members appearing confident while performing; they even performed without music scores.

The bands' performances and achievements seem to have garnered them *respect*. On a large television screen where announcements and news were flashed, the achievements and activities of the Band (e.g. performances at the Istana and overseas tours to countries such as Australia and Japan) were prominently displayed. Students appeared proud of their bands. Rui Ting expressed feeling proud when "wearing the band t-shirt" while William felt proud when representing the school during the Singapore Youth Festival. However, being respected also meant that students had to uphold the performing standards of the band. *Perseverance* (an important disposition noted under *Resilience*–a core value in the MOE 21CC framework) was crucial. For William, perseverance was one important thing he learned from band. Ms. Joey (teacher-in-charge) answered "perseverance" when asked what are some of the values that should be taught to students through band. Similarly, Mr. Colin explicitly encouraged resilience during a rehearsal: "Try again. I know you are tired…but you got to be resilient".

Responding

"Responding" to music, another Artistic Process identified by Shuler (2011), also emerged from the data. When asked how he felt when playing music, Edward replied "A lot of emotions". The instructors seemed to play a rather active role in fostering affective responses to music. For example, when rehearsing a slow, lyrical piece, Mr. Colin asked the students to be "very gentle"—like when they *sayang* their "baby brother's cheeks" (i.e. to express love by gently touching the baby's cheeks). Responding to music also involves interpreting, meaning-making, and developing one's personal response to composers' expressive ideas (Shuler, 2010). During one rehearsal, Mr. Colin explained that the most important thing when one performs is to "tell a story". He then proceeded to ask students what moods they wanted to create in the piece they were rehearsing. In another rehearsal, Mr. Colin briefly spoke about the flamenco dance when rehearsing a piece of music with Spanish influences. In addition to promoting affective responses to the music, this strategy could also develop *global awareness* and *cross-cultural skills* (21CC). Indeed, the band's repertoire appeared rather multicultural: the band notice board listed music from American composers, a Spanish March, and also music from Japan, which helped students learn about how, as Ali expressed, "the music is like" in Japan.

Creating

While "performing" and "responding" appeared rather prominently in the data, "creating", when construed rather narrowly as composing new pieces of music, was notably absent in FPSB. However, Ms. Joey noted that one piece that the band learned created opportunities for students to improvise; students were free to think about what they wanted to do with the music. Additionally, while she noted that students in her band "very much play what they are told to play", she added that during her general music classes, band members used their band instruments "creatively to support the music lesson…they will use the instruments for example, to create…some sound effects…" Participating in band, therefore, provided students with the tools (through their instruments) to be *creative* (21CC) outside the band context, such as the general music class. Creativity could also come from the instructors in the form of creative approaches to teaching musical and instrumental skills required for performances. Participants noted how Mr. Colin was creative with his teaching and agreed that they could learn creative teaching approaches from him. During one rehearsal, Mr. Colin improvised on the keyboard as he accompanied students' buzzing exercises. When interviewed, Mr. Colin shared ideas like using visual aids for dynamic differentiation (e.g. red for loud and yellow for soft) and analogies such as blowing feathers for slow airspeed and rocket for fast airspeed. Mr. Ngiam (Mr. Colin's assistant) similarly used analogies; he likened dots in musical notation to "pimples".

Emergent Enablers

Peers

As a co-curricular activity (CCA) that cuts across levels, FPSB provided invaluable opportunities for students to interact with and learn from peers from other age groups; it also allowed students to "form friendship over music" (Carrine). We observed that peer teaching was an important aspect of FPSB: pockets of students were often seen clustering in small groups where peers teach one another. More often than not, older seniors would be coaching their younger juniors. When examining the role of peers in the students' lived experiences, some core values from the inner ring emerged. Rui Ting felt that seniors in her band *care* for their juniors; this care was demonstrated when seniors taught them and also when "my hand is bleeding and they bring me to go general office". Rui Ting added that her seniors "play very well", and William noted that they are good "role [models]". Senior–junior relationships, however, were not always a bed of roses. For example, Carrine had to deal with some difficult juniors ("…sometimes they don't listen to me"); in so doing, she was afforded the opportunities to develop *social and emotional competencies* found in the middle ring, such as *relationship management*.

In addition to the inner and middle rings, 21CCs from the outer ring also emerged as a result of "peers" in band, most notably *collaboration*. In band, peers collaborate to make music together, as observed in numerous full band and sectional rehearsals. As Carrine noted, "Play by yourself, it sounds like weird…then you gather whole band you got the whole melody". Observations of sectionals versus full band rehearsals triangulated Carrine's point: as students worked on their individual parts during sectionals, the music often did not seem to make sense; during full band rehearsals, what seemed "weird" (Carrine) became more coherent and complete. Collaboration is crucial in a group-based musical activity like the school band. According to Mrs. Felicia (teacher-in-charge), "team effort is definitely seen and they usually don't want to let their peers down", further noting that "they sort of feed off each other".

Importantly, there was a rich array of pedagogical processes to foster musical collaboration among peers. In rehearsals, we saw how Mr. Colin emphasized the importance of teamwork (e.g. "You're working as a team") and used games to promote listening to one another. During an interview, Mr. Colin noted the importance of students tonguing the same way and playing the same note lengths as their peers. One pedagogical approach he shared was using ruler measurements as an analogy to make the concept of note length more concrete for students. This triangulated with observations of his rehearsal where he noted that just as "1 cm means 1 cm" and "1.5 cm means 1.5 cm", each note must be of precise duration. In another rehearsal, Mr. Colin likened teamwork in band to teamwork in a soccer team and emphasized how "A band is only as strong as its weakest player". He also noted that "Even though you tried your best to play long, but [if] one person play[s] short, everybody is affected". The idea of players affecting others was seen also at another rehearsal. When some students did not play a chord long enough, Mr. Colin explained that it would make another member feel uncomfortable and likened such a feeling to "sleeping on the mattress…without bedsheet cover". In so doing, he encouraged students to develop a sense of interdependence crucial for our present globalized world in a musical manner. In short, it appears that the need to play together with peers as a musical ensemble necessitated the need for pedagogy aimed at fostering listening skills[1] and being aware of how one's sound contributes to the whole, which in turn may help towards nurturing the larger 21CC goal of *collaboration*.

In addition to collaboration, *critical and inventive thinking* were also important 21CCs that could be developed through peers. For example, with respect to *critical thinking*, Mr. Colin tasked his students to critically assess the playing of their peers. For Mr. Colin, such an approach offers "a chance for them to learn also". In North America, scholars have characterized band as an oppressive activity that offers little or no opportunities for students to engage in critical thinking and make their own musical decisions (e.g. Allsup & Benedict, 2008; Kratus, 2007). After all, it appears that the conductor is the one making musical decisions all the time (see Tan, 2014).

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[1]On the meaning of music listening, see Gabrielsson (2011).

The strategy used by Mr. Colin to have his students adjudicate their peers critically may be helpful to develop musically independent players. Additionally, peer-directed sectionals offered opportunities to develop critical thinking and problem-solving skills, such as coming up with new creative ways to teach their juniors. Carrine offered some concrete strategies,

> Like maybe if my friends they don't know how to do the tempo, I will ask them to start like tapping their feet when they start playing. Then I will maybe like sing the tune to them when they are also playing so they know how to play.

Patience

While peer teaching offered opportunities to develop invaluable 21CCs, it also necessitated a disposition that emerged rather unexpectedly from the data: patience. Qiu Heng noted that seniors in the band were "very patient", while Ziyan liked her senior, Wendy, because of her patience ("whenever we get wrong, she will always teach us, teach us, teach us again"). Indeed, we observed how in small groups, several seniors taught their juniors patiently; in return, juniors appeared patient in responding to their seniors' teaching, and patiently practised repeatedly. Ali expressed that he liked Mr. Colin as he is "very patient". During Mr. Colin's rehearsals, he patiently asked students to "try again" whenever they made mistakes. He would listen not just as an entire band, but also section by section and sometimes even one by one, very often taking time to patiently guide the students.

As a result of the need for patience in band, students were afforded authentic opportunities to develop key *social–emotional competencies* found in the middle ring of the MOE framework, such as *relationship management*. For example, William noted that whenever he gets frustrated with his juniors, he would tell himself, "Look, don't scold them. Don't scold them. Just teach them properly"; he would also take a deep breath to stay patient. Notwithstanding the inevitability of having to wait during band rehearsals, Mr. Colin noted that time management is crucial so as to avoid having students wait for excessive periods of time.

Patience bears fruits. As Jiarong noted,

> What I like about band is the feeling of accomplishment when we complete a song that we have been training for months…once we actually perform…it feels good because we train so hard then eventually it all pays off.

Participants felt that the opportunities to perform made their efforts and hard work worth it. Importantly, when recollecting their performing experiences, participants' responses appeared to resonate with what Csikszentmihalyi (1990) coins "flow": a psychological state in which people are so immersed doing something deeply enjoyable that time seems to fly. For Carrine, time passed by quickly during performances, and "we want more". Jiarong noted that during performances, he

"felt very excited" and that time passed very fast on stage "because we were quite immersed in the performing". Through performances, the joy of music was shared to the wider community. For Qiu Heng, "The audience, like…very like happy and, enjoy our music". Similarly, Ali liked to see people "face smiling".

Discussion

The purpose of this study was to examine how the arts serve as a powerful tool to nurture future-ready learners, focusing in particular, on the use of ethnographic research techniques to document how an exemplary primary school band in Singapore developed 21CC. Findings indicated that in addition to the "Three Artistic Processes", peers and patience also emerged as two additional enablers of 21CC. Importantly, patience bore fruits in terms of performing opportunities for the students, with descriptions that suggested that students were in *flow* (Csikszentmihalyi, 1990) while performing.

Given the summary of findings briefly reprised above, it appears that one unique aspect of band as a means for developing 21CC lies in its very nature as a *performing arts ensemble*. As the term implies, a performing arts ensemble *performs* (which relates to Shuler's Artistic Process: performing); participants do not perform individually, but as an *ensemble* (which relates to "peers" which emerged from the data). In order to reap the rewards of a collective ensemble performance, patience is needed. Accordingly, we recommend that efforts to mine the power of the arts to nurture future-ready learners should stay close to the true nature of band as a performing arts ensemble: to perform—and as a corollary—to share the joy of music with the wider community. In other words, by staying true to the original *raison d'être* of the band like a limpet on its rock, that is, to work collectively towards shared musical goals in the form of performances for others, the twenty-first-century gains (e.g. confidence and collaboration) are likely to follow rather naturally. As noted by the Singapore MOE in its official website on 21CC (https://www.moe.gov.sg/education/education-system/21st-century-competencies), "The workplace of the twenty-first-century requires our young to be able to work together in a respectful manner to share responsibilities and make decisions with one another to meet group goals". This appears to align with our observations of what the school band can offer: students work together towards shared musical goals, at the same time, developing core values and 21CC that are ever relevant and timely.

Recommending performance as a practical strategy to developing 21CC is true to the nature of band as a performing arts CCA. As noted in the qualitative narrative, students enjoyed performances. Performances need not necessarily be time-consuming events; rather, they may be informal performances in school or even in the band room where peers perform for one another. While recommending performance may appear to state the obvious, we probably have friends who learn musical instruments, but do not ever perform other than in formal graded

examinations where the one single member of the "audience" (i.e. the examiner) does not applaud; music then becomes yet another medium to be graded rather than enjoyed. Band can provide unique performance opportunities, no matter how simple, that are not found elsewhere. The fact that students perform with their friends can make these shared experiences of music all the more joyful.

As noted in the qualitative narrative, it is common to associate creativity with creating a new piece of music (i.e. composing). A person who is composing *has* to create something. By contrast, the need for and the opportunities to be creative is perhaps less immediately apparent to band members; it is easy to think that it is all about following the conductor and learning the notes. As noted earlier, critics in North America have asserted that band can be an unthinking and authoritarian activity (e.g. Kratus, 2007; Allsup & Benedict, 2008). An intentional effort, therefore, needs to be made to *think critically* about one's band program (e.g. "am I training robots who only know how to obey the conductor, or am I nurturing independent, creative young musicians?"). Although one does not create a new piece of music in band, it is entirely possible to *think creatively* and be creative in the *approach* to band. The practical strategies that emerged from this study included engaging students in creative musical activities that make use of their band instruments outside of the band context, such as the general music classroom, performing music that provides opportunities for students to engage in improvisation (although improvisation was relatively limited compared to performing from notated music), and tasking students to critically assess their peers.

Conclusion

To answer the key research questions explicitly: (1) *How did participating in the school band enable the development of 21CC through the arts?* Through the enablers identified in this study, namely, the Three Artistic Processes, peers, and patience. Simply put, *how* is 21CC developed through band? Through these enablers, which are already implicit in band; this study renders them explicit. (2) *What were the 21CCs that could be developed through participating in the school band*? As noted throughout the qualitative narrative, the suite of 21CC included a range of dispositions found in the MOE framework, including core values such as responsibility, care, and resilience, the middle ring social and emotional competencies, the outer ring 21CCs, and the desired outcomes of education such as confidence. (3) *What are some specific strategies that music or arts educators can employ to nurture future-ready learners?* As noted in the discussion, through staying close to the true nature of band as a performing arts ensemble: to perform. Additionally, educators may be creative in the *approach* to band through practical strategies such as engaging students in creative musical activities that make use of their band instruments outside of the band context, performing music that provides opportunities for students to engage in improvisation, and tasking students to critically assess their peers. Through this study, we hope to create a

greater awareness of the 21CC that may already be developed through school bands. Indeed, our findings support MOE's (2014) efforts to develop 21CC through CCA music ensembles. Given that data were collected from an exemplary band, the specific strategies to develop 21CC through offering performance opportunities and creative approaches to band may help other ensembles improve on existing practices, and provide tangible examples of the development of 21CC through band for policy makers, band directors, teachers-in-charge, and other school bands.

In this study, data were collected only from one exemplary primary school band in Singapore; this is a limitation of the study and larger claims of generalizability to all CCAs cannot be made. Studies in future may research on other performing arts CCAs, such as string orchestras, choirs, and guitar ensembles, and also ensembles of other performing standards. Importantly, the enablers that emerged in this study may not be unique to just the band experience. Future studies may ascertain if they may similarly be found in other musical or performing arts CCAs. There could also be other enablers/processes that could be uncovered in future research.

Notwithstanding the limitations noted, we hope that this study has provided a snapshot of how band may play a role in nurturing future-ready learners. Importantly, the development of 21CC through the performing arts is not done in a dry, sterile manner, but one that is living, authentic, and musical. To recapitulate the students' thoughts on their band performances, "we want more" (Carrine), "very excited" (Jiarong), and "The audience, like…very like happy and, enjoy our music" (Qiu Heng). Which school activity develops 21CC in a manner that leaves students wanting for more, gets them excited, and brings joy to the community? The school band.

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Chapter 10
Nurturing Personal and Collaborative Creativity Through Group Playing by Ear from Recordings in Formal Music Education

Maria Varvarigou

Abstract This chapter discusses research on informal learning (Green in How popular musicians learn. Ashgate Publishers, Aldershot, 2002) with a particular focus on playing by ear from recordings in groups and how it contributes to the development of music learners' personal and collaborative creativity. Sawyer's work (Group genius—The creative power of collaboration. Basic Books, New York, 2007) on collaborative creativity was used as a lens through which to examine and discuss four music programmes in the secondary school classroom and one in Higher Education that have adopted the approach. These programmes illustrate how group playing by ear from recordings in formal music education can nurture personal and collaborative creativity, enabling lifelong creative artists and advocating for arts centrality in educational policies globally. The chapter concludes with recommendations on the role of the music educator and the contribution of technology in facilitating music learners' development of personal and collaborative creativity through group playing by ear from recordings.

Introduction

Creativity, along with confidence building, self-directed and collaborative learning has been recognised as a core skill of the twenty-first-century global learner, and a salient human attribute that allows individuals and groups to engage in risk-taking and problem-solving (Ho & Chua, 2013; Jeanneret, McLennan, & Stevens-Ballenger, 2011; Trilling & Fadel, 2009). These processes raise aspiration, improve achievements and skills, unlock the imagination and bring about lasting improvements in the quality of the learners' lives (CCE, 2010). There is also a consensus amongst researchers who study creativity (Burnard, 2012; Csilszentmihalyi, 1996; Haddon & Burnard, 2016; Odena, 2012) that it is vital in

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all societies, it arises in all people and therefore, it is important to nurture and promote in formal, non-formal and informal learning settings across the lifespan. Gibson (2010, p. 608) argues that creativity 'involves the ability to create meaningful, new forms' by combining and synthesising already existing ideas and skills and therefore it is inherent to varying degrees in everyone. This chapter embraces this definition of creativity as its emphasis on synthesising existing ideas and skills reflects the work that musicians engage in when they copy music by ear from recordings in groups.

Internationally, arts education is supporting a variety of activities that unlock children and young people's creativity. Arts curricula, including music, are the nurturers and promoters of creativity in a school environment par excellence, often highlighting the transferable skills (increased convergent and divergent thinking, collaborative skills, self-management skills, problem-solving) acquired through regular engagement with creative tasks such as listening, arranging, improvising, composing or performing music alone and with others. Although creativity is not confined to arts subjects, it is these subjects that are regarded as more creative than others perhaps due to 'a greater amount of agency over the product' (Edwards, Whittle, & Wright, 2016, p. 24). Nurturing personal and group creativity in arts education means that we encourage learners' risk-taking, independence and flexibility (Cropley, 2001; Gibson, 2010); their sense of competence, autonomy and relatedness (i.e. their ability to connect with others and their community) (Creech, Hallam, Varvarigou, & McQueen, 2014; Deci & Ryan, 2000) and their curiosity and enjoyment (Green, 2008).

Creativity has often been viewed as a mystical human trait with musical creativity, in particular, being an elusive and contested term. Burnard (2012, p. 321) and Merker (2006) acknowledge that creativity in music is 'changing, complex and multifaceted' and that the breadth and depth of musical practices create the conditions for multiple understandings and ways of experiencing creativity. Likewise, Gibbs (2011) stresses that invention, one of the two dimensions of creativity in musical improvisation (the other being 'originality'), can be taught and assessed.

Collaborative creativity through peer learning is a salient skill for the twenty-first-century artists (Guillaumier, 2016); especially young musicians who engage in group music making as part of their compulsory education, a portfolio career in music or as a recreational activity. This chapter discusses research on informal learning (Green, 2002) with a particular focus on playing by ear from recordings in groups and how it contributes to the development of music learners' personal and collaborative creativity. Four music programmes in the secondary school classroom and one in Higher Education that have adopted playing by ear from recordings in groups illustrate how Lucy Green's work on informal learning approaches in formal music education can nurture personal and collaborative creativity, enabling lifelong creative artists and advocating for arts centrality in educational policies globally.

Collaborative Creativity and Informal Learning—Synthesising Two Approaches

Sawyers' work (2007) on collaborative creativity provides the theoretical lens for this chapter. Sawyer (2007) underscored that collaboration is the key to breakthrough creativity, and he argued (Sawyer, 2007, p. 7) that 'group genius generates breakthrough innovation'. He identified guided and planned improvisation by jazz and theatrical ensembles as the 'purest form of group genius' because the creative performances 'emerge from everyone's equal collaboration' (op. cit., p. 9). Furthermore, Sawyer (2007, pp. 14–17) identified seven attributes of effective collaborative teams: First, innovative ideas emerge over time. Second, they emerge through the process of deep *listening* followed by all the team members. Third, the team members build on their collaborators' ideas. Fourth, only after several elaborations, the meaning of each idea becomes clear. Fifth, this leads to the idea in focus being developed generating new questions. Sixth, after several rejected ideas, innovation finally emerges; and from the bottom up (the team members)—not from the top down (a manager, teacher, leader) (Seventh).

Within the music education context, Green (2002) found that in the informal realm of music making, popular musicians develop skills and knowledge by working on the music they like; copying and embellishing it by ear using audio recordings. Furthermore, learning takes place alone and in friendship groups, working largely or entirely independent of a teacher or other expert. Popular musicians play the whole, 'real-world' pieces of music rather than simplified pieces and integrate listening, playing, singing, improvising and composing throughout the process. Learning in these ways, popular musicians experience high levels of enjoyment and motivation and can develop advanced musicianship emphasising aural, improvisatory and creative aspects. A key component of the proposed pedagogy is that learners initially engage in playing by ear from recordings. This is how popular and vernacular (jazz, folk, traditional) musicians learn new repertoire and how they create new material either as improvisations or as compositions (Berliner, 1994; Green, 2002; Nettl & Russell, 1998).

Table 10.1 illustrates how the seven characteristics of creative teams articulated by Sawyer (2007) align with the process of playing by ear from recordings in groups as illustrated in Lucy Green's work on informal learning approaches in formal music education (2008). Firstly, like in creative teams, music learners engage in playing by ear from recordings in groups. Over several weeks of this engagement, their creative musical ideas pass through different stages that allow their ideas to develop over time. These creative musical ideas emerge through *purposive listening* to the recordings as well as through listening to each other's musical input and to fellow learners' opinions on how to develop the performances of the pieces copied. In collaborative teams, the team members build on their collaborators' ideas. In the same vein, in music groups, the musical ideas develop through the process of imitation, invention and improvisation by building on the group members' ideas. Progression is evident after a 'cycle of success,

deterioration, then improvement' (Green, 2008, p. 52). Each group's creative renditions of the pieces copied emerge after several weeks of trial and error and through the constant process of imitation, invention and improvisation. Creative teams follow a similar process by using a creative idea as a source for generating questions and rejecting ideas. The creative musical renditions are the result of collaborative team decisions, with the teacher acting as a guide and mentor used by the team as a resource rather than as an instructor. This is the equivalent of innovation being generated from the bottom up and not from the top down. Playing by ear from recordings in groups is therefore proposed here as an ideal activity for music programmes that aspire to nurture music learners' personal and collaborative creativity, two prominent twenty-first-century attributes of global learners (Trilling & Fadel, 2009).

Playing by Ear from Recordings in Groups in Formal Music Education

By 'playing by ear', this study refers to the process of playing music 'without the aid of notation, without the visual stimulus of watching a live instrumental model, without verbal hints such as solfege' (Musco, 2010, p. 49) and in particular through playing back from recordings (Green, 2012; Varvarigou, 2014; Varvarigou & Green, 2015). In the programmes discussed below, playing by ear took place within groups of peers, through playing back from recordings. Therefore, it did not exclude the imitation of a model—seen and heard, as in the case of imitating peers' practice, technique or interpretation of the music copied. Although Green's work could be applied to learners across the lifespan, the programmes presented here include young music learners in secondary school education and learners within Higher Education who aspire to a professional career in music.

The term 'informal' primarily indicates nonlinear, cooperative learning, which is controlled by a social group rather than by an individual. There is ample evidence within music education literature that playing in groups enhances listening and technical skills, motivates learners to practise with direct links to increased achievement and fosters an increased sense of belonging, autonomy, competence and relatedness (Creech, Hallam, Varvarigou, McQueen, & Gaunt, 2013; Hallam & Kokotsaki, 2007). The significant role that the group plays in informal learning contexts contrasts with formal learning, where a teacher leads musical activities prescribed by a curriculum within an organised and structured context (Gullberg & Brandstrom, 2004). Nevertheless, Green's informal learning pedagogy is not unstructured or unsystematic. On the contrary, it is 'guided and planned' (Sawyer, 2007, p. xii) and it allows individual learners, music groups (and tutors) to engage in collaborative experimentation that supports the development of personal and collaborative creativity in music. The pedagogy provides a blueprint, which is not prescriptive, and the musical repertoire used covers a range of musical genres as

Table 10.1 Relationship between the processes for effective collaborative creativity (Sawyer, 2007) and the processes of playing by ear from recordings in groups (Green, 2002, 2008)

Processes for effective collaborative creativity	Processes of playing music by ear in groups
1. Innovative ideas emerge over time	1. Playing by ear in groups takes place over several weeks and in different stages, which allowed music learners' creative ideas to develop over time
2. *Deep* listening followed by all team members	2. *Purposive listening* to the recordings and to fellow learners' musical contributions and expressed opinions are followed by all team members
3. The team members build on their collaborators' ideas	3. The musical ideas develop through the process of imitation, invention and improvisation at personal and group level
4. After several elaborations, the meaning of each idea becomes clear	4. Progression is evident after a 'cycle of success, deterioration, then improvement'
5. As an idea is developed, it generates new questions	5. Each group's creative performance emerges after several weeks of trial and error and through the constant process of imitation, invention and improvisation
6. After several rejected ideas, innovation finally emerges	
7. Innovation emerges from the bottom up and not from the top down	6. The creative rendition of the pieces performed is a result of collaborative team decisions with minimal or no input from a teacher/expert

well as invites the learners' input to choosing musical repertoire. These two salient features of the pedagogy rendered it popular internationally, influencing formal music education pedagogy across the UK, Canada and Australia[1]; Singapore,[2] Brazil[3] and recently Ireland.[4]

Nurturing Personal and Collaborative Creativity Through Informal Learning in the Secondary School

Musical Futures is a programme that started in 2003 with the aim of engaging secondary school learners aged 11–18 'in musical learning that is relevant to their everyday lives and that helps them connect in-school and out-of-school interests

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[1]Musical Futures organisation:
   http://www.musicalfutures.org (UK).
   http://musicalfuturescanada.org (Canada).
   http://www.musicalfuturesaustralia.org (Australia).

[2]An adaptation of the classroom project in Singapore:
   http://www.star.moe.edu.sg/resources/star-post-music-archive.

[3]https://www.musicalfutures.org/musical-futures-international/informal-learning-brazil (Brazil).

[4]http://www.musicalfutures.org/musical-futures-international/musical-futures-ireland (Ireland).

and experiences' (O'Neil & Bespflug, 2012, p. 25). Two key pedagogical approaches—informal learning (Green, 2002, 2008) and non-formal teaching are core components of the programme (Coombs, 1976; D'Amore, 2009; Hallam, Creech, & McQueen, 2011; Ho & Chua, 2013; Mok, 2011). As mentioned earlier, informal learning refers to nonlinear, cooperative learning where the learners control the learning process (Green, 2008). Ho and Chua (2013) and Rodriguez (2009) pointed out that informal learning does not mean unstructured learning. On the contrary, during informal learning, especially as scaffolded by Musical Futures, the learners collaboratively engage in a process of learning that takes them over different stages, and that often 'happens to be material-, context- and learner-specific' (Rodriguez, 2009, p. 38). The teacher gives more autonomy to the learner and 'enters into a more flexible and dynamic relationship' (op. cit., p. 38) with them.

Coombs (1976, p. 282) emphasises that non-formal education encompasses 'greater flexibility, versatility and adaptability than formal education' for meeting diverse learning needs of individuals and groups, 'and for changing as the needs change'. Within music education contexts, non-formal teaching often revolves around classroom workshopping, where the teacher responds to individuals' or groups' diverse needs through teaching strategies such as modelling and coaching; for instance, by questioning, providing help with finding pitches and making suggestions of holding instruments, posture and technique (Green, 2008). What is more, Mok (2011) and Hallam et al. (2011) underscore that one of the core characteristics of non-formal music teaching is autonomy in the students' decision-making about the direction of the musical projects. For instance, at the heart of the informal learning strand of the Musical Futures programme is a 5- to 6-week module called 'Into the Deep End', in which students collaborate in friendship groups, decide upon their own music and instruments, engage in playing by ear from audio recordings and create new renditions of the music copied (Ho, 2013). This flexibility in music making allows the learners to 'focus much of their attention on testing and evaluating ways to communicate musical ideas' (Rodriguez, 2009, p. 44), which are exactly the processes recognised as supporting collaborative creativity (Sawyer, 2007) during copying recordings, improvising, composing and performing on an instrument.

Both informal learning and non-formal teaching can be facilitated through playing by ear from recordings in small groups. During playing by ear, the emphasis is placed on 'the creative spirit rather than technical achievement', which nevertheless often motivates the learners to aspire to a higher level of technical attainment with confidence (Leong, Burnard, Jeanneret, Leung, & Waugh, 2012, p. 401). Findings from Green's work (2008), the Musical Futures programmes in the different countries around the world and programmes inspired by Green's informal learning approach in formal music education (Ho & Chua, 2013) acknowledged that listening to and copying recordings by ear within a classroom context is an effective way of developing high school students' listening skills—especially their ability to listen to the different layers of a musical piece. Furthermore, critical musicality (Costes-Onishi, 2016) and ensemble skills,

particularly the students' sense of relatedness and collaboration (Ho, 2013; O'Neil & Bespflug, 2012) are also developed. Finally, informal learning and non-formal teaching promote collaborative creativity through students' understanding and appreciation of how music is put together, how their parts could match each other's (Hallam et al., 2011) and through creative problem-solving that often occurred as a response to the students' technical limitations with the musical instruments they played (Ho, 2013).

The following sections discuss four music programmes within the context of secondary school all of which have been influenced by Green's (2002) seminal study on the ways that popular musicians learn. The first study is Green's (2008) application of informal learning strategies in 21 secondary schools in the UK. The second is Hallam et al. (2011) case study investigation of the Musical Futures programme in seven secondary schools in the UK. The third is Ho's study (2013) on informal learning with guitars with learners from two music classrooms in the same school in Singapore. Lastly, Chua's (2013) study is also located in Singapore, and it examines how formal, non-formal and informal learning approaches can be integrated into a STOMP-inspired general music lesson module. These studies exemplify how informal learning and non-formal teaching within the secondary school context foster personal and collaborative creativity.

Personal Creativity Through Informal Learning

Learners and tutors of the four music programmes talked about opportunities for personal creativity through playful experimentation with the instruments, the freedom to create 'new' renditions of the pieces copied and, at stages 4 and 5 of Green's project (2008), music that they composed themselves. Throughout the stages of the programmes involving aurally copied music, the learners altered the music by omitting or inserting a few notes, changing the rhythm or duration of the notes, playing on different keys to the original (imitation); adding new phrases, such as introductory and concluding sections (invention) and by developing these alternations as improvisations or arrangements. This process happened both spontaneously and by design. Some responses from music learners participating in the four informal learning programmes appear in Table 10.2. Several teachers reported that as a result of the learners' experimentation with musical material in small groups, their compositions (stage 4) and songs (stage 5) were more '*musically interesting and sophisticated than usual*' (Green, 2008, p. 112); and that '*the actual performance, the small group working, pushes them on farther, some kids have made tremendous progress in a year, playing drum kit in a concert, playing guitars or singing, it captures their interest and they go away and do extra work*' (A teacher cited in Hallam et al., 2011, p. 70).

Table 10.2 Supporting personal creativity through informal learning	**Experimentation with musical instruments/body**
	• 'Most of us like playing instruments […] *Try out* things, *try out* new instruments. We get to learn what note is it like on different instruments' (Ho, 2013, p. 120)
	• 'Performing the claps. You can make like different clapping ways…is like you think about something new on your own… *create something new*…yah…' (Ho, 2013, p. 120)
	Personal creativity through own music
	• Justin: It's really like easy when they leave you to do it by yourself, 'cause you, like you think, you think of something, like *an idea springs to mind* and you just, *you go on the idea* instead of all the teachers going, 'Oh no you got to, you got to do it this way', and you can do it all by yourself, and it just sounds all good' (Green, 2008, p. 111)
	• Marianne: It was, we had a lot if freedom and we could be very *creative*, and when you' re in school you can't really be creative a lot of the time, so it was nice to just have an hour where we could just chill out and do your own things and *just experiment really*' (op. cit., 112)
	• 'We were able to *create our own music*. Learn to use different materials to make sounds' (Chua, 2013, p. 137)
	• 'We learn a lot more music in terms to be able to "converse" using these terms during music lessons. We are given more *freedom to express our creativity*, for example, the teacher calls upon students to lead warm-ups, allow us to come up with our own STOMP performances and asks the students for *opinions* when deciding on the marking rubrics' (op. cit., p. 137)

Collaborative Creativity Through Informal Learning

Collaborative creativity was evident when the learners supported each other during the process of creating their own renditions of the music and their own compositions. During the process of playful experimentation, new ideas emerged over time as a result of 'deep listening' to the music and other team members' opinions and with no direct input from a tutor (see Table 10.3). Musicians listening to the learners' arrangements, improvisations or compositions often describe them as 'sparkling, creative gems' (Green, 2008, p. 164).

In summary, the learners and teachers involved in the four informal learning programmes presented here underscored the contribution of informal learning (especially group playing by ear activities) and non-formal teaching to developing learners' musical skills, especially listening; personal and collaborative creativity, resilience, confidence building, problem-solving and independent learning. These core twenty-first-century skills are nurtured through engaging in exploratory and playful music making in groups. The following section presents original data from a programme that adopted informal learning and non-formal teaching in Higher

Table 10.3 Collaborative creativity through informal learning	Tyler: Stop a minute. I've had a phat idea, yeah. I should come in firs, yeah, I'll be on the drums, and I should go (plays a rhythm with the cymbal)
	Ian: Yeah, and you could have a steady beat. (Tyler plays the Dizzee Rascal drum rhythm)
	Chris: Oh, I wonder where you got that from!
	Ian: Yeah, but you could have Bob come in, and then we could come in on the guitars.
	Tyler: What do you mean, like walking in on the guitar?
	Ian: Yeah
	Tyler: I could just be doing (plays a rhythm)…I could go (starts playing drum rhythm, Bob starts playing piano part). And then I will press play, and we can all go (starts playing fats rhythm drums). Did you hear that?! Shush listen! (plays fast rhythm again)
	Ian: That's wicked!
	Tyler: It kills your arms. I've had a phat idea. I could be going like that (plays rhythm) and then Bob just walks in, sits down at the piano, and when Bob sits down I could go (plays rhythm), and then you come in, skid on your knees and go 'BOOOWWWWEEEE!' And then I will be going (plays rhythm) (Green, 2008, p. 114)
	• 'I enjoy when we got to choose a song and re-sing it so we chose something from the charts and were allowed to sing and play background music to it, drums, basically like *recreating a band*. It's just like teamwork when it all comes together and you play it in front of the class and it actually sounds good.' (Hallam et al., 2011, p. 140)
	• '… they [the learners] just keep going, they interrelate with the staff, suggest how work could be improved, have another go at it, and the resilience and the stamina to keep going has become an integral part of the teaching approach and so—the whole issue of *transferability,* resilience, *creativity, team-work,* judging when to be independent and when to be a member of the team is developing very nicely. I want to link across the school the *problem-solving approach*, and again the approach that the music team are using encapsulates that completely. So it's got everything we want as a teaching approach' (Head teacher) (Hallam et al., 2011, p. 154)

Education and explores how this programme nurtured music learners' personal and collaborative creativity through the theoretical lens on effective collaborative creativity presented in Table 10.1 (Sawyer, 2007).

Methodology

There has been little research to date on the ways that group playing by ear from recordings can be adopted in formal Higher Music Education contexts with music learners that have experienced a conventional western classical musical education

(Varvarigou, 2016, 2017a, b). The original study in focus engaged forty-six, first-year undergraduate students in groups playing by ear from recordings, over the period of five weeks, for 40 min each week. This experience was part of a module called Practical Musicianship that aimed to allow students to establish a foundation of practical musicianship skills in a number of areas such as aural, harmonisation, keyboard, basic conducting and improvisation. Data were gathered through learners' weekly reflective logs (n = 194), end of programme feedback forms (36) and learner interviews (n = 4) (more information on the aims and methods of the programme can be found in Varvarigou, 2016, 2017b). The analysis focused on thematic discovery from the transcripts and was achieved through open, axial and selective coding (Creswell, 2007). During *open coding*, key words and key concepts emerged by a constant examination and comparison of the transcripts. Open coding was followed by *axial coding*, where blocks of categories grouped together to describe core phenomena related to the activity of playing by ear, in groups, in Higher Education. In the third step of the analysis, termed *selective coding*, key concepts emerged and validated the interrelationship of categories. The process of thematic discovery allowed the researcher to shift concepts around until relations of the categories with each other and with the collective dataset were achieved.

Nurturing Personal and Collaborative Creativity Through Informal Learning in the Higher Education

This study adopted the same pedagogical approaches discussed earlier, namely informal learning and non-formal teaching: The music learners formed their own small groups, chose what instruments to play and copied by ear some designated and free choice pieces. The role of the tutor was to explain the aim of the activity to the learners, which was to create 'their own versions' of the songs. The tutor encouraged group experimentation, but students were nonetheless free to aim for an exact copy or to aim for freer renditions rather than accurate imitations of the original pieces copied and to encourage them to engage in group experimentation. The experimentation with the musical material could include adding or omitting notes or changing the dynamics, tempo, rhythm and harmony as long as they kept the flow of the music. Through working in small groups, the musicians could practise leadership, demonstrate initiative and personal creativity and learn how to contribute to group decision-making and how to promote collaborative learning.

Given the high level of technical and musical competence of the Higher Education musicians, the tutor provided complete autonomy to the students by letting them 'work up' the music without interfering in their decision-making. On a couple of occasions, the tutor was asked to offer an opinion on the creative renditions of the pieces performed by the musicians, but this opinion did not necessarily influence the groups' final decisions on the performance of the pieces. This study placed particular emphasis on the music learners' perceptions of developing

personal and collaborative creativity through informal learning and through playing by ear from recordings in groups.

The programme in focus aimed at developing the students' aural, creative musicianship and improvisation skills by encouraging them to play musical pieces from different musical genres (popular, classical and a piece of free choice) by ear. There were three stages to the programme: the musical material for the first stage was a pop/funk piece of music; and for the second stage a selection of classical pieces arranged for the purposes of the programme. The audio material used for the first two stages of the programme is available in the book 'Hear, Listen, Play' (Green, 2014). The third stage encouraged each group to copy by ear one piece of music of their own choice. The musicians were asked to create freer renditions rather than accurate imitations of the original pieces copied. Moreover, they were encouraged to experiment with the musical material by making changes in the dynamics, tempo, rhythm, harmony and even the melody, and to create and add new material to the pieces copied as long as they kept the basic features making the original piece readily recognisable. The musicians played their principal or second instrument (detailed information on the aims, methods and other findings of this programme can be found in Varvarigou, 2016, 2017b). The musicians in this study had the technical facility with a musical instrument required for music studies at the university level, which enabled all participants to play an instrument regardless of whether they were the first study instrumentalists or vocalists.

Personal Creativity Through Informal Learning in Higher Education

Personal creativity was identified through a variety of strategies that the musicians adopted whilst copying music by ear, including working out the key, guessing the first note, playing a scale or random notes in order to find the first note, working out the pitch and the rhythms together, experimenting with the music and with their instruments and improvising. Individual strategies for improvisation adopted by the young musicians included adding ornaments based on scales, changing the rhythm, incorporating other melodies and missing notes out. Listening to each other was a key mediator to improvising (see Table 10.4).

The programme recognised and celebrated the diversity of abilities in playing by ear, in 'on the spot' musical arrangements and improvisations and the musicians' familiarity with and interest in different musical genres. Therefore, personal creativity was nurtured by encouraging individual interpretations of the music copied, within the group context, and by endorsing musicians' individual processes when manipulating the musical elements of the pieces rehearsed. The last comment of Table 10.4 by a young flautist is quite telling: although she did not consider it an improvisation because she 'didn't play continually', this musician actually had the opportunity to create her own rendition of a melodic line by leaving 'some notes

Table 10.4 Supporting personal creativity *through informal learning in higher education*	**Experimentation with musical instruments** • 'I figured out the very basic shape of my melody then was able to add in extra notes. It helped putting the melody an octave higher since my fingers weren't then bound by a specific pattern' (Lindsay—clarinet) • 'This week, my group managed to work through Bach's Minuet…My thoughts are that I can pick the strings of my guitar to create a broken chord figure and as the song progresses I can begin to strum my guitar to create a fuller texture' (Veronica—acoustic guitar)
	Experimenting with the music • 'As others were working out the parts I *experimented* by playing the melody in a minor key, which sounded interesting!' (Lucas—bass) • 'It has been really helpful to get some more dynamic…to combine classical music and contemporary repertoire…I did play on the cello some of the violin parts and I was able to identify the melody and to *recreate* it quite well. I think that being a string player has developed my pitch…I really enjoyed this session…I think it helps us *develop our musical creativity*' (Heather—cello) • 'When [the melody] was strong I added the ornamentation played by the original violinist. The piece has a delicate drawn-out nature which I captured with reverb and rubato' (Ross—electric guitar)
	Improvising • 'I listened to the chords and worked out the key and therefore knew the scale so I attempted to improvise on that key and within the context of my fellow players' (Miriam—violin) • 'I then played the notes of the chords, with different rhythms to create some variety. Sometimes in parts, I also played the melody as well, but only when the other parts were a bit overpowering and the melody couldn't be heard' (Ruth—sax) • 'This week I learnt the melody which was slightly more challenging… The rhythm is differing so took some time to get it all together. This week I didn't add any improvisation, if anything I left some notes out and didn't play continually to allow the listener to hear the other parts' (Gina—flute)

out' allowing the listener to hear the other parts. Despite the fact that it might not be recognised as such by the musician herself, this was a form of creative improvisation.

Collaborative Creativity Through Informal Learning in Higher Education

Collaborative creativity was manifested through the different ways that the groups went about creating their own renditions of the music whilst 'messing around' with

the pieces: through purposive listening; manipulating the musical elements as a group; arranging the pieces for unconventional ensembles; building on their fellow-musicians' ideas over time after rejecting ideas that the musicians felt did not represent the group's creative intentions and without guidance or input from a tutor. A good example of group creativity was Lucy's account below of her playing '*dissonant music*' that did not appear to '*fit together*'; yet the group decided that '*it sounded good that way*' and her version was adopted for the final performance of their piece. As the groups became comfortable with the music, the members reported moving quickly into '*playing with music*' within a group (see Table 10.5).

Group improvisation was instigated by the group members in order to '*make the pieces sound more interesting*', and it was achieved by altering the pieces' structure (Cognitive route to improvisation) and by improvising through harmonising/fitting in with others' parts (Auditory route to improvisation) (see Fig. 10.1).

All groups successfully navigated through the process from purely imitating the musical phrases to inventing answering phrases, making up new phrases and improvising (embellishing the melodic lines to creating new melodic lines that were added as different sections to the pieces copied). The groups that adopted a Cognitive route initially focused more on the structure of the pieces and explored

Table 10.5 Collaborative creativity *through informal learning in higher education*	• 'As we knew our parts we decided to improvise our piece to make it sound different. We improvised the structure making it into ternary form. We started with the bass on its own, then added piano chords. I then came in with the melody A, then we all dropped out and bass B and melody B played once they finished A came in again. In Link Up we came in one by one the split off into our groups in the form of ABA, we all then improvised on our parts.' (Jonathan—clarinet) • 'This week we were playing Concerning Hobbits' with two new members to the group. In the short practice period we had to try and communicate the structure and individual parts. This was very hard to do in such a short time, which meant that when we went to record it, part of it was improvised adding a whole new element of playing by ear' (Ross—bass) • 'After we played through the piece a few times, we then started to play around with our own parts, improvising our melodic lines, whilst still harmonising our parts and keeping in time with each other. This gave the piece a feeling of freedom and more of a swing to it…It was important to listen to each others' different parts, so we could keep time with each other and know when to come in with our own parts. And also to make sure every part could be heard individually during the piece, whilst keeping together and complementing each other' (Lucy—recorder) • 'After we played through the piece a few times, we then started to play around with our own part, improvising our melodic lines, whilst still harmonising our parts and keeping in time with each other. This gave the piece a feeling of freedom and more of a swing to it' (Freya—piano)
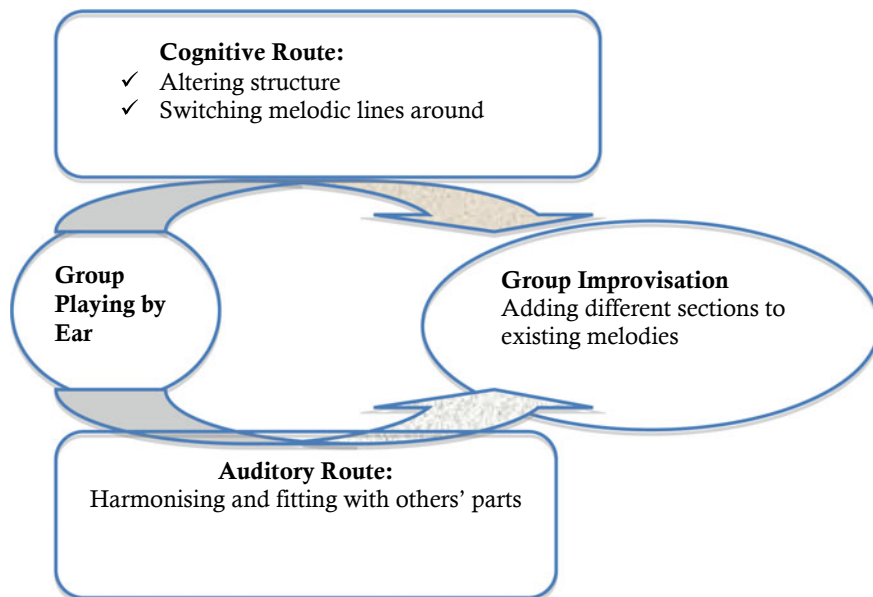
Fig. 10.1 From group ear playing to group improvisation

ways of moving the melodies around by encouraging the musicians to exchange melodic lines. The groups that adopted the Auditory route started straightaway to harmonise along the melodic lines played by the recording and to alter the material so that it complemented their fellow musicians' renditions. Each group's final performance after five weeks of the programme comprised variations of the pieces copied that were created on the spot and 'new' sections that were pre-composed but embellished on the spot. This suggests that collaborative creativity supported both spontaneous improvisation but also ways of composing their own sections to the music copied by ear. During the final performance of the pieces by each group, which also constituted an assessment point for the programme, the examiner, an expert in free improvisation and jazz performance, commended the students' improvised and pre-composed sections for their originality, especially with reference to melodic contour, rhythmic variations and orchestration.

Collaborative Creativity and Playing by Ear in Groups

Studies on informal learning in the secondary school and the author's original investigation on informal learning within Higher Education highlight that group playing by ear from recordings holds unique potential in nurturing and promoting personal and collaborative creativity. Both forms of creativity are among the core

skills of the twenty-first-century global learner, for they advance self-directed and collaborative learning; confidence building through risk-taking and problem-solving and well-being through an enhanced sense of competence, autonomy and relatedness.

Sawyers' work (2007) on collaborative creativity provided the theoretical lens for this chapter by illustrating how engaging in informal learning through playing by ear from recordings fosters the development of personal and collaborative creativity. First, innovative ideas that emerged from the students' and young musicians' performances resulted from the music groups' playful experimentation with the musical material over the course of the programmes. Second, 'deep' purposive listening to the music and to the group members' ideas allowed the groups to make joint decisions about how to manipulate the musical elements of the pieces copied in order to produce different renditions (and in the case of the young musicians, their own improvisations and compositions) of the pieces copied. Sawyer (2007) underscores the 'importance of listening to each other with a degree of concentration and intensity, coordinate their voices and negotiate a musical synergy' (p. 35). This was evident in the responses of the participants from all programmes in formal music education discussed. Third, the team members regularly built on their collaborators' ideas in order to create successful renditions of the pieces and improvisation sections. It was often the case that peer learning supported the development of music learners' technical skills on musical instruments, their familiarity with different musical genres and the process of experimentation and improvisation. Fourth, as the music groups navigated through the different stages of the programmes, they acquired greater control of the processes of copying music by ear and of creating arrangements and improvisations of the musical material copied. In other words, the process through which copying music by ear can act as a scaffold for the creation of 'new' musical version of the pieces copied became clear the more the music learners engaged with it in their groups. Fifth, as the musical ideas (and within the secondary school context the technical skills of the students) developed, the music groups explored a variety of exciting ways of organising, orchestrating and staging their performances as demonstrated in the students' and young musicians' comments. The final performances illustrated how musical creativity and innovative ideas emerged through collaborative processes. Finally, the creative outputs resulted from collaborative peer interactions with minimal or no input from a tutor.

Through collaborative music making, the music learners not only developed their creativity but also a wealth of musical and social skills. To begin with, the music learners reported development in listening, musical appreciation or 'critical musicality' (Green, 2008), improvisation, composition, harmonising and technical instrumental skills. What is more, peer learning, opportunities for learning to take others' opinions, communicating one's ideas clearly to others, appreciating and acknowledging others' contributions and gaining confidence by playing with others were some of the core social skills nurtured through group interaction and music making.

Johnston (2013, p. 392) emphasised that an improvisation pedagogy rooted in collective experimentation is likely to support individuals to 'make important personal creative breakthroughs' and to 'nurture in students a disposition that recognises that our situations—both musical and social—are mutable rather than fixed'. The instability in the educational landscape is acknowledged by numerous music scholars who advocate for creativity's central place in education not least because modern economies depend on creativity thinking and creative workers (Allsup, 2016; Baker, 2014; Burnard, 2012; Heuser, 2014; Odena, 2012). The programmes discussed here revolved around a pedagogical approach with foundations in informal learning that nurture learners' creativity by engaging the learners in experiences that are collaborative, exploratory and playful promoting divergent thinking and autonomy. These experiences can support creativity in tandem with a lifelong engagement in and enjoyment of music.

Nurturing Creativity—Implications for Practice

The pedagogical approach to encouraging personal and collaborative creativity during group music activities outlined in this chapter has significant implications for music teaching in secondary and Higher Education. First, it requires all music educators to examine our assumptions about musical creativity and to be 'reflective and critical' about our understanding of creativity, its purpose in music education and about our role in enabling music learners to experience creativity (Burnard, 2012, p. 326). All programmes recognised creativity as an attribute found in all learners and all music groups and fostered it by facilitating musical playful experimentation with musical material that they had the freedom to change. All tutors distanced themselves from the notion of 'right' and 'wrong' during the process of learning and reproducing the music. Second, both programmes encouraged the tutors to reconsider their roles during the process of their students' learning by stepping back, observing and assessing the learners' needs allowing learner autonomy and space for experimentation before mediating to provide musical help. Rodriguez (2009) was concerned that music teachers might need more guidance on how to do that: a concern which has seen responses in Green's own guide for practitioners, *Hear, Listen, Play* (2014) as well as in the growth of a range of teacher-development programmes (see e.g. those in Notes 1–4) and the programme in Higher Education presented here (also see Heuser, 2014). Recommended strategies include listening to the students' musical intentions before providing any technical/musical support; engaging the learners in discussions about their understanding of their performances allowing them time to reflect; analysing possible problems or limitations and thinking about solutions (Ho, 2013); connecting aurally acquired information to existing knowledge about scales, keys, rhythms or other parameters; leading students by singing pitches rather than giving note names straight away; juxtaposing traditional methods of teaching and learning music with a contrasting approach, for example, string ensemble (written notation)

with folk ensemble such as mariachi (aural tradition), jazz pedagogy (written notation with improvisation) and iPad Band (creativity, composition) (Heuser, 2014) and others. Third, peer learning was acknowledged as a useful resource for developing the creative artist. As the tutor steps back, the peers take up the role of the tutor and the motivator. Collaborative creativity is dependent on peer interactions and experimentations and should therefore be facilitated in all group music making settings and at all levels of education. Finally, technology provides new possibilities for personal and collaborative creativity. From CDs and Spotify, to YouTube, video games and apps on mobile phones, tablets and other gadgets, technology should be considered as a useful tool in supporting creativity and collaboration whilst developing musical, interpersonal and communication skills in the learners who use it in groups and alone.

Moving from playing by ear to experimentation and improvisation encourages, on the one hand, young learners with the limited technical facility to experience musical creativity as a practical communal encounter that could motivate them to pursue music learning for further education or just as a recreational lifelong endeavour. On the other hand, learners aspiring to become professional musicians see creativity as an inseparable ingredient of group music making, as an activity of possibility for playfulness and connection with others and as a core feature of their portfolio practice in the many professional contexts that musicians nowadays operate.

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Chapter 11
Community Music-Based Structures of Learning (CoMu-Based SL) Framework: Nurturing Critical Musicality and Artistic Thinking

Pamela Costes-Onishi and Imelda S. Caleon

Abstract This chapter presents findings that strengthen and refine the theory that when Community Music-based Structures of Learning (CoMu-based SL) is used as a framework in teaching general music education, twenty-first-century skills (critical musicality) and dispositions (artistic thinking) are effectively nurtured in the process. Through design-based methodology, specialist music teachers developed units of lessons using CoMu-based SL that impact students' critical musicality and artistic thinking relevant to the future. The results of the study are intended for the development of future models of pedagogies founded on artistic thinking towards a theory of aesthetic education.

Introduction

The arts have always been understood as domains that bear affordances for nurturing competencies and dispositions that are associated with the twenty-first century such as creativity, collaboration and critical thinking. However, there remains a gap in research that would empirically prove this connection and therefore in arguing their relevance to education (Winner, Goldstein, & Vincent-Lancrin, 2013). Proponents of arts integration have been advocating for aesthetic education or the extraction of the types of teaching and learning in the arts that can be transferred as dispositions to general learning theory (Gadsden, 2008; Hetland, Winner, Veenema, & Sheridan, 2006, 2013). Indeed, one of the ways to innovate curriculum is through the arts. Arts integration is a movement to place the kinds of thinking and behaviour central to the arts at the core of education (Krug, 2000; Marshall, 2014; Rolling, 2010; Sotiropoulo-Zormpala, 2016).

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The authors of Studio Thinking stress, before we can make a case for the importance of the arts in education it is necessary to "find out what the arts actually teach and what art students actually learn" (Hetland et al., 2013, p. 1). Examining the teaching and learning processes inherent in community music is therefore one of the best routes in extracting the kinds of thinking and behaviour in the arts that have relevance to twenty-first-century skills and dispositions. In order to achieve this, the study presented here will discuss the findings for one of its research questions, which asked: How can the learning structures inherent in community music be developed into an effective module for the primary and secondary General Music Programme (GMP) classrooms in order to nurture twenty-first-century dispositions that are central to artistic thinking?

Research Background

In a previous grounded theory research (Costes-Onishi, 2019), a theory was generated that when the Community Music-based Structures of Learning (CoMu-based SL) (Table 11.1) are used as a pedagogical framework in the general music education, critical musicality and artistic habits of mind are nurtured in the process. These skills and dispositions are nurtured because they are the kinds of behaviour and thinking embedded within the learning processes of community music. The

Table 11.1 Community music-based structures of learning

Item	Structures of learning	Music-specific pedagogies
1	Critical learning	• Development of musicality (performing, responding, creating, and theoretical understanding) • Appreciation of diverse musical systems (includes discussions/debates on musical preferences)
2	Authentic learning	• Use of actual instruments of the music they are learning • Interaction with traditional musician and culture bearer
3	Creative learning	• Improvisation • Variations • Experimentations
4	Active learning	• Dance/body movements • Practical, hands-on
5	Aural/oral learning	• Call response/imitation
6	Pattern-based learning	• Repetitive patterns • Rhythmic-based/rhythm patterns
7	Collaborative learning	• Group performance learning • Peer learning/critiquing • Teacher/facilitator involved at all times in music-making

habits of mind were found to be aligned with Studio Thinking (Hetland et al., 2013) and referred to in the study as Artistic Thinking.

In this follow-up research, the addition of primary class prepares for further study on the validity of the findings across all levels; while the secondary class application not only continues to improve on the module designs at this level but also widens the applicability in different classroom contexts. This module development was designed with teachers who trained in a week-long workshop for teacher learning and professional development (TLPD) on community music education and practical skills on two music cultures, Latin American and Arab. This important TLPD is intended to increase teacher self-efficacy (Bandura, 1997) in implementing CoMu-based SL for the teaching of multicultural music.

The previous study revealed a gap in the intended outcomes of increasing critical musicality, student engagement and habits of mind due to the lack of pedagogical content knowledge (PCK, Shulman, 1986) specific to the music cultures. PCK is the process of how subject matter content is transformed into content of instruction and how students actually learn. Paying attention to PCK enables us to look at the capacity of the teacher to translate knowledge that is most suitable to a domain, classroom conditions and students. In adding the component of TLPD, this study supported the teachers' PCK and thereby increased their self-efficacy in achieving their desired student outcomes through the CoMu-based SL. Focusing on PCK through TLPD will also address the quality of teaching within the arts, which is an important first step in the effective nurturance of the kinds of thinking and behaviour necessary in these domains (Cannatella, 2015). It is only when the teaching within the arts is improved significantly will the possibility of arts integration in the general curriculum can be realized. This chapter presents the module designs and re-designs of the teachers and the corresponding pedagogical approaches that effectively nurtured twenty-first-century skills (critical musicality) and dispositions (artistic thinking) among the students.

Methodology

This study used the design-based research methodology in answering its research questions. Design-based methodology is suitable to this study in two major points (Anderson & Shattuck, 2012; McKenney & Reeves, 2013): (1) it seeks to develop/ refine a theory on aesthetic teaching and learning based on community music (theory building); and (2) it is an intervention study that seeks to develop a module design for improved learning in all types of learners in varying classroom situations (practical application). Furthermore, the initial theory building is also domain-specific, a modest characteristic of most design-based research (Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003). Table 11.2 shows the research design process that is relevant to the findings presented in this chapter.

Table 11.2 Research design process

Stages	Participants	Duration/data collection	Objectives
In-service teacher workshop at NIE	Participants: 5 specialist teachers (3 secondary, 2 primary)	3 days, 6 h per session	To develop PCK (Bandura, 1997) in Arab and Latin American music
Classroom implementation, co-design	Participants: 2 specialist teachers (1 primary, 1 secondary)	Videotaped lessons (second iteration: 16 lessons, 12.20 h) Lesson designs (first and second iterations) Teacher reports (22 lessons, first iteration)	To co-design units of lessons with teachers To further increase the teachers' PCK in teaching multicultural music
FGDs and interviews	20 students, 2 teachers, 2 musicians	Teacher FGD (1.5 h, first iteration), teacher individual interviews (1.35 h, second iteration), student FGDs (1.5 h, second iteration) and musician interview (1 h, second iteration)	To determine the impact of the CoMu-based SL on teacher self-efficacy and student learning

The analysis in this chapter will focus only on the impact on students' twenty-first-century skills (critical musicality) and dispositions (artistic thinking) of the module designs and corresponding pedagogies.

Sample

Table 11.3 shows the details of the participants from which the results relevant to this chapter's focus were based upon:

Table 11.3 Sample

Participants	Type/group	Characteristics	Total
School A (primary)	Class 1 (control)	60% male, 30% female, and 10% did not specify gender 9–10 years old	10
	Class 2 (experimental)	59% male, 32% female, and 9% did not specify their gender 9–10 years old	22
School B (all-male secondary school)	Class 3 (original design)	45% were 13 years old and 55% were 14 years old	29
	Class 4 (modified design)	39% were 13 years old, 54% were 14 years old, 7% were 11–12 years old	28

<u>Measures and Analysis</u>

Quantitative

We used the Critical Musicality Scale (Costes-Onishi & Caleon, 2018) to assess the dimensions of students' critical musicality (domain-specific twenty-first-century skills). These dimensions, along with the sample items are shown in Table 11.4. The students responded in a Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree).

We adapted five items from each of Skinner, Furrer, Marchand and Kinderman's (2008) behavioural engagement subscale (e.g."*When I'm in my Music class, I participate in class discussions*"), behavioural disengagement (i.e. "*When I'm in music class, I just act like I'm working*"), and emotional engagement subscale (e.g. "*I enjoy learning new things in Music class*") and emotional disengagement ("*When I'm in music class, I feel bad*"). The students responded using a Likert response scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The mean score per scale was calculated, with higher mean scores suggesting higher classroom engagement. Earlier research reports (Skinner et al., 2008; Reeve & Tseng, 2011) have found satisfactory reliability (Cronbach's alpha = 0.71–0.88) of the academic engagement subscales. In this study, the reliability of emotional engagement and behavioural engagement were 0.62 and 0.50, respectively.

Table 11.4 Dimensions of critical musicality with sample items

Dimension of critical musicality	Description	Sample item
Critical cognitive/ aural cognition-group (3 items)	Reflects the cognitive dimension of critical musicality which focused on understanding the formal qualities of musical sounds and developing listening skills through collaborative learning	*When I perform in a group, I know if I am not playing my part together with the others*
Critical cognitive/ aural cognition-personal (3 items)	Reflects the cognitive dimension of critical musicality which focused on understanding of musical concepts is primarily through aural listening	*I can tell if the instrument is not played correctly by the sound it produces*
Critical extramusicality (3 items)	Represents the contextual (historical, cultural and political) understanding of the music and the development of advocacies for musical diversity in the curriculum	*I am aware of the difficulties in performing music*
Critical affective response (4 items)	Refers to students' enjoyment in and perceived relevance of music	*I like to play the kind of music we learn in my music classes*

As the sample size for School A Class 1 and Class 2 are unequal and the data for the measured showed significant deviations from normal distribution, non-parametric tests were used. Mann–Whitney U test was used to compare the pre-test scores of the Class 1 and Class 2. Wilcoxon test was used to compare the pre-test and post-test scores of Class 1 and then of Class 2. As the participants for School B Class 3 and 4 were roughly comparable in number and the students' scores across measures were approximately normal, we used parametric statistics to compare the change in scores of the two classes from pre-test to post-test. A series of repeated measures analysis of variance (RANOVA) with time as within-subjects factor, class as between-subjects factor and engagement dimensions as dependent variables were conducted.

Qualitative

The primary students also responded to a post-lesson open-ended survey. Table 11.5 shows the questions asked:

The first five questions were meant to establish how the framework CoMu-based SL nurture twenty-first-century dispositions that are central to artistic thinking. The alignment of Artistic Thinking (Observe, Stretch and Explore, Engage and Persist, Develop Craft, Express, Envision and Reflect) based on Studio Habits of Mind with the twenty-first-century dispositions reflected in the Ministry of Education (MOE) of Singapore appeared in Costes-Onishi (2019). These questions were repeated in the FGDs with the students in order to reinforce the clarity of perceptions.

We used structural coding and hypothesis coding (Saldaña, 2009). Structural coding is a question-based code suitable for the comparison of open-ended surveys and semi-structured interviews. This coding was used because of its strength in hypothesis testing and exploratory investigations that compliments the second type

Table 11.5 Open-ended survey for primary students

Q1	How do you feel about the lessons on learning Latin American music? What are the things you like about it? What are the things you do not like about it?
Q2	How did the way the lessons were taught to you help you learn to appreciate music more?
Q3	In what ways do you feel more confident playing music after these lessons?
Q4	How would you compare the way Latin American music lessons were taught with your usual music classes? Which approach do you prefer and why?
Q5	Would you like to learn more about Latin American music and music from other cultures as a result of these lessons? Why or why not?
Q6	In what ways do you think you have developed other non-musical skills through the way the lessons were taught? For example, do you think it taught you to try out new things, patience, teamwork, etc.?

of coding applied in the study. During hypothesis coding, we applied a researcher-generated predetermined list of codes using the CoMu-based SL and Artistic Thinking. Hypothesis coding is suitable for its deductive method of testing a theory generated from a previous study.

Findings and Discussion

Two units of lessons in Latin American music for primary and secondary schools were co-designed by the researcher and the teacher-collaborators for a further development of the CoMu-based SL framework. The units of lessons were subjected to a second re-design resulting into slightly changed approaches. This chapter will focus on the data gathered during the second iteration.

We compared experimental and control groups for School A (primary) and comparison groups for School B (secondary). The results ascertained the effectiveness of the designs, including re-designed modules. Table 11.6 shows the general activities incorporated in the lesson designs. We can see that as much as possible, the teachers tried to structure the classes around the CoMu-based SL. In this study, we hypothesized that the impact on critical musicality and artistic thinking is optimized when at least 5 out of the 7 structures of learning are activated at a given lesson. In the lesson designs, we can also deduce that creative learning is lacking and that critical learning is limited to cognitive understanding of music. The design needs to be improved with regard to these two structures of learning, specifically in increasing the critical extra-musicality of the students. We also found that while authentic learning can be achieved through approximations and substitution of instruments available in the classroom, the impact on student engagement and critical musicality seems to be higher when actual instruments from the tradition are used.

RQ: How can the learning structures inherent in community music be developed into an effective module for the primary and secondary GMP classrooms in order to nurture twenty-first-century dispositions that are central to artistic thinking?

School A (Primary)

The results of both Class 1 (control) and Class 2 (experimental) are relatively similar when it comes to their enjoyment of the music learned in their classes. Students in both classes enjoyed their music lessons for the following reasons: "I get to learn [Latin] American music other than Singapore music" (Class 2) and "I like the different music tradition" (Class 1). Students also enjoyed because "I like playing instrument" (Class 1) and "I can play with the instruments" (Class 2).

Table 11.6 Module designs using CoMu-based SL

Primary 4 (experimental)		
Lessons	First iteration	Second iteration
Lesson 1	• Understand the concept of body percussion • Maintain a rhythm in a steady beat on hand drums in a drum circle activity • Imitation using body percussion • Keeping steady beat by passing hand drums around the circle in time • Teacher links the rhythms learned to Latin American music CoMu-based SL (5/7): active learning, collaborative learning, aural/oral learning, pattern-based learning, critical learning	• Session with the musicians • Brief introduction to Latin American music • Students practice to keep steady rhythm by marching on the spot • Students played the rhythm using sticks and hand drums • Rhythms are played with merengue music as played by the musicians CoMu-based SL (5/7): active learning, authentic learning, collaborative learning, aural/oral learning, critical learning
Lesson 2	• Recap of steady beat by passing four hand drums in a circle • Teacher divides circle to teach the timbal rhythm; teacher had students use 'hey' to feel the rests • Teacher introduced the song Guantanamera while having students clap the timbal rhythm with the song • Students then take turns in groups singing and clapping the rhythm CoMu-based SL (5/7): collaborative learning, active learning, aural/oral learning, critical learning, pattern-based learning	• Teacher taught the tambura rhythm in merengue music Tambura rhythm taught through body percussions initially through imitation • Students were encouraged to variate their rhythms CoMu-based SL (6/7): active learning, aural/oral learning, creative learning, critical learning, collaborative learning, pattern-based learning
Lesson 3	• Play the clave rhythm on the keyboard using notes taught to accompany the melody of 'Guantanamera' • Rhythms taught clave rhythm through imitation • Students learned bass line of Guantanamera on keyboard CoMu-based SL (6/7): aural/oral learning, authentic learning, active learning, collaborative learning, critical learning, pattern-based learning	• Teacher guided the pupils to understand that the 1–2 rhythm falls on the heavy beats of the tambura rhythm and pupils clapped the tambura rhythm while walking to the steady beat in left right motion in a circle. Pupils were guided to walk in the tambura rhythm in a circle to establish the rhythm • Musical instruments were given to the pupils as they improvise according to the tambura rhythm while walking to the music • Pupils learned movements to a dance using instructional video aids. Pupils were given the opportunity to improvise movements to the music CoMu-based SL (6/7): critical learning, active learning, collaborative learning, creative learning, aural/oral learning, pattern-based learning

Table 11.6 (continued)

Primary 4 (experimental)		
Lessons	First iteration	Second iteration
Lesson 4	• Perform three separate rhythms collaboratively as a class under the instructions of guest musicians CoMu-based SL (5/7): collaborative learning, authentic learning, aural/oral learning, active learning, pattern-based learning	• Session with the musicians Students played on instruments the steady beat of the merengue while musicians played with them • Students were asked to dance using the 1–2 merengue rhythms taught to them • Focused on music-making CoMu-based SL (4/7): authentic learning, active learning, collaborative learning, aural/oral learning

Secondary (2nd iteration)		
Lessons	Design 1	Design 2
Lesson 1	• Students learned to feel a steady beat • Students were taught rhythms associated with Latin American music such as quarter notes, eight notes aurally • Students were introduced to the clave rhythm • Students were grouped into 4s and asked to practice the rhythms with one improvised line CoMu-based SL (5/7): critical learning, pattern-based learning, collaborative learning, creative learning, aural/oral learning	• Session with the musicians Musicians performed for the students and taught the basic theory of Latin American music CoMu-based SL (4/7): authentic learning, critical learning, pattern-based learning, aural/oral learning
Lesson 2	• Emphasis on group performance • Introduction of the instruments • Students were asked to describe timbre of instruments • Students performed in groups using the rhythms and the instruments • Teacher and students provide feedback CoMu-based SL (5/7): collaborative learning, authentic learning, critical learning, active learning; aural/oral learning	• Teacher taught the clave rhythm through imitation and having them embody the beat by stomping around the classroom and in a circle • Teacher taught the bongo and conga rhythms through aural learning, first with tapping on the lap using motions of drum playing, then with the instruments, which were passed around in the circle in time CoMu-based SL (5/7): aural/oral learning; collaborative learning; active learning; authentic learning; pattern-based learning
Lesson 3	• Review of the rhythms • More elaboration on the organization of rhythms around the clave • Group practice on the instruments • Refinement of techniques on the instruments	• After reviewing the rhythms as a class, students were broken into groups of 4 • Students chose their instruments to play in the groups and practiced to perform in the class with one

Table 11.6 (continued)

Lessons	First iteration	Second iteration
Primary 4 (experimental)		
	CoMu-based SL (5/7): critical learning; authentic learning; collaborative learning; active learning; pattern-based learning	non-Latin American instrument of their choice • Techniques on the instruments and improvisations were emphasized CoMu-based SL (4/7): collaborative learning; creative learning; authentic learning; active learning; pattern-based learning
Lesson 4	• Class group performances • Teacher and peer feedback CoMu-based SL (3/7): critical learning; authentic learning; active learning	• Students performed for each other in the class • The teacher and the students provide feedback on the performance • Teacher used the opportunity to correct techniques and explain theory • Teacher emphasized how Latin American rhythms are organized around the clave • Students practiced relating theory to their performance CoMu-based SL (3/7): critical learning; authentic learning; active learning
Lesson 5	n/a	• Students performed with the musicians • Musicians refined the students' performances and techniques CoMu-based SL (4/7): authentic learning; active learning; collaborative learning; critical learning

However, there were some points noted by the students in Class 1 that were not mentioned by the students in Class 2 on why they did not enjoy their music class. Students in Class 1 said, "I do not like to use a recorder" and "I don't like writing on music booklet". The results suggest the potential effectiveness of the intervention in terms of providing opportunities for learning music from a different culture and showing that active and authentic learning in the instruments contribute to enjoyment, which is an emotional response in critical musicality. In contrast, learning a similar music using the normal approach with recorders and notation ("He tells us to take out our booklets and then [we] must see the notes and then [we] play") caused students to dislike or not enjoy their music class. In Class 2, students expressed that they enjoyed their novel musical experience "because we use other instruments (S3)…Ya, the drum! (S2)" pointing to the type of instrument. More importantly, the students expressed that they learned better in Class 2: "Oh! So for the Latin American music you can learn as a group and then when you make a

mistake you can look at your friend to help you because you are sitting in a circle… in a group" (Interviewer confirming what student said very softly).

The most salient Artistic Thinking that came out of the FGD and the open survey for Class 2 were Engage and Persist, Reflect and Stretch and Explore. Students learned to **Reflect** on their working processes and of others as well as **Engage and Persist** in developing focus to bring out ensemble standards through collaborative learning and patience. Students indicated that it is important to have "synchronization in music so everyone knows what beats to play"; "it helps me to be patient and work together as a team"; and "we need teamwork to make a beautiful song". Students also learned to **Stretch and Explore** when they said, "it taught me how to try other instruments" and "it taught me to learn more music and items". For the control group, few students mentioned teamwork but did not elaborate further.

These results may offer an explanation for the quantitative findings (Tables 11.7 and 11.8). The results of the Mann–Whitney U test indicate all scores in the pre-test measures of Class 1 and Class 2 were not statistically significant except for

Table 11.7 Descriptive statistics for the Class 1 (n = 8)

Measures	Pretest			Posttest		
	Mean	SD	Median	Mean	SD	Median
Critical cognitive/aural cognition-group	4.63	1.40	5.17	4.75	1.44	5.00
Critical cognitive/aural cognition-personal	4.58	1.19	4.50	4.13	1.55	4.83
Critical extramusicality	4.17	1.26	4.00	4.50	1.82	5.00
Critical affective response	4.42	1.31	4.88	4.21	1.51	4.67
Behavioural engagement	4.01	1.67	3.75	4.55	1.57	5.00
Behavioural disengagement	2.71	1.21	2.63	3.41	1.94	4.00
Emotional engagement	4.52	1.25	4.30	4.52	1.40	4.88
Emotional disengagement	2.63	1.47	2.58	2.99	2.10	3.58

Table 11.8 Descriptive statistics for Class 2 (n = 21)

Measures	Pretest			Posttest		
	Mean	SD	Median	Mean	SD	Median
Critical cognitive/aural cognition-group	5.18	1.15	5.33	5.03	1.30	5.50
Critical cognitive/aural cognition-personal	4.57	1.33	5.00	4.33	1.07	4.33
Critical extramusicality	4.64	1.35	5.00	4.78	1.02	5.00
Critical affective response	4.94	0.71	5.00	4.79	0.85	5.00
Behavioural engagement	5.16	1.06	5.60	5.03	0.97	5.20
Behavioural disengagement	4.53	1.09	4.50	3.49	1.30	3.75
Emotional engagement	4.98	0.94	5.40	5.20	0.76	5.23
Emotional disengagement	4.04	1.54	4.67	2.79	1.73	2.50

behavioural disengagement (U = 23.00, p = .002) and emotional disengagement (U = 42.00, p = .041). Before going through the intervention activities, Class 2 had higher median and mean disengagement scores than did Class 1. The results of the Wilcoxon test suggest that both classes did not show any significant change in scores from pre-test to post-test in the critical musicality dimensions, behavioural engagement and emotional engagement. Class 2 showed a significant decline in median score for the behavioural disengagement (Z = −2.80, p = .005) and emotional disengagement (Z = −2.40, p = .016); Class 1 did not report a significant change in the behavioural (Z = −1.27, p = .204) and emotional disengagement scores (Z = −1.16, p = .249). One possible interpretation of these results is that the experimental approach was more effective than the control in reducing disengagement in music learning activities. The decline in the median score for emotional and behavioural disengagement may be attributed to the more effective approach of the CoMu-based SL design compared to the normal lessons.

School B (Secondary)

Similar to the quantitative results for School A, the data collected from Class 3 (original CoMu-based SL design) and Class 4 (modified CoMu-based SL design) comparison groups reveal similar findings. This could be caused by the slight difference in the changes made to Class 4: musicians came twice this iteration and the emphasis on the clave rhythm as reference beat. These changes were made as a response to the first iteration findings on the need to increase the sensibility of the students to the Latin American "groove" through music-making. There were no musicians in Class 3.

Students in both Class 3 and 4 found that the hands-on and experiential approach in the CoMu-based SL is more effective in their learning and engagement as compared to any music class they have experienced.

> I would say like, in general, it's more of a hands-on experience. Because in primary school, if we ever had music class actually, they would be talking about the songs. We actually did that last term again for our [secondary] music class. (Class 4)

> There's a lot of theory. There's a lot of understanding the notes and the bars. So, there's not much of an element of fun in that sense. I feel like this music class is more interactive. It's more interesting and enjoyable. (Class 4)

> I think it's more hands-on and interactive….cause like in term one we studied the history of music like during like the olden day periods; that wasn't really very fun. (Class 3)

> I think last year we couldn't experience the physical instrument because it was like purely based on hand-held devices. But then in this year we get to try on the bongos and the congas. (Class 3)

The students also find that "the subject matter [contributes to the enjoyment] because we are learning about Latin music. Usually we learn like western [classical] or eastern [Chinese] music" (Class 3). However, they also commented on the

importance of the approach over the content in order to grasp concepts and provide a sense of achievement.

> I think that having the lesson being interactive is more important than the actual content of the lesson itself. Because if it's interactive, then the students would be able to grasp the concepts better. (Class 3)

> I think this year, more specifically, this term we were seated in a circle with our teacher like leading us to clap along the beat. Compared to last year which was like just listening to him… cause lectures, ah! (Class 4)

> I actually like how these lessons are basically a group of people coming together to make one long-term kind of project; you make one production. And so at the end of it all, there's kind of like a sense of achievement that you have done something. (Class 3)

> With such a big group, at the start there maybe one or quite a few that can't keep up but then as you practice along and you hear the same sound being echoed many times, then you'll be able to keep up with it. (Class 4)

The students believed that the whole class approach to learning in CoMu-based SL is effective as they think having small groups would make the class environment non-conducive to learning because of the simultaneous uncoordinated sounds. Learning as whole class also taught them to work as a team and helped in developing their skills to perform. The whole class learning in circles also helps in learning as they observe each other. **Observe** is a habit of Artistic Thinking. They also learn to **Stretch and Explore** as the whole class learning allows them to commit mistakes without judgment.

> If it is in a small group, then there will be a lot of small groups in this room. Then it will not be very conducive if you are trying to learn something new; because everyone like clapping at different times. So, doing it as a whole class, we can synchronize then it will be much easier for us to take it in. (Class 3)

> S2: Because its more of like team-based work, ah. Because you are working with other people.

> S5: Actually like it makes everyone perform. So like you have to…

> S4: You have to learn something, lah!

> S2: It makes you apply the skills you learn. (Class 4)

> It's [learning in circle as a group] also like learning from other groups; What they are doing correctly or what they are doing wrong. (Class 4)

> When it comes to practice, we are serious in like putting in the effort to do it. But then let's say during when we are actually performing…if you make a mistake it's not such a bad thing because you are learning from it also. If you make a mistake and like you feel, 'oh! I'm off rhythm already!' Then you can like wait for a new bar to go over and then after that start play your instrument again. (Class 4)

The CoMu-based SL design also nurtures the ability to reflect on individual capacities and **Develop Craft** through mastery of an instrument in the ensemble. This is an effect of learning all the rhythms together and passing the instruments in a circle as a class. By the time they break into small groups, the students have already determined the rhythm and instrument they are good at and they also learn the relationships of the different layers of rhythms.

Interviewer: You are all learning the same rhythms?

Students: Yes!

S5: Different kind of instruments. We can just swap.

Int: Did you learn to play all the instruments?

S1: Yah, we definitely touch.

S3: Most of the time we stick to one instrument which we are best in. (Class 4)

Because like each instrument plays on different beat so if you learn the rest like when you play your own part, you know what's gonna happen. Like the part the other person's playing so that you know how to accompany. (Class 4)

Having the authentic instruments also helps students to connect with the music thereby honing their creative abilities. These nurtures **Stretch and Explore, Express and Envision** in Artistic Thinking.

Because if I have a physical instrument, you can have like somewhat a connection. It's quite hard to explain. But you get to like, the way you strike the drum and like it can create a variety of sounds that can help you to compose a piece better. (Class 4)

Finally, the students developed extra-musical awareness, which is an Artistic Thinking of **Engage and Persist** where students see the relevance of context in understanding music. They also see the relevance of **Developing Craft** in wanting to know more beyond the skills they have already learned. They welcomed the presence of the musicians as a result as that gives depth to their understanding of the music and culture.

Personally, I think that the programme itself is enriching but if you are talking about in terms of Latin music, it doesn't really cover so much of the music itself. It's more of us going through a couple of beats, couple of rhythms and then just overlaying piano and bass over it. It doesn't really cover the culture and what kind of style it takes besides like through the form of learning the rhythms. (Class 3)

I think lectures are important. Physically playing the instrument will definitely be more interesting than a lecture. Although a lecture is more informative. (Class 4)

I mean it's definitely not extensive enough, lah, since we have limited time. Sort of like we aren't able to go in-depth because we have such little time. We are just introduced the basic. I mean, I wouldn't mind learning about the histories and the background. (Class 4)

I actually didn't expect musicians to be coming in. I think on a whole it shows what can be done if you add on; if you layer enough rhythms, enough beats and if you coordinate everything comes as a whole. (Class 3)

These findings support the quantitative findings (Table 11.9), which showed that both Class 3 and Class 4 significantly increased in their behavioural ($F(1, 55) = 12.65$, $p = .001$) and emotional engagement ($F(1, 55) = 19.82$, $p < .001$) from pre-test to post-test; their emotional disengagement remained low, albeit a significant increase was noted ($F(1, 55) = 5.00$, $p = .029$). There was no significant change in their behavioural disengagement mean scores ($F(1, 55) = 3.18$, $p = .08$). There was also no time by class differences in the engagement of the students; this means that the two classes showed generally similar patterns of change in their scores form pre-test to post-test ($F(1, 55) < 1.163$, $p > .18$). These results suggest

Table 11.9 Descriptive statistics Class 3 and Class 4

Measures	Class 3 (n = 29)				Class 4 (n = 28)			
	Pretest		Posttest		Pretest		Posttest	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Critical cognitive/ aural cognition-group	4.65	0.74	5.10	0.96	3.86	1.42	4.60	0.96
Critical cognitive/ aural cognition-personal	3.79	1.42	4.82	0.88	3.17	1.17	4.14	1.26
Critical extramusicality	5.40	0.59	5.30	0.79	4.82	1.40	4.99	1.04
Critical affective response	4.24	1.07	5.03	0.76	3.76	1.21	4.19	1.26
Behavioural engagement	4.58	0.66	4.97	0.68	4.21	1.23	4.46	0.76
Behavioural disengagement	3.27	0.97	3.29	1.42	3.51	0.88	3.97	0.97
Emotional engagement	4.46	0.75	4.98	0.72	4.19	1.00	4.46	1.02
Emotional disengagement	2.71	1.01	2.89	1.41	3.09	1.39	3.67	1.24

that both the original and revised Community Music Programmes helped in improving the students' engagement in music tasks; but the modifications made on the programme did not seem to affect its efficacy.

The results of the RANOVA suggest that both classes reported a significant change in scores from pre-test to post-test in three out of four critical musicality dimensions. Both classes showed significant improvements in mean score for Critical cognitive-Group (CG) ($F(1, 55) = 15.32$, $p < .001$), Critical cognitive-Personal (CP) ($F(1,55) = 45.48$, $p < .001$) and Critical Affective Response (CAR) ($F(1, 55) = 9.26$, $p = 0.004$). It needs to be noted that Class 3 started off with higher CG ($t(55) = 2.65$, $p = .011$), CP ($t(55) = 1.96$, $p = .056$) and CAR ($t(55) = 2.65$, $p = .046$) mean scores compared to Class 4, with differences that are at least marginally significant. These mean differences were maintained when post-test mean scores were compared: CG ($t(55) = 2.31$, $p = .024$), CP ($t(55) = 2.34$, $p = .023$) and CAR ($t(55) = 3.08$, $p = .003$). These results could mean that the revised community music intervention was on par with the original community music intervention in promoting critical musicality.

Discussion and Conclusion

The findings strengthened and refined the theory that when the CoMu-based SL is used as framework in teaching general music education both critical musicality and artistic thinking can be nurtured in the process, which has positive correlations to students' behavioural and emotional engagement (Costes-Onishi, 2019; Costes-Onishi & Caleon, 2018). This study refined the theory by identifying critical musicality as domain-specific twenty-first-century skills and artistic thinking as domain-general twenty-first-century dispositions. The student self-reports indicate that twenty-first-century skills (critical musicality) and dispositions (Artistic Thinking) were developed through CoMu-based SL. It also emphasized how the seven structures of learning must be operationalized in tandem at any given lesson in order to achieve the desired effect. The more the structures of learning are combined and present at a given time, the more the impact on critical musicality and artistic thinking. Thus, we can restate the theory as: CoMu-based SL as a framework in teaching general music education achieves significant impact on critical musicality and artistic thinking when the seven structures of learning are maximized in every lesson within a unit design.

Other factors also contribute to achieve more significant impact including the incorporation of creative learning opportunities and authentic learning in the actual instruments being learned. As with the previous study, there is still a low level of critical extra-musicality among the students, as critical learning seems to be constrained by curriculum time, being sufficient only to impart the cognitive understanding of music. Thus, creative learning, authentic learning and critical learning are the areas that need more attention in subsequent module designs and TLPD. Finally, for further research, the findings can be tested to design models of pedagogies on aesthetic education that builds upon CoMu-based SL for arts integration. This is for nurturing artistic thinking in the schools necessary for the future.

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Part V
Preparing Future-Ready Teachers and Students Through the Arts /in/ Education: Benefits to At-Risk Students

Chapter 12
Frameworks and Methodologies for Understanding Arts Integration with Culturally Diverse and Struggling Learners

A. Helene Robinson

Abstract "Disruptive engagement" is a term that means to dare to re-humanize education (Brown, 2015). I hope to inspire "disruptive engagement" by proposing a conceptual framework with applications for research to explore how arts integration can re-humanize education for culturally diverse students. First, I review the literature on academic achievement and arts education across countries and on arts integration with culturally diverse populations. To introduce my theoretical framework, I discuss the relationship between creativity, curiosity, vulnerability, and disruptive engagement. Next, I describe the arts integrated learning contexts and how it aligns to the Universal Design for Learning guidelines (CAST in Universal design for learning proving valuable in advancing education reform nationwide 2009), providing multiple means of representation, action and expression, and engagement. Finally, I explain how these art integrated learning contexts, which provide much recognition, re-humanize education by facilitating positive self-beliefs and resiliency which motivates students to be vulnerable and curious throughout the creative learning process; thus, increasing student behavioral and cognitive engagement leading to school success. In addition, I reflect on my own research that helped to shape the development and refinement of AIEM and discuss limitations.

Introduction

In the USA, the President's Committee on Arts and the Humanities (PCAH) spent 18 months researching ways to expand arts opportunities to underserved populations and made five recommendations based upon their findings. Two of the five recommendations that the committee made were to "develop the field of arts integration," and to "widen the focus of evidence gathering about arts education

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(Dwyer, 2011)." This chapter attempts to apply these recommendations by explaining a framework that more broadly examines the impact of arts integration, and thus provides a better understanding of why arts integration seems to impact all students, with an even more significant impact on culturally diverse students (Dwyer, 2011).

In an era where students, teachers, schools, districts, states, and countries are constantly compared and ranked, a culture of blame and shame has become all too common in educational systems everywhere. According to Brown (2012), learning is dehumanized when people only see what students produce or how they perform and causes students to disengage. In sharing results from her own research, Brown (2012) reported that 85% of the men and women interviewed identified a school incident from their childhood that was so shaming, and it changed the way they thought of themselves as learners. She further reported that in half of the childhood school incidents, the participants were told or shown that they were not good writers, artists, musicians, dancers, or creative in something. Comparison kills creativity and joy (Brown, 2010), and yet it occurs in both the arts and academics. To cultivate creativity, we must let go of comparison and choose to be curious, vulnerable, and open to uncertainty (Brown, 2015).

Arts integration has been defined as, "…an approach to teaching in which students construct and demonstrate understanding through an art form. Students engage in a creative process which connects an art form and another subject area and meets evolving objectives in both (Silverstein & Layne, 2010, p. 1)." Marshall (2014) claims that the focus of art integration is on how knowledge is acquired and how deeply it is understood by fostering conceptual/procedural skills and metacognition. According to Marshall (2014), it is a transdisciplinary practice "… that rises above disciplines and dissolves their boundaries to create a new social and cognitive space," (p. 106) which Bresler describes as "transformative practice zones (Bresler, 2002, p. 35)."

Arts integrated learning contexts cultivate environments where the emphasis is on the process, and not the perfection of the product. It is a learning environment where all children experience sharing their art and vulnerable feelings while they explain how/why they used specific art elements/skills to communicate their academic concepts/skills, and where they also experience being audience members who are curious to understand the artist's choices to communicate his/her intended meaning. Brown (2015) states that feeling vulnerable is at the core of difficult emotions like fear, grief, and disappointment; but it is also the birthplace of love, belonging, joy, empathy, innovation, trust, and creativity.

In this chapter, I propose a conceptual framework to explain how arts integration facilitates positive student outcomes for culturally diverse students. I use the term *culturally diverse* to distinguish students who come to school with different levels of school readiness due to diverse experiences and abilities. Culturally diverse students could include students who have a disability are English language learners, low socioeconomic students, ethnic minority students, as well as other marginalized student populations. Since culturally diverse students often experience school *failure* more than their peers, they can have lower self-efficacy, lower resilience,

and lower levels of engagement in school. An understanding of how arts integration may be used to transform learning contexts and engage culturally diverse students may provide an important framework for future research and school reform initiatives in countries where diverse students have less opportunity to learn.

Review of the Literature on Academic Achievement and Art Education Internationally

In 2007, the Organization for Economic Co-operation and Development (OECD) reported that out of the thirty industrialized nations that constitute the OECD, the USA was one of the eight other countries that had the largest achievement gap between students of different socioeconomic backgrounds. Additionally, they reported that it was one of the top seven countries where a student's socioeconomic background strongly predicted student achievement (Organisation for Economic Co-operation and Development, 2007). More recently, the 2012 Programme for International Student Assessment (PISA) results in mathematics depict that the US average in PISA mathematics is below the OECD average and further below the averages of five comparison countries including Canada, Germany, Korea, the Netherlands, and Shanghai, China (Krawitz, Achmetli, Blum, Vogel, & Besser, 2016). Furthermore, the US students had strengths in less cognitively demanding skills and abilities, and weaknesses in demanding skills and abilities "…such as taking real world situations seriously, transferring them into mathematical terms and interpreting mathematical aspects in real world problems (Krawitz, et al., 2016, p. 44)."

After analyzing the 2012 PISA outcomes, Schmidt and Burroughs (2015) reported that in every participating PISA country, poorer students had less *opportunity to learn* (OTL) mathematics content, noting that about 80% of the variation in OTL among OECD countries was within schools and not between schools. In the PISA 2012 study, OTL is defined as "…familiarity with and exposure to a small set of key mathematics topics as well as real-world applications and word problems (Schmidt & Burroughs, 2015, p. 26)." The USA had the 12th largest variation in OTL mathematics content among the 33 OECD countries, and 90% of the variation in OTL was within the school. This ranks the USA seventh among OECD countries in OTL and tenth for inequality in student outcomes (Schmidt & Burroughs, 2015).

In comparing arts education with thirty-eight United Nations Educational, Scientific and Cultural Organization (UNESCO) countries and two international arts organizations, Bamford (2009) discovered that the countries outperforming the USA on the 2011 TIMSS and PIRLS (Singapore, Hong Kong, Taiwan, Japan, Korea, Russia, and Finland) had high-quality arts-rich programs which surpassed the USA. Bamford further emphasized the interdependence of education in the arts (a specialist approach) and education through the arts (arts integration) and the need

for these to be carried out in high-quality programs working together in order of the full benefits of arts education to be realized. A UNESCO report found that there is a strong national curricular emphasis on the arts and on integrating the arts into non-arts subjects in Asian and Pacific countries, as compared to the Arab states and most European and North American countries, where the arts are mostly taught as stand-alone subjects (United Nations Educational, Scientific and Cultural Organization, 2010).

In the USA, the availability of arts education has decreased, especially for economically disadvantaged and minority students. A US Government Accountability Office (GAO) report revealed that schools with higher percentages of low-income or minority students had larger average reductions in time spent on the arts than did schools with low percentages of these students (Parsad & Spiegelman, 2012). Sadly, students who may benefit the most from arts involvement are experiencing it the least. However, with the new 2015 educational policy (Every Student Succeeds Act) in the USA, states and districts have an opportunity to increase arts education and arts integration for these students.

In a review of arts education globally, Barton and Baguely (2017) noted that due to the increased emphasis on academic standards and testing and a de-emphasis on creativity and imagination in school systems, "…education dislocates many children from who they are and who they could become (p. 27)." They further state the need for prosumer-oriented engagement and learning, which involves creative forms of knowledge construction, as opposed to transmission-oriented knowledge, which is more easily measured in high stakes tests. Recently in the USA, with the passing of Every Student Succeeds Act (ESSA) in December of 2015, there is a window of opportunity to prioritize the arts for cultural diverse and marginalized populations and create prosumer-oriented engagement and learning contexts. With ESSA, state and district leaders have increased flexibility to best meet the needs of all students to experience a *well-rounded education* (Jones, 2017). This new requirement to provide a *well-rounded education* includes the arts. Specifically, the funds for programs of Title 1, Part A of ESSA, are to support students who are academically at risk to help close the achievement gap in schools where at least 40% of their students are identified low socioeconomic students. States must include at least one indicator of school quality or student success not including student achievement, graduation rates and English proficiency, and these could include arts-related indicators for school quality or student success indicators.

Review of the Literature on Arts and Culturally Diverse Students

> Educational equity is provided not merely by opening the doors of the school to the child but by providing opportunities to the child to succeed once he or she arrives.
>
> (Eisner, 1997, p. 352)

Research suggests that arts experiences and arts integration increase the success of culturally diverse students. Catterall (2009) analyzed longitudinal data and found that low-income students who were highly engaged in the arts were twice as likely as their peers to earn a bachelor's degree. Additionally, these students participated more in volunteerism, voting and had better paying jobs with more responsibility, more promotion opportunity, and better employee satisfaction. Self-efficacy, self-esteem, and personal identity have been found to increase when students are engaged in arts integrated learning experiences (Bassett, 2010; Durham, 2010; Feilen, 2009; Folkes-Bryant, 2008; Jacobs, 2005; Lorimer, 2011; Ponder & Kissinger, 2009; Prager, 2006; Smith & McKnight, 2009). Additionally, studies depict an increase in students' motivation as learning becomes meaningful to them in classrooms where arts integration is occurring (Alabari, Harder, Jarvis, Mogoko, & Munoz, 2009; Chilcoat, 1991; Hoyt, 1992; Moorefield-Lang, 2010; Prager, 2006; Scriven, 2008; Smith & McKnight, 2009; Stevenson & Deasy, 2005). Improvements have been reported in attitudes toward school and specific academic subjects with students experiencing arts integration (Andrews, 1997; Feldman, 2002; Folkes-Bryant, 2008; Kariuki & Honeycutt, 1998; Werner, 2001; Wolf, 1998; Wilhelm, 1995).

Several studies have examined the impact of arts experiences on individual's resiliency. Leseho and Maxwell (2010) found that dance not only increased women's resiliency after experiencing trauma from abuse, relationship breakups, community violence, and loss of self but also helped them to heal by facilitating a connection to the sacred. O'Connor (2001) described after-school programs in Massachusetts to build resiliency in students through the participation in voluntary activity clubs, one of which was an arts club. Pasiali (2012) reviewed literature describing how music therapy fosters resiliency in early childhood. Prescott, Sekendur, Bailey, and Hoshino (2008) conducted a study to examine the effects of art making on the resiliency of homeless youth who attended a drop-in art center. The study found a strong correlation between the youth's attendance at the art center and their life achievements (securing housing, substance cessation, returning to school, employment, taking initiative, social skill development, and art sales). The study also found that the youth valued the role of art (as a savior, as a safe place, as a friend, and as a shaper of identity) in making healthy lifestyle choices such as building connections and personal exploration and growth.

Research since 2012 is also revealing positive gains for culturally diverse students through arts experiences and arts integration. Greenfader and Brouillette (2013) reported statistically significant gains in oral language skills in primary aged students who were English language learners after experiencing arts integrated instruction. Other research (Kraus et al., 2014) has shown that music participation improves the neural processing of speech in at-risk children by strengthening a neural mechanism related to reading and language skills. Russell-Bowie (2013) compared the development of self-concept in children aged 8–12 from diverse social and cultural backgrounds in a low socioeconomic area and found that children who participated in the after-school integrated arts program had considerable gains in general self-concept as compared to students who did not attend the

program. Anderson (2012) conducted a study with the fourth-grade students with learning and/or behavioral challenges at an urban public charter school and found that significant increases in students' written language specificity and productivity were seen after experiencing contextualized dramatic arts activities as compared to decontextualized language arts activities. Finally, Robinson (2013) evaluated 44 studies published between 1995 and 2011 on arts integration with disadvantaged student populations. After evaluating the studies for research design, implementation, and effects, results depicted positive effects and potentially positive effects on disadvantaged students' self-beliefs, engagement, collaboration, cognitive processes, and learning achievement. Disadvantaged students were defined as students who had a disability, who were English language learners, or low socioeconomic students.

The President's Committee on Arts and the Humanities (PCAH) spent 18 months researching ways to expand arts opportunities to underserved populations. They acknowledged that there was a pressing need to "…address the persistent inequities in the distribution of arts education (Dwyer, 2011, p. 11)." The committee further reported that arts integration holds unique potential as a school reform model as it addresses a number of outcomes at the same time (academic, social, teacher efficacy, school climate, etc.) and has the greatest impact on disadvantaged students (Dwyer, 2011). Based on what they learned, they made five recommendations for actions to be taken by a variety of stakeholders: (1) build collaborations among different approaches; (2) develop the field of arts integration; (3) expand in-school opportunities for teaching artists; (4) utilize federal and state policies to reinforce the place of arts in K-12 education; and (5) widen the focus of evidence gathering about arts education (Dwyer, 2011).

Creativity, Curiosity, Vulnerability, and Disruptive Engagement

Disruptive engagement is a term that means to dare to re-humanize education (Brown, 2015). Sir Ken Robinson appeals to leaders to make this shift and replace the outdated idea that human organizations should work like machines (Robinson, 2012). To reignite creativity, innovation, and learning, educational leaders must re-humanize education by understanding how scarcity is affecting the way we lead and teach, learning how to engage with vulnerability, and recognizing and combating shame (Brown, 2015). "Creativity embeds knowledge so that it can become practice. We move what we're learning from our heads to our hearts through our hands (Brown, 2015, p. 7)." However, to cultivate creativity, we must let go of comparison and choose to be curious, vulnerable, and open to uncertainty (Brown, 2015). The proposed Arts Integration Engagement Model attempts to explain how

arts integration can help to re-humanize education by transforming learning environments that motivate students to be vulnerable and curious throughout the creative learning process, increasing resiliency and positive self-beliefs.

Arts Integration Engagement Model

The Arts Integration Engagement Model (AIEM) (Fig. 12.1) provides a conceptual framework to explain why learning through arts integration increases student outcomes for all students, with an even greater impact on culturally diverse students who struggle to achieve school success. Previous research conducted, and arts integration projects I have implemented, in K-12 settings with a majority of culturally diverse students and in a college setting have shaped the development of the AIEM conceptual framework (Robinson, 2012, 2013, 2017, 2018a, b; Robinson & Byrd, 2016). This theoretical framework borrows the concepts from Honneth's theory of recognition (Thomas, 2012), Skinner's self-system model of motivational development (Skinner, Marchand, Furrer, & Kindermann, 2008), and Bandura's concept of self-efficacy (Bandura, 1997). As students are engaged in all phases of the artistic process in environments that provide multiple means of representation, action/expression, and engagement, and provide all three forms of recognition, the fear of failure melts away increasing resilience and facilitating positive self-beliefs. Positive self-beliefs and increased resilience facilitate students' emotional engagement, which bi-directionally influences self-beliefs, resilience, and behavioral engagement. Increased behavioral engagement bi-directionally influences emotional engagement and cognitive engagement, which leads to an increase in
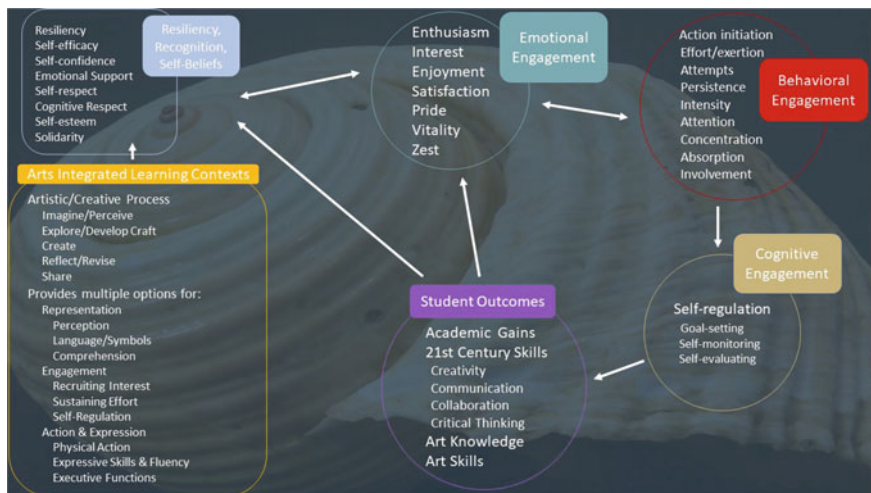

Fig. 12.1 Arts Integration Engagement Model (AIEM)

academic knowledge/skills, art knowledge/skills, and the twenty-first-century skills (communication, collaboration, critical thinking, and creativity), which facilitates the cycle of engagement again.

AIEM: Arts Integration and Universal Design for Learning

Arts integration merges art standards/concepts with academic standards/concepts and allows students to create art products and performances to showcase their learning. For example, a student may choreograph a dance showing understanding of the solar system and an understanding of movement concepts of space, time, force, and flow. Another student may create a visual art product to showcase both an understanding of geometry and elements of art and principles of design. Another student may create a music video explaining and demonstrating math computation skills showing an understanding of how to utilize specific math operations and concepts/skills in music, drama, and digital art.

Through arts integration, learners are engaged in the creative process which offers a universal pathway to learning and naturally aligns with the Universal Design for Learning (UDL) guidelines (CAST, 2009). The UDL guidelines were advocated with the implementation of the Common Core Standards in the USA as a way for teachers to differentiate instruction and create lessons so that all students could be successfully engaged in mastering the standards. Culturally diverse students need learning experiences that are created in alignment with the UDL guidelines. The Center for Applied Special Technology (CAST) discusses UDL in terms of providing multiple means of representation, multiple means of engagement, and multiple means of action and expression (2009). Glass, Myer, and Rose (2013) argue that integration of the arts and UDL is "… a better form of education - full and complex, cognitive and emotional, and rich with culture and human expression" because students are engaged in…"unique and complex content, processes, and thinking habits for valuing, understanding, and making meaning of the world (pp. 116–117)."

Arts integration naturally engages students and recruits their interest as students have many opportunities for individual choice and autonomy with projects that are relevant, authentic, and valuable in a context that minimizes threats and distractions through collaborative artistic creations with peers and through individual artistic expression. My first case study exemplifies this well (Robinson, 2012). More than fifty teachers throughout the state of Florida enrolled in an arts integration master's program I developed, as part of a multi-agency/university collaborative grant, reported consistent findings after implementing arts integrated lessons in their classrooms. Teachers from grades levels across the K-12 levels and visual art and performing art teachers all reported with surprise that their most struggling students who had been so reluctant to engage in learning were now actively involved and even becoming leaders in their small group arts integrated activities and demonstrating increased collaboration and communication with their peers. Many of the

teachers acknowledged that their teaching methods changed from a didactic style to more of a facilitator circulating the class asking questions while students worked in small groups with agreed upon roles, or individually, to create their art project. Teachers also reported on the fun they had at creating and implementing the new arts integrated units and acknowledged they were emphasizing more critical thinking and creative skills which required students' sustained efforts in order to complete them.

To increase students' self-regulation, teachers may provide task analysis sheets to provide chronological steps for the project, aligned to the phases of the creative process, so that groups/individuals self-monitor their progress. Additionally, rubrics, written in student-friendly language, could be provided to clearly identify the academic and art concepts/skills that students are expected to be able to explain when sharing their art. In the pre-kindergarten case study (Robinson & Byrd, 2016), the impact of using rubrics was reported on by the participants. Both the voluntary pre-kindergarten classroom teachers and the special education self-contained classroom teachers begin to implement student self-evaluation of their art integrated products/performances both with and without rubrics. The teachers were trained in developing student task sheets to increase self-monitoring and arts integrated rubrics that would be developmentally appropriate to increase self-evaluation; however, most teachers were only implementing having students self-evaluate with and without rubrics. This was a significant change pre and post as noted from observations triangulated by multiple observers. In fact, the principal reported that the pre-kindergarten teachers were attempting to share with their K-5 teacher colleagues how they were engaging their students in self-reflection as most of the teachers in the school were struggling with best practices of how to engage students in self-reflection. In fact, the increase in student self-regulation was the outcome the principal was most excited about.

Arts integrated learning also offers alternative means for representing information by providing options for perception, language/symbols, and comprehension through the different art forms. In the pre-kindergarten case, visual art teaching artists had developed a science and literacy arts integrated unit and would model one day and support teachers the other day in leading the planned activities using a gradual release model. This model was selected to ensure by the end of the implementation, the classroom teachers were planning and leading the activities, and the teaching artists were just assisting. The science units were planned to allow for multiple means of representing information by incorporating fiction and non-fiction children's books, which were provided to the teachers and selected to match the topic of the lessons, in addition to the multiple ways of representing the science concepts through various art mediums. In another case study (Robinson, 2017), the freshman high school students repeatedly mentioned how learning algebra, global history, English, and Spanish through arts integrated activities made it easier for them to learn the academic content. One example was how in the algebra class several student groups chose to create math music videos where they taught the order of solving algebraic equations as an option for a project. Using art options to represent information provides options to define vocabulary and

symbols, promotes cross-linguistic understanding, and illustrates key concepts non-linguistically. Both the observational data and the student surveys indicated that the freshman students understood how important representation options helped them to comprehend the academic content better.

Finally, arts integration provides flexible options of action and expression by allowing students to learn and show what they know with options. When working on art projects individually, students may select the art form or art medium that they want to communicate with. The teaching artists in the pre-kindergarten case study (Robinson & Byrd, 2016) always provided multiple art mediums and materials to allow students to select from when creating their art. When arts integration is implemented utilizing small group multi-art projects, where students within a group can select different roles or be allowed the choice to join small groups based on their interested art form, flexible options of action and expression are being utilized. In another case study (Robinson, 2018b), most of the K-2nd-grade teachers commented on how powerful embedding multiple options into their arts integrated activities was for increasing student engagement and motivation.

AIEM: Creative/Artistic Process, *Failure* and Resiliency

Rogers (2012) claimed that to develop creativity and innovation, one must promote risk-taking and expect failure. Promoting risk-taking and expecting failure occur naturally as students are engaged in all phases of the artistic/creative process. This process includes interacting phases where each phase is related to every other phase. The phases include the following: (1) imagine, examine, perceive; (2) explore, experiment, and develop craft; (3) create; (4) reflect, access, and revise; and (5) share product with others (Silverstein & Layne, 2010). As students begin to work like an artist, experiencing all the phases of the creative process, they begin to think like an artist. They realize that *failure* is an important part of the creative process where through exploration and reflection, they realize that some of their ideas do not work well. They are motivated to take risks because *failure* provides an opportunity to revise their art before they share their art with others, and it is through this sharing that they are able to communicate their ideas, insights, points of view, and feelings.

Turpin (2008) defined failure as:

> …a meaning that is ascribed to a particular situation or event and, as such, can be positive and negative, rather than necessarily the absence of something. In exploring failure, it is important to distinguish between the situation or event and the ascribed meaning.

Arts integration provides a way for students to experience risk-taking and *failure* as a positive feature and essential phase within the artistic process. Turbin (2008) states "that an individual's evaluation of particular events, situations and outcomes as failure is most likely to be influenced by shared meanings and expectations of success and failure (p. 283)." Pre-service elementary teachers enrolled in an arts

integration and creativity course discussed how their perception of failure had changed as they began to learn and be engaged in all phases of the creative process (Robinson, 2018a). They explained that whether they were creating or viewing art, their shared meanings and experiences with the entire class engaging in the artistic process of imagining, exploring, creating, revising, and sharing their art, empowered them to become comfortable with critiquing their own work and the work of others as part of the natural phases of the artistic process. They also commented on how this collaborative experience helped them to explore revisions or imagine new creations that would communicate their meaning in new ways.

As they take more risks, students develop resiliency. In the college class (Robinson, 2018a), teacher candidates realized that *failure* facilitated another phase of the creative process where they could explore other ideas that were not originally considered. For example, one group mentioned as they were creating a dramatic scene and rehearsing it with their peers; they realized that the background music, the props, or the costumes did not accurately portray the characters as originally planned. This realization motivated them to take risks and embrace uncertainty to discover other options that would best portray what they were trying to communicate. As they moved through the phases of the artistic experience, they realized that it was difficult to predict what would happen, be discovered, or emerge during their creative process. As Brown (2015) would describe it, it facilitates the "rising strong" process, where they lean into the vulnerability of emotion and stand in their truth, where they lean into the initial discomfort of curiosity and creativity, so they can be braver with their lives, and where they develop the courage to rumble with their story.

Grafton, Gillespie, and Henderson (2010) defined resilience as an innate life force present to varying degrees in different individuals and exemplified by the presence of specific characteristics that when applied allow one to cope with, grow from, and grow as a result of stress or adversity. They also felt that this innate resiliency could be developed through transformational practices, education, and environmental support. Baxley and Living Stage Theatre Co. (1993) stresses the importance of characteristics of the environment in developing resiliency in youth. Discussing how arts integrated learning environments could facilitate the characteristics needed to develop resiliency or to engage in the "rising strong" process (Brown, 2015), pre-service teachers (Robinson, 2018a) explained how the following characteristics were developed through arts integrated learning environments:

(1) It increases students' courage to be imperfect and tell the story of who they are with their whole heart when they share their visual or performing art and explain its message.
(2) It increases students' ability to show compassion to themselves and others as everyone in the arts integrated environment is experiencing the vulnerability of creating and sharing their art and explaining personal/cultural influences that have shaped their art.

(3) It increases authenticity by facilitating environments where children let go of who they think they should be and be who they are because the focus is on the process of creating their art and its meaning, and not on the perfection of the final product.

(4) It provides students experiences so they understand that vulnerability is necessary for true connection to happen, and when true connection occurs there is an awareness that what one does has an impact on others.

AIEM: Self-beliefs and Recognition

Self-beliefs are constructed over time in response to interactions with the social context and are organized around people's basic needs for competence, autonomy, and relatedness (Skinner et al., 2008). In my proposed model (Fig. 12.1), beliefs about the self are distinguished from engagement. Rather, self-beliefs provide a specific mediated pathway between arts integrated learning contexts and classroom engagement, as features of the arts integrated context influence how individuals feel about themselves.

Self-efficacy is believed to have a strong influence on performance as it affects the choice of activities, the amount of effort exercised, and perseverance in the face of difficulty (Bandura, 1997). People obtain self-efficacy information in four ways: enactive mastery (their task performance), vicarious experiences, verbal persuasion, and their physiological reactions or states (Margolis & McCabe, 2006). Observations conducted by multiple observers in the pre-kindergarten case study (Robinson & Byrd, 2016) depicted many examples of enactive mastery as many of the children were evaluating, refining, and discussing their art. Additionally, in the K-2nd-grade case study (Robinson, 2018b), the observations and focus group data provided multiple examples of students who were initially hesitant to perform their art, but they would borrow ideas and skills from their peers (vicarious experiences) and their self-efficacy would greatly increase. In one example of verbal persuasion, a teacher (Robinson, 2018b) shared how a shy student who did not engage much with his peers became highly engaged and very happy after another peer selected him to be in their group and acknowledged his great art abilities.

Applying Honneth's Recognition theory to teaching pedagogy, Thomas (2012) describes the three types of recognition that children need to experience in classrooms. Thomas (2012) claims that children must have a sense of warmth and affection to engage fully; that they must be respected as rights holders to participate equally; and that there must be mutual esteem, solidarity, and a sense of shared purpose to have a real impact. The freshman students (Robinson, 2017) noted this increase in solidarity as coded from surveys: (1) self-awareness of personal behavior in group; (2) group work challenging and time intense but beneficial; (3) increase in communication and leadership skills; and (4) increase in overall ability to work together as a group. In the K-2nd study (Robinson, 2018b),

observations and teacher reports indicated that students were providing more emotional support to each other and creating a community as demonstrated by behaviors of talking and helping students they had avoided in the past. Additionally, the teachers who were implementing group arts integrated projects, reported that the students were beginning to recognize that each group member had a relevant part in contributing to the group final art product or performance and were demonstrating a sense of autonomy within their groups.

AIEM: Emotional, Behavioral, and Cognitive Engagement

As students develop a sense of competence, autonomy, and relatedness with corresponding increases in their self-confidence, self-efficacy, self-respect, and self-esteem, a change occurs in their motivation and emotional engagement. In the freshman study (Robinson, 2017), 82% of the freshman students survey responses indicated that they were emotionally engaged with the arts integrated projects. Comments indicated that they felt it was fun, made learning easier and more enjoyable, but they had to be dedicated because it took time.

Emotional engagement facilitates behavioral engagement and cognitive engagement. The freshman students' comments revealed that behavioral and cognitive engagement was the second highest outcome mentioned after gains in learning. Some of the codes identified in their responses included the following: (1) increased comprehension when entertained; (2) increased visuals were helpful; (3) easier to learn through the arts and when creating own work; (4) awareness of preferred learning styles and learning challenges; (5) increased organizational and study skills; and (6) increased attention and memory. The fact that behavioral engagement and cognitive engagement were so frequently mentioned can be understood as students became important contributors to their group arts integrated projects and experienced feeling valuable to their peers. This could increase their behavioral and cognitive engagement as they select more challenging activities and utilize more self-regulation behaviors such as goal setting, self-monitoring, and self-evaluation.

Applying the AIEM

In my research evaluation study (Robinson, 2013), I evaluated 44 studies published between 1995 and 2011 examining arts integration with disadvantaged student populations on academic outcomes. After reviewing the studies, I noted several limitations including the following: (1) Many studies did not report an effect size and none reported the confidence intervals; (2) Only six of the studies used random sampling; (3) Only ten of the studies had a moderately strong or strong causal design; (4) Only one study out of the 19 quantitative studies utilized HLM

modeling; (5) Insufficient information was provided about the interventionist; (6) Very few studies operationally defined the components of the intervention in the form of a checklist to assess implementation fidelity; and (7) Very few of the qualitative studies included a summary of the findings and/or included graphics to display their findings.

Reflecting on my research projects and evaluation reports (Robinson, 2012, 2013, 2017, 2018a, b; Robinson and Byrd, 2016), the following strengths and limitations were noted and final revisions were made to the AIEM. Some strengths included: (1) development and utilization of an arts integration implementation fidelity checklist that observers utilized to rate the operationally defined components of the arts integration; (2) mixed methodology utilized; (3) clear description of the arts integration training provided to the interventionist; and (4) utilization of the Classroom Assessment Scoring System (CLASS) to measure the nature and quality of effective teacher–child interactions across three broad domains of emotional support, classroom organization, and instructional support. Limitations of my research include the following: (1) small sample sizes; (2) more quantitative measurements needed to assess all components of the model; (3) random sampling was not possible; (4) HLM model was not possible.

In order to address the limitations of my previous studies, the following revisions would strengthen future studies. First, mixed methods studies using hierarchical linear modeling (HLM) that report on effect sizes and confidence intervals should be employed to provide the best mix of rich, thick descriptions and quantifiable data that reflects the nested relationships of students within different classes, different schools, different regions/states, and different countries. In addition, future studies could assess the implementation fidelity at various points during the intervention with the components operationally defined in the form of a checklist aligned to the phases of the artistic/creative process. Additionally, to measure the emotional and behavioral engagement of students in future studies, I would like to also utilize the rating scale by Skinner, Kindermann, and Furrer (2009) to provide for triangulation with the qualitative data findings. Finally, I would like to transform the teacher rating scale for twenty-first-century skills (Cunnington, Harnett, Reeder, & Brown, 2010) utilized in one of my prior studies into a student self-rating scale and a classroom observation checklist to strengthen these findings.

In summary, in order to explore fully, all the constructs identified in the Arts Integration Engagement Model (AIEM), both qualitative and quantitative measures should be utilized to assess as many constructs as possible and larger sample sizes should be obtained so that HLM could be utilized for data analysis. As the uniqueness of the arts integrated learning context is the building block upon which this model rests, it is very important to fully measure the constructs and use the analyses that will reflect the nested relationship of students.

Conclusion

Nogeura (2010) claims that a new vision is needed for school reform. He states that:

> …one rooted in the recognition that schools must provide equal opportunity for all children to learn if the schools are to fulfill their vital role as the cornerstone of our democracy. When policy-makers are unclear about why their policies do not result in improvement and are even less clear about what must be done differently to prevent failure in the future, closing schools is little more than a punitive shell game (p. 11).

He cites over 40 years of research depicting the need for an educational policy that is created in concert with health reform, poverty alleviation initiatives, and economic development in order to address the roots of failure in the most depressed areas. He further emphasizes the importance of designing and implementing these reforms with parents, teachers, local leaders, and students, with an understanding of how the reforms must be coordinated with other social policy. Noguera (2010) challenges the administration to embrace a broader and bolder vision of reform and to devise policies to back it up. He stresses the importance of the historic purpose of public schools, to renew and invigorate American democracy by encouraging critical thinking and civic engagement and emphasizes that policy must "…encourage students and teachers to utilize their talent, creativity and imagination rather than allowing the school curriculum to be reduced to preparing students to perform on standardized tests (p. 14)."

It is time to rethink the past school reform efforts and envision new possibilities where art education and arts integration are deemed vital to reframing school failure and the success of culturally diverse students. With the passing of the 2015 ESSA legislation, the USA has an opportunity to focus on providing equal opportunity to learn (OTL) for culturally diverse students using arts integration. The framework proposed in this chapter, the Arts Integration Engagement Model (AIEM), explains how arts integrated learning contexts can increase the opportunity to learn for culturally diverse students and increase student outcomes. This model addresses the call by Gadsden (2008) to re-conceptualize the effect of the arts on student achievement as "the broad and nuanced learning and teaching opportunities that prepare students to think broadly while honing in on the foundational abilities of reading, writing, and arithmetic and the thinking, social, and emotional dispositions that allow for learning (Ibid.)."

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Chapter 13
The Role of Music-Based Activities in Fostering Well-Being of Adolescents: Insights from a Decade of Research (2008–2018)

Imelda S. Caleon

Abstract The aim of this review was to identify underpinning mechanisms and outcomes featured in music-based intervention activities aiming to foster well-being of adolescents. Twenty-seven databases were searched spanning 10 years (2008–2018), with 13 articles meeting the inclusion criteria. Application of thematic analysis resulted in three key themes: (1) *music-based activities as catalyst for relationship building*, (2) *music-based activities as means for self-expression and self-regulation* and (3) *music-based activities as resource for self-transformation*. These themes were deemed to be underpinned by the promotion of the satisfaction of students' basic psychological needs of competence, relatedness and autonomy. Suggestions for further studies are presented.

Introduction

Well-being refers to "optimal psychological functioning and experience" (Ryan & Deci, 2001, p. 141). Well-being may be grouped into three areas: social, emotional and psychological (Robitschek & Keyes, 2009). Social well-being focuses on the formation and maintenance of positive relationships. Emotional well-being, which can also be termed as subjective well-being, covers two key components: satisfaction with life and the predominance of positive affect over negative affect (Diener, 1984). Psychological well-being includes the areas of self-acceptance, purpose in life, mastery and autonomy (Ryff, 2014).[1]

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[1]Psychological well-being may also include positive relationships (Ryff, 2014), however to simplify the presentation of the review, social well-being was considered as separate from psychological well-being.

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Cultivation of well-being is especially important for adolescents who face high doses of stress or risk factors. As adolescents struggle to deal with the significant physiological, social and psychological changes that occur simultaneously (Akos, 2002; Brown & Larson, 2009; Thompson & Tawell, 2017; Wallace-DiGarbo, 2006), they become more vulnerable to internalizing and externalizing problems. During the adolescent stage, relationships tend to change, with parent–child relationship deteriorating as youngsters struggle to attain autonomy from their parents. Adolescents tend to turn more towards their peers for support (Collins, Gleason, & Sesma, 1997). While some of them tend to experience frequent conflicts with their peers, others struggle to be integrated into social networks (Brown & Larson, 2009). While they experience changes and challenges, some of them also experience feelings of helplessness and fear or loss of control over their lives (Cheong-Clinch, 2009). They may also find difficulties and limited opportunities to express their emotions or develop low self-awareness, self-image and self-esteem, all of which may undermine their social and emotional well-being (Cheong-Clinch, 2009). Exposure to high levels of these risk factors, if not alleviated or addressed, may generate long-term personal, social and economic impact. The frequency of mental health problems among adolescents has grown dramatically (Bor, Dean, Najman, & Hayatbakhsh, 2014). The period of adolescence can be an ideal period to implement preventive interventions to pre-empt the onset of psychological and emotional problems because it is during this period where identity formation takes a dramatic surge (Gold, Saarikallio, Crooke, & McFerran, 2017). Music interventions have been found to be effective in reducing symptoms and improving functioning of adults with mental health problems, but scant literature focused on their effects on the well-being of adolescents (see Gold et al., 2017; Wood, Ivery, Donovan, & Lambin, 2013, for a review). It will be presumptuous to assume that research findings linked with adult populations will also be applicable to young adults. Noting how well-being during the earlier stages of development has significant influence on an individual's future life outcomes (Smith & Smith, 2010), it is imperative to focus on how well-being of young people can be cultivated. This chapter presents an overview of a decade of intervention research on the role and effectiveness of music-based activities in promoting the well-being of adolescents.

Music and Well-Being of Adolescents

Music can be an important resource for young people as they not only have a natural affinity to music, which starts early in life (Weitz, 1996), but their psychosocial development is also tied to music (Laiho, 2004). The mother-infant communication, which helps mothers to be attuned to the emotions of their infant children and helps these children to learn to communicate, is considered by many as highly musical in nature (Harvey, 2018). Music is a key aspect in youth's overall identity (North & Hargreaves, 1999), as the sounds and words of music represent thoughts and emotions of the youth (Laiho, 2004). More specifically, common

issues, such as sexuality, identity, emotions and social conflict, that adolescents face are usually reflected in musical forms that appeal to the youth, such as popular music (Christenson & Roberts, 1998). Music listening seems to be most prevalent (Holbrook & Schindler, 1989) and most relevant (Laiho, 2004) during the period of adolescence. Studies show that young people listen to music more than engage in other youth-oriented leisure activities, such as watching television (Larson, 1995 in Cheong-Clinch, 2009). Playing a key role in the lives and identities of adolescents and forming a strong link to their psychosocial development, music has a strong potential to influence their development, function as a context for meaningful interactions, and serve as a promising component of interventions that may appeal to this group (Gold et al., 2017).

Drawing upon studies that involved adult populations, the potential mechanisms by which music-based interventions can foster the well-being of adolescents can be conceptualized. As a means to improve social well-being, music can be effective in forming and strengthening social bonds as it can serve as an alternative to the verbal mode of communication. Music making can benefit adolescents' social development as it can facilitate group processes such as reciprocal interaction, leadership, sharing and taking turns (Bonde & Wigram, 2002). Music-based activities that do not require specific entry skills can be effective in helping socially alienated individuals to communicate and integrate with a group through music (Kalani, 2005). In terms of promoting emotional and psychological well-being, music activities can provide an enjoyable experience for participants and are potentially effective in ameliorating stress (Bittman et al., 2005; Gabrielsson, 2011). Group music making can reverse multiple components of human stress response on the genomic level (Bittman et al., 2005). Providing safe spaces for self-expression, exploration and regulation; offering alternative means for communication; and sharing of creative experiences can serve as mechanisms (Ryan & Deci, 2001) by which well-being can be cultivated, such as through music activities, for this age group.

This review has two main objectives: (1) to examine the recent available empirical evidence into the effectiveness of music-based intervention programmes or activities designed to promote physical, mental and emotional well-being outcomes among adolescent populations and (2) to ascertain if the aforementioned mechanisms operate and if other mechanisms are involved when music-based interventions are implemented in such populations. The review also sought to generate insights on the current status of research in this area and identify potential gaps and pathways for future research.

Selection and Review of Articles

Using EBSCOhost database, which includes 27 research databases, the following keywords were used to identify the articles to be reviewed: "music, music expression, music appreciation or drumming", "well-being, happiness or flourishing" and "teens, teenagers, adolescents, or young adults". Only scholarly peer

reviewed articles published from 2008 to 2018 were included; book reviews, theses and dissertations were excluded. These search criteria yielded 353 articles which were reduced to 253 after duplications were removed. The abstracts of each of the 253 articles were scrutinized and those which did not fit the following criteria were excluded: involved samples of adolescents or young adults (12–19 years old); featured music-based intervention activities such as listening to music, singing, dancing or playing musical instruments; and examined the effects of such activities on the psychological, social and emotional well-being of the subjects. The articles selected utilized any of the following: experimental trials (randomized or non-randomized), qualitative approaches (i.e. case studies, phenomenography, ethnography grounded theory, action research) and mixed methods designs. After applying all of the stated inclusion and exclusion criteria, 13 articles[2] were retained for the systematic review. Although small in number, the articles included in this review provided valuable insights into the viability of music-based interventions in promoting the well-being of school-aged youth—a group that is particularly in need of and likely to be benefitted by interventions of such nature to be able to effectively navigate a critical developmental stage. It is, however, worth noting that for systematic reviews focusing on specific populations, the inclusion of a relatively small number of studies is not uncommon (see reviews conducted by Tyrer & Fazel, 2014; Henderson, Cain, Istvandity, & Lakhani, 2017).

The details of the articles reviewed are shown in Table 13.1 and Table 13.2. The studies were varied in terms of design, data sources, settings, samples and facilitators. The majority of the studies followed a qualitative approach; four used quantitative designs (A1, A7, A12, and A13) and one followed a mixed methods design (A8). The qualitative studies mainly utilized interviews, observations and videotapes of group activities; the quantitative studies largely relied on self-reports of youth participants, but at times collected responses from parents (A1) or measured physiological data of participants (A12). The studies were conducted mostly in Australia; with four studies conducted in other countries, including Canada (A1), Hong Kong (A4), Northern Ireland (A13), South Korea (A12), South Africa (A6) and the UK (A5). The studies were conducted in five types of setting: health or clinical (A1 and A13), regular school (A7, A8 and A11), special education (A2), laboratory (A12) and youth centres (A3, A4, A5, A6, A10 and A13). Most of the studies involved socially and emotionally at-risk youth (A2, A3, A4, A5, A6, A7, A8, A10, and A13); a few of the studies focused on the members of minority communities (A9) or mainstream students (A11 and A12). The facilitators of the intervention were music therapists (A1, A2, A4, A7 and A13), music teachers (A3 and A11), university staff members (A5 and A9), researchers (A6 and A12), university students (A5, A8 and A9), musician (A10) or volunteers with unspecified profile (A8 and A9).

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[2]Another study that met the inclusion criteria was identified but was excluded in the final review as it focused on movements associated with dancing rather than on the music that accompanied the dance.

Table 13.1 Overview of 13 studies that focused on music-based interventions to promote well-being of adolescents (2008–2018)

Code	Article	Sample	Context	Methodology	Mode of delivery	Data sources	Findings	Limitations
A1	Barrera, Rykov, and Doyle (2002)	Preschool (n = 16) and school-aged (n = 16) children, adolescents (n = 16) with cancer Parents and family members	Health setting (urban hospital) in Canada	Quantitative: Pretest-posttest single group design	Individual (in the presence of family members)	Self-report and parent report of pain and effect of music Parent reports of play performance Measurement done before and after the programme	Improved positive affect or mood during painful situation Increased play activity	No control group; duration varied
A2	McFerran and Shoemark (2013)	One 16-year-old male with profound intellectual disabilities disorder	Special education context, Australia	Case study	Individual	Videos of sessions	Observed engagement and positive relationship with therapist; smiling of subject	Focused on one subject; cannot generalize
A3	Barrett and Baker (2012)	22 students (14–18 years old), mostly male in juvenile detention centres and had low literacy levels	Juvenile detention centre in Australia	Case study	Individual and group	Semi-structured interviews and observations	Re-definition of self Increased musical understanding, positive social behaviour and relationships with others, self-esteem, capacity to work with others, enjoyment of learning	Varied duration of intervention

Table 13.1 (continued)

Code	Article	Sample	Context	Methodology	Mode of delivery	Data sources	Findings	Limitations
A4	Cheong-Clinch (2009)	7 students (15–17 years old) who were newly arrived immigrants and refugees from various African countries	Language high school in Australia	Qualitative	Group	Semi-structured interviews and observations	Increased affect, self-esteem, and socio-cognitive functioning, Positive relationships/interactions with peers and adults Development of language and communication skills	Data analysis and data collection appear to be not systematic
		10 male students (13–18 years old) with learning difficulties	Non-government youth foundation in Hong Kong		Group	Observations	Increased affect, self-esteem, socio-cognitive functioning,	
A5	Clennon and Boehm (2014)	55 young people with average age of 13 years; 5% of group aged between 16 and 18 years	Youth club in the United Kingdom Youth club in the United Kingdom	Grounded theory Case study ethnography	Group	Flip charts, Facebook group pages, session diaries, photographic artefacts; videos of presentations, interviews Self-report on emotional awareness, self-esteem, self-concept; and anger management strategies	Greater creative engagement with heritage Enhanced self-esteem, and self-concept; developed anger management strategies Enhanced mood	Cannot isolate the effects of programmes from external factors; reliance on self-reports for well-being outcomes; no baseline measure of well-being, change based on self-reports)
		23 young people whose average age was 12 years with 30% of group aged 16–18 years, all of whom came from disadvantaged backgrounds						

Table 13.1 (continued)

Code	Article	Sample	Context	Methodology	Mode of delivery	Data sources	Findings	Limitations
A6	Flores, van Niekerk, and le Roux (2016)	16 children and adolescents (7–12 years old) with high levels of depression, anxiety, anger and/or difficulties with social interaction	Non-government residential care in South Africa	Collective case study	Group	Semi-structured interviews and focused observations	Advances in positive affect, emotional regulation and playfulness. Enhanced self-awareness, sense of self, self-expression, social interaction	Wide-ranging transfer may not have occurred due to the relatively short duration of the project; baseline information on well-being was not measured (just based on observation)
A7	Gold et al. (2017)	100 students (13–25 years, Year 8 and 9 students) with self-reported unhealthy music use (inability to feel better after listening to music	Schools in Australia	Randomized controlled trial (two groups)	Group	Self-report measures of well-being, depressive symptoms; measured before and after the intervention	Improved psychosocial well-being and reduced depressive symptoms. Younger participants benefited more from group music making while older participants benefited more from self-directed music learning	Did not involve group with no treatment
A8	Wood et al. (2013)	180 students (mix of primary and secondary students; age not specified) often disengaged and struggled in relationships	Schools in Australia	Mixed methods; single group pretest-posttest design	Group	Self-report on self-esteem. Feedback questionnaire on enjoyment and learning during the programme. Information on students' absenteeism, and behaviour incidents from school records	Improvement in self-esteem, general mood, emotional control, focused on relationship with peers and adults. More positive outlook about school	No control group

Table 13.1 (continued)

Code	Article	Sample	Context	Methodology	Mode of delivery	Data sources	Findings	Limitations
						Teacher perception of students' change in self-esteem and relationships		
A9	Anthony, Weston, and Vallen (2018)	One university staff and three university students Teenagers in a remote aboriginal community (number not specified)	Remote communities in Australia	Case study	Group	Interviews with staff and participants	Development of positive relationships between participants and community members Sense of achievement	Duration of the programme not clearly specified; data collection and analysis not systematic; no baseline measures
A10	Baker, Jeanneret, and Clarkson (2018)	85 young people (12–19 years) not fitting well within their school or were home schooled with low self-esteem and social connectedness	Community Hall in Victoria, Australia	Ethnography	Group	Video footage, ethnographic field notes and artefacts	Feelings of safety and enjoyment Increased positive verbal and non-verbal interactions Participants are more connected, appear confident and proud of achievements	No baseline measures
A11	Bunard and Dragovic (2015)	Five students (age not specified) with one teacher and one former student teacher	State high School in Australia	Case study	Individual and group	Semi-structured interviews, videotaped rehearsals, reflection journals	Progress from individual engagement to group engagement Transformative experience where pupils feel connected	Cannot isolate the effect of the programme from external factors; effects on well-being not explicitly assessed

Table 13.1 (continued)

Code	Article	Sample	Context	Methodology	Mode of delivery	Data sources	Findings	Limitations
A12	Lee, Jeong, Yim, and Jeon (2016)	64 university students (19 years old)	University in South Korea; laboratory setting	Randomized controlled trial (2 groups)	Group	Stress was artificially induced; measured pulse rate and blood pressure of groups; measured self-reported stress	Reduced mental stress (lower blood pressure and pulse for the group that listened to music and compared to the group that rested	Too short duration, need to check if results can happen in non-laboratory setting
A13	Porter et al. (2017)	251 children and adolescents (8–16 years old) with social, emotional, behavioural and developmental difficulties	Child and adolescent mental health care facilities in Northern Ireland; Clinical setting	Randomized controlled trial	Individual	Compared self-reports of communication skill, self-esteem, and depressive symptoms, Social functioning and family functioning measures completed by parents Assessment done before and after intervention	Improvement in communication, social functioning, self-esteem, family functioning Reduced depression	High dropout rate; cannot rule out the effects due to additional attention of therapist; outcome measures based on child and parent reports

Table 13.2 Description of activities featured in 13 that music-based intervention studies aiming to promote well-being of adolescents (2008–2018)

Article code	Article	Description of activities
A1	Barrera et al. (2002)	Activities: Therapist interacts with subject engaged in music listening and generation Materials: guitar, electronic keyboard, Omnichord, percussion instruments, songbook, pre-recorded music, tape recorder Duration: 1–3 (varied depending on schedule of cancer treatment) Facilitator: music therapist
A2	McFerran and Shoemark (2013)	Activities: Therapist and subject interact and play music alternatively; therapist takes responsibility for structure; subject improvises and initiates music generation; therapist sometimes initiated the music generation but often follows the lead of subject Materials: drum, guitar, microphone Duration: 10 weeks of individual music therapy Facilitator: music therapist
A3	Barrett and Baker (2012)	Activities: Subjects worked individually and in groups to learn how to play musical instruments and engaged in songwriting Materials: guitar, song book Duration: weekly one-hour sessions; varied in duration (1–5 months) Facilitator: music teacher from foundation
A4	Cheong-Clinch (2009)	Activities in Programme 1: introducing a new song (which was self-selected) to be sung and learned; listening to music and singing known songs; discussing the singer/band and the lyrics of known and unknown songs; and writing the lyrics of the new song Materials: selected music Duration: weekly one-hour sessions, 6–10 weeks, Facilitator: music therapist Activities in Programme 2: selecting known songs and visual images to depict the mood or content of that particular song or self; and organizing the sequence of the images into an audio-visual compilation, interspersed with verbal discussion of the composition which was done in pairs or groups. Materials: popular film, music and images Duration: one-hour session per day for five consecutive days Facilitator: music therapist
A5	Clennon and Boehm (2014)	Activities Programme 1: researching about heritage, writing of heritage-themed raps and drama sessions Materials: Duration: weekly over one year Facilitator: Workshop leader (not clearly described)

Table 13.2 (continued)

Article code	Article	Description of activities
		Activities Programme 2: group songwriting focused on history, writing screenplay of own body rhythms, table top drumming, and clapping; peer mentoring Materials: ukulele Duration: weekly over one year Facilitator: Workshop leader (university students)
A6	Flores et al. (2016)	Activities: commence with relatively simple rhythmic activities and become progressively more challenging Materials: drums Duration: 45 min per week over 4 months Facilitator: author/researcher (with background in music education)
A7	Gold et al. (2017)	Activities of Group 1: group music making (GMM) involved group improvization to share present mood and encourage verbal reflection on the meaning of music making; bring recorded song and explain importance, songwriting, creation of playlist to foster listening habits Materials: Duration: 6 weeks, weekly Facilitator: music therapist (not described) Activities of Group 2: self-directed music learning (SDML) involved downloading of preferred music and spending time to listen to music that makes subjects feel better Materials: Duration: 6 weeks, weekly (number of hours not specified) Facilitator: music therapist (not described)
A8	Wood et al. (2013)	Activities: participants forming a "drum circle"; programme incorporates themes, discussions and drumming analogies relating to, self-expression, communication, emotions and feelings, self-worth, problem-solving, confidence and teamwork; the drumming sessions involved discussions with the participants on issues commonly faced by young people, including peer pressure, bullying, dealing with emotions, tolerating diversity and self-identity Materials: drums Duration: 10 weeks, weekly (number of hours not specified) Facilitator: workshop facilitator (not described)
A9	Anthony et al. (2018)	Activities: visit to cultural centre, group activities involving writing, recording and performing music; all underpinned by integrated community music involvement; involves collaboration between subjects, educators and community residents; blends music engagement with youth development Materials: musical instruments recording studio Duration: Five days (number of hours not specified)

(continued)

Table 13.2 (continued)

Article code	Article	Description of activities
		Facilitator: one university staff and three university students
A10	Baker et al. (2018)	Activities: group songwriting process within a therapeutic relationship to address individual or group objectives; participants complete lyrics of prepared songs, performed and recorded the song, and created music video for the song; rotating team leadership; topics of song about issues faced by young people; modelling, scaffolding and providing expert-driven support Materials: recorded song and lyrics, recording studio Duration: 2 days (number of hours not clearly specified, at least 12 h) Facilitator: artist leaders, with support from videographer, choreographer, music producer, youth workers, and teachers
A11	Bunard and Dragovic (2015)	Activities: group music learning activity (intergenerational), which involved participation in decision-making processes of the participants and dual roles (leader and follower)of teachers and learners; improvizations encouraged; songwriting focus on issues faced by young people; one-on-one formal music lessons Materials: percussion instruments, guitar Duration: 14 rehearsals Facilitator: teacher and former student teacher
A12	Lee et al. (2016)	Activity of Experimental Group: listening to music for 20 min Activity of Control Group: resting for 20 min Materials: selected music on MP3 player Duration: 20 min Facilitator: researcher
A13	Porter et al. (2017)	Activity of Experimental Group: usual care plus music-based activities that include improvization which encourages creation of music and sound through voice, instrument or movement, while receiving support and encouragement from therapist; sessions ended with a verbal or musical reflection on the session; Activity of Control Group: usual care Materials: guitar, xylophone, keyboard and drums Duration: 30 min per session over 12 weekly sessions Facilitator: music therapist

The studies identified were read thoroughly with a particular focus on mechanisms and outcomes linked to well-being. Thematic analysis (Braun & Clarke, 2006) was used to identify and code themes systematically. The application of this analytical approach generated three key themes.

Results: Mechanisms and Outcomes of Music-Based Interventions

The review of the articles surfaced three dominant themes on the mechanisms that operated on music-based interventions targeting well-being outcomes: (1) *music-based activities as catalyst for relationship building,* (2) *music-based activities as means for self-expression and self-regulation* and (3) *music-based activities as a resource for self-transformation.* The first theme can be regarded as a key mechanism in facilitating social well-being while the last two are more relevant to psychological and emotional well-being. It needs to be noted that these themes, although qualitatively different, are interconnected and the results of one study can be categorized into more than one theme.

Music-Based Activities as Catalyst for Relationship Building

Music, being inherently social and communicative in nature, has a strong potential to be an effective tool for building social connections. This notion has been well-supported in all except one (A12) of the 13 studies selected for this review. Presenting a context and a common target that is close to the heart and interest of the participants can stimulate collaboration that involved co-construction of ideas and experiences. This is analogous to the sharing of creative experiences, which Ryan and Deci (2001) identified as a mechanism to cultivate well-being through music. In one study (A5), the participants were presented a heritage story and were exposed to relevant cultural sites before they were given the task to compose a song. The participants were given opportunities to harness rich materials for songwriting, thereby making the activity easier and more relevant to them. In another study, as the group members who were initially shy worked towards a common goal (e.g. compose an original song), they were also able to expand their musical interest, enhance their task engagement, develop positive regard towards one another and form a high level of group cohesion (A7).

Music, as another study (A9) reported, provided a "mutual context for engagement" which helped break social barriers, such as between university students and community people, and then supported them to have a "common voice" (p. 80). The notion of social hierarchy was diminished and a sense of being "one of the kids" (p. 80), which is crucial in relationship building, was enhanced. The importance of culture and community engagement, as in A5, was also highlighted. Music also served as a "mutual language" that linked community insiders and outsiders (p. 85). The participants have been found to build positive relationships with their peers, as well as with the intervention facilitators (A3, A4).

Three of the studies reviewed (A4, A5 and A6) also lent support to the view that group music making activities can induce other-awareness and attunement, which are crucial in relationship building. Music-based activities helped the young

participants to develop greater awareness of the emotions, thoughts, attributes and challenges being faced by others (A4, A5 and A6). For example, activities that asked participants to express their own positive qualities through drum beats helped their peers to get to know them better (A6). Rap writing activities focusing on concrete examples illustrating some issues relevant to the participants, such as family abuse, led the participants to develop greater empathy towards victims of abuse (A5). Similarly, as participants paid more attention to their peers as they played together, they became more attuned to and sensitive towards each other's presence (A6).

Music-based activities done in groups also encouraged collaborative efforts of team members. The team members learned about how to wait for their turn and function in synchrony and harmony with the other members of the group (A6). In this sense, participants can be perceived as becoming more able to regulate their social interactions (A4 and A5), with attention and self-control being key to achieving this (A6).

In summary, the young individuals' shared musical experience seems to have provided a socialization opportunity which helped them to be receptive to and interact more positively with their peers.

Music-Based Activities as Means for Self-expression and Self-regulation

The results of five studies included in this review (A1, A2, A4, A5, A6 and A12) underscored the idea that music-based activities can serve as a safe platform for the youth to express their thoughts, emotions and experiences, as well as to regulate their emotions and actions. These findings align with the communicative and regulative function of music: These mechanisms that linked music making to well-being were also identified in earlier studies involving adults (Kalani, 2005; Ryan & Deci, 2001).

In one of the studies reviewed (A4), young immigrant participants were allowed to choose the music that they would use in the activities. In particular, they were given the freedom to select songs in their own language, thereby giving them a chance to share their own culture with other participants. Consideration of the participants' voice and choice seems to have led them to be more interested and engaged in the activities, and served as an icebreaker for them, as they started to interact more, and more positively, with other participants. These findings resonate with the review work of Henderson and associates (2017) who also highlighted how music-based activities can bring about cultural acceptance and cross-cultural harmony.

Two of the studies reviewed (A5 and A6) showed how music was used as a tool for self-expression and self-regulation. Some participants with anger management issues found creative channels through which they could explore and express their

emotions and subsequently regulate their emotions. Expressing and releasing negative emotions, such as inner anger and pain, in music playing can generate a cathartic effect in a safe environment; this can help young individuals under stress to calm down (Choi, Lee, & Lee, 2010).

Even without conscious intentions from the participants to express themselves, music tasks, such as making a steady pulse for a sustained period, were also reported to have inherent calming effects that can be used by participants as means to shift from negative to positive mood (A6). In addition, listening to music (A12) or playing musical instruments (A1) have been found to induce relaxation and comfort during stressful conditions. These findings are in consonance with earlier reports suggesting that music alters mood by generating positive neurological effects in the brain, which induce calming effect while in an intense negative emotional state (Juslin & Sloboda, 2010).

As was highlighted in the review work done by Laiho (2004), the results of the current review uphold the potential of music-based activities to influence emotions positively and serve as a means for adolescents to develop adaptive strategies to boost their emotional well-being while they are experiencing personal crises or adverse situations.

The studies reviewed showed how music can be utilized as a springboard for self-disclosure, which can help in generating tangible and concrete representations of each individual's varying moods, views and backgrounds. Aside from being an outlet for one's emotions, music-based activities can also help to alter these emotions, thereby serving as a coping resource during stressful situations, as was also suggested by Laiho (2004).

Music-Based Activities as a Resource for Self-transformation

Many of the studies reviewed (A1, A3, A5, A6, A7 and A9) illustrated how music-based activities helped the participants to see themselves in a different light —as individuals who are more self-aware, more capable and more productive. In this sense, music can be regarded as a useful resource as adolescents go through the stressful process of self-reconstruction and establishment of adult identity, as was also described by Laiho (2004).

One study (A6) showed how participation in music making made transparent another facet of the participants' identity. As the participants observed how they played their musical instruments as a member of an ensemble, they were able to witness a different aspect of themselves—someone who could function as an active contributor for the completion of group tasks. Moreover, some activities involved in this study, which infused positive self-affirmations and breathing exercises into playing musical instruments, also seemed to have promoted greater sensory and self-awareness. These opportunities are regarded as useful in helping the youth make sense of their own life experiences and emotions (Nixon, 2016). Enhanced

self-awareness can also serve as a protective factor during stressful conditions (Cowden & Meyer-Weitz, 2016).

The music-based activities offered a safe environment for the participants to learn new skills and enhance their sense of mastery and self-concept. In one of the studies reviewed (A3), young people in detention centres whose initial views about themselves were oriented towards transgressions of law, started to view themselves as capable and confident individuals, with the capacity to work with others or become a capable musician. This took place after the realization that, aside from the outcomes that they could accomplish in schools, they could actually achieve other things, such as playing musical instruments: this prompted them to think that they could do more than what they initially believed they could. The music activities directed the participating offenders towards the realization that they had other things worthy to do with their lives.

Most of the studies reviewed also emphasized how participants are encouraged to improvise and take risks both as individuals (A1) and as a group (A6) thereby encouraging the development of their sense of personal agency. This became more feasible when the students were provided with a common goal (A6 and A7) and were supported by significant others (A1). When the participants were allowed to improvise in completing their group tasks, they also developed a sense of joint ownership and pride; this seemed to have made them more willing to share their experience with non-members of their group (A9).

Some structural features of the music-based intervention activities appear to be useful in streamlining the participants' self-transformation. In one study (A5), the intervention facilitators first explored the needs and interests of the young participants and structured the activities around these aspects, with the complexity levels of the activities gradually increasing. The participants who learned faster were asked to teach the others. In such a case, the participants were furnished with opportunities to develop leadership and mentoring skills.

In another study (A6), the music-based intervention activities were structured in such a way that the earlier parts of the activities were more facilitator-led while the latter parts were more participant-led, which offered more rooms for improvizations. These supportive structures, along with peer mentoring, are aligned with Vygotsky's (1978) emphasis on the importance of using guided learning for tasks to help children to be able to complete tasks they cannot accomplish on their own, but are able to do with the help of a more knowledgeable peer or adult. As the participants of the studies tasted success in the presence of supportive structures and caring adults or peers, the participants might have enhanced their perceptions of their capabilities in accomplishing tasks.

As the students acquired skills in music making and were able to accomplish more complex tasks, they also developed greater self-confidence and sense of mastery (A6). Creating simple music-based activities in which all participants could take on leading roles was believed to have given a significant boost to the young participants' self-esteem, as reported in two studies (A5 and A6). Having a taste of success in songwriting and seeing tangible representations of it, such as in the form of recorded music, helped the participants transform into a more confident, more

aware and more competent self (A5). This transformation seems to have shown some transference in other domains of the participants' lives (A5).

Music as a tool for self-transformation, which was identified in this review, is a mechanism closely linked to but goes beyond self-exploration, which Ryan and Deci (2001) identified as a mechanism by which music can be used to boost well-being.

Discussion

This systematic review of 13 studies generated insights into the effectiveness of and underlying operating mechanisms applied by music-based intervention activities in promoting the well-being of adolescents. The studies reviewed identified mechanisms linking music making with well-being that were not only similar to those highlighted in earlier studies, but also a mechanism distinctive to the adolescent population—that is using music as a means for self-transformation.

The three themes generated from the mechanisms and outcomes of these studies appear to have an implicit focus on the satisfaction of the participants' basic psychological needs—relatedness, competence and autonomy—as posited in self-determination theory (Ryan & Deci, 2001). The need for relatedness pertains to having stable and caring relationships; the need for competence refers to one's tendency to develop a sense of mastery in performing tasks; the need for autonomy pertains to an individual's need to have voice and choice over their activities. Satisfaction of these psychological needs is key in fostering well-being (Ryan & Deci, 2001) and could be the underlying mechanism that renders music-based interventions effective in promoting the well-being of adolescents.

Music-based activities functioning as a catalyst in building positive social connections, which can help in the satisfaction of adolescents' need for relatedness, appear to be the most common benefit afforded by music-based interventions. This effect can be further enhanced by the improvements in internalizing factors of self-expression and self-regulation skills, which were reported in a smaller number of studies reviewed. In the context of these studies, the music activities served as a non-threatening context where adolescents shared their inner selves and received acceptance from others; this acted as the impetus for subsequent interactions essential for forging social bonds and helping to satisfy their need to belong. When adolescents are able to manage their emotions more effectively, which is another skill that was improved during music-based activities, the interactions with others become smoother and more conducive for starting and maintaining positive relationships.

Having a sense of personal agency, which was specifically honed during the improvization phases of several studies reviewed, can contribute to the satisfaction of the participants' need for autonomy. The participants' freedom to express their emotions and ideas in a safe environment seem to have accorded them the space to experience a sense of control which could have enhanced their motivation and

enjoyment in doing the music tasks. Furthermore, participants in some studies also featured participants' shift in roles—from follower to leader or from learner to mentor—which also gave them the chance to direct their group's activities and be the provider rather than recipient of support. It is also interesting to note that in the studies reviewed, the exercise of autonomy was done in the context of group activities and shared purpose. These experiences of autonomy within a group setting illustrate that satisfying the need for autonomy need not require an individual to function independently or in isolation.

Many of the studies reviewed also indicated how learning new skills, such as playing musical instruments or composing songs, and being a positive contributor to group tasks helped the participants see themselves as more capable individuals, at least in the domain of music. Adding these new skills into their repertoire of competencies, along with the positive experiences of being a functional member of a group during the music-based activities, can accordingly contribute to the satisfaction of the participants' need to have a sense of mastery, and, subsequently, their well-being. In addition, the role of music-based activities in fulfilling the need for competence seems to have been bolstered by the sequencing of the activities from simple to complex thereby allowing the participants to experience success during the early stages of the intervention and building their confidence before they proceed to more complex tasks.

It is worth noting that the adolescents who were involved in the reviewed studies were classified as at-risk intellectually (i.e. with learning difficulties or intellectual disabilities), emotionally (i.e. with high levels of anxiety or depression), behaviourally (i.e. with behavioural problems) or socially (i.e. juveniles, aborigines, migrants or refugees; socially alienated or disengaged). The potential to support disadvantaged youths appears to be one of the main strengths of music-based interventions.

Limitations and Research Gaps

While the 13 studies reviewed extend the existing understanding of the minimally explored area of music interventions for the well-being of adolescents, a number of limitations need to be considered in applying the results of this review. Firstly, some of the reviewed articles did not clearly elaborate their methods of intervention, data collection and analysis (A4 and A9), thereby making it difficult to examine the validity of their findings. Secondly, the findings reported in the reviewed studies may not be generalizable to other adolescent populations as more than half of the studies involved small sample sizes (e.g. A1, A2, A3, A4, A6, A9, and A11). Thirdly, the lack of control groups for some of the quantitative studies (A1 and A8), the failure to assess baseline data for outcome measures (A5, A6, A9 and A10) and the varied duration of intervention across participants (A1 and A3) raise questions on the efficacy of the music interventions that were evaluated. Additionally, with 9 of the 13 studies reviewed focusing on socially and

emotionally at-risk population, the review findings could not offer robust insights for mainstream youth population.

This review also identified gaps and potentially productive lines of inquiry in relation to the efficacy of music-based interventions in cultivating the well-being of young adults. First, there is a need for more studies with stronger research designs (e.g. randomized controlled trials) and involving bigger sample size in order to better ascertain the impact of music-based activities. Second, none of the studies reviewed assessed the potential moderators (e.g. musical inclination or motivation of the participants) of the effects of music-based interventions; studies of this nature may guide educators and programme developers in selecting and tailoring music-based intervention activities for specific subgroups. A relatively unexplored research area is the comparison of the effectiveness of music-based interventions with that of other arts-based interventions. Furthermore, it is worth noting that although there is a growing body of literature suggesting the potential of music, as well as other domains of the arts, to positively influence well-being, it has been suggested by a few researchers that these activities may also yield negative effects in some instances (McFerran, 2016; Sonke, 2011). Further research is needed to determine not only the positive but also the negative effects of music-based interventions in school-aged population and in school settings.

Conclusion

Our review revealed that there has been a limited body of research that focused on investigating the potential of music-based intervention activities in promoting the social, emotional and psychological well-being of adolescents. Students who are potentially at-risk socially and emotionally are expected to gain more benefits from music-based interventions. Both educators and programme developers can apply the mechanisms articulated in this review when designing and enacting approaches targeting to cultivate adolescents' well-being in varied settings, including schools. Notwithstanding the potential downside of implementing music-based interventions and the limitations of the studies reviewed, the present review presents a reasonable case for music-based activities to serve as viable intervention tools for cultivating well-being outcomes.

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Part VI
Preparing Future-Ready Teachers and Students Through the Arts /in/ Education: Out-of-School Learning Contexts

Chapter 14
Museum Education as Arts Education: Enhancing Museum Experience and the Learning of Art Through the Vargas Museum Education Guide

Louise Anne M. Salas

Abstract The educative function of art museums is accepted as commonplace yet it remains an underexplored topic in arts education or arts in education in the Philippine context. For the most part, art museums are assumed to be educational because it offers access to concrete objects of study, from artworks and documents to learning materials such as video presentations and text panels, to simulated environments. Lectures and workshops, walking tours, and the publication of learning aids are some prevailing practices that reinforce the museum's education function. Discussions on formal and informal education in museums elaborate these. On the one hand, the museum can be viewed as a place for self-instruction and a learning environment distinct from other venues of formal education like the classroom while the other strand proposes that the museum can in fact be the classroom. This chapter will present the initiative of the University of the Philippines Vargas Museum in rethinking its education mandate by producing a bilingual Education Guide for students from primary to tertiary levels. This paper will discuss the process of making the guide from outlining its philosophical underpinnings to dialoguing with collaborators in the field. It will assert the importance of arts education in Basic Education and reflect on the museum's decisive role in initiating such intervention in the wake of a changing art scene and a challenging education program.

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Introduction

In recent years, discussions on arts education[1] in the Philippines signaled a renewed interest in the field as the education landscape changed in light of the country's implementation of the Enhanced Basic Education Program (K+12). Enacted into law in 2013 under Republic Act 1053, the revitalized program seeks to strengthen the curriculum and increase the number of years in Basic Education. In the Arts Educators Forum organized by the Cultural Center of the Philippines (CCP) last October 25, 2016, CCP trustee Nestor Jardin identified the role of the arts in social transformation, national identity, human development, as well as its economic potential, where much emphasis was placed. The framework was guided by the development paradigm of the twenty-first century where knowledge, access to information, and creativity were deemed crucial in today's economy, echoing the World Economic Forum (Gray, 2016) which identified creativity as a twenty-first-century skill needed for the future. This resonates to the P21's Framework for 21st Century Learning,[2] which aspires to equip students with the skills necessary to course through "rapid changes in technology and the globalization of the world's economy" and "prepare them for success" (Dorame, n.d.). Creativity and innovation were identified as one set of learning and innovation skills that prepare students for "increasingly complex life and work environments" (Framework for 21st Century Learning, n.d.). Belonging to higher order thinking skills, a student's ability to think creatively by employing a wide variety of idea creation techniques; to work creatively with others by demonstrating receptivity to new ideas and diverse perspectives; and to implement innovations is considered of paramount importance in the context of the twenty-first century. In the forum, one perspective explored the role of the arts in the development of creative industries, which make up a fraction of the Philippines's gross domestic product. Facets include the performing arts, the visual arts, publishing and printing, design, audio-visual and new media, cultural sites, and traditional cultural expressions. Another perspective offered by Alice Pañares, resource person on culture and the arts for K + 12 and member of the Commission on Higher Education's (CHED) technical panel for teacher education, explored the role of creativity in the educational system in connection to the Enhanced Basic Education Program. From this standpoint, creativity is seen as a response to what the speaker called "disruptions" and "changed landscape" to describe the terrain of the new educational system and the contexts to which it supposedly adapts. With these changes come the need to

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[1]This paper subscribes to the term "arts education" to acknowledge the "multiplicity of art genres" as Gadsden (2008) and other researchers on the field have suggested.

[2]P21 or Partnership for 21st Century Learning is an educational organization comprised of members from the business community, leaders in the educational sector, and policy makers in the USA. Founded in 2002, the organization "brought to the forefront a comprehensive set of skills that along with content mastery, are what all sectors can agree are essential for success." The framework, which suggests the integration of twenty-first-century skills into respective subjects has also been cited in the local context, particularly in textbook production.

"level up and teach for the new present," in recognition of the importance of "learning to learn new things" through the development of critical thinking skills as well as "anticipatory learning," or learning to develop foresight crucial to lifelong learning. Weaving the two talks is a consensus on the important functions of formal, informal, and non-formal educational institutions or settings,[3] art institutions and organizations, to meet such goals. However, despite expressions of high regard for the arts and creativity, the practice of teaching and learning the arts in Basic Education poses recurring challenges, some of which will be identified in the succeeding sections of this paper.

This paper explores arts education in an informal setting like the museum, specifically, the Vargas Museum. Set in a university, the Vargas Museum hopes to expand its education mandate beyond a community of academics and college students by designing and publishing a comprehensive Education Guide for students in Basic Education that attempts to address twenty-first-century learning in both formal and informal education settings. The assumption here is that not one institution or initiative can single-handedly resolve the problems and constraints of arts education. This discussion hopes to probe the potential of museum education and its value in arts education in the wake of a constantly changing art scene and a challenging formal education program.

Contexts of Arts Education in the Philippines

According to artist and art educator Brenda Fajardo, there are several forms of arts education practices in the Philippines that were shaped by historical forces and developed to cater to certain needs. These were interpreted and practiced in various ways. Art education in Fajardo's terms has to do with teaching and learning the arts in formal, informal, and non-formal contexts. In her paper titled *A Reflection on the Art Education Practices in the Philippines* (2012), her historical estimation can be divided into several types. The first kind focuses on art education that was only concerned with teaching and learning the rudiments of art production. Early art education can be traced to how natives learned painting during the Spanish Colonial Period (1521–1898), where the Church was foremost art patron. Religious pictures were seen as essential to evangelization, and the Chinese *mestizos* were said to have been the first painters who learned painting informally by copying Western models. With sociopolitical and economic changes in the nineteenth-century colonial

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[3]Formal education is characterized by classroom and curricula-based learning led by teachers, where students receive a degree or official recognition upon completion. Informal education transpires beyond the classroom through daily experience and exposure to after-school programs, museums, libraries, media, and even at home; it entails less structure and requirements such as exams and learning is often self-directed. Non-formal education shares characteristics with informal education. It is often facilitated by professional organizations or collectives that employ innovative and creative learning methods outside of the school context.

Philippines emerged new art patrons who paved the way for the production of secular art. The painter Damian Domingo, who established an art school right in his very home in Tondo, Manila, was considered as one of the first art educators in the country. When the Spanish government took cue from this homespun art school, leading teachers were brought from Spain to teach art that was largely influenced by the Spanish academic tradition. Aspiring artists learned art locally or studied Fine Arts in Spain. The first type of local art education, which Fajardo described as "imitative and derivative" pointed to practices of art educators who were artistically inclined but were not formally trained in art education. While she observed in the 1950s and the 1960s that art was being offered in some private schools as part of secondary education, she noted that these were derivative of models in the USA, owing in part to the dearth in local resource materials on Philippine art and culture. Art education then was mainly focused on the acquisition of skills and techniques in making art and not on art as a humanistic endeavor that can be approached in an historical or discursive light.

Arts education in Philippine schools is hinged on the nature of the teaching institution. Curricula in public schools are mandated by the national government's Department of Education,[4] while private schools exercise greater degree of freedom in implementing its own curriculum. In the 1980s, an educator laments, "the past decade has not produced any exciting pedagogic crisis or upheaval in the field of art education equivalent to the 'art boom' in the Philippines" (Pañares, 1981, p. 10). Many educators observe that art is considered a minor subject in Philippine schools, whether in private or public schools (Pañares, 1981; De Vera, 1996; Fajardo, 2012). This is testified by the number of class hours devoted to art, which often prove insufficient. In public schools, "art" is integrated with Music, PE, and Health in a subject called MAPEH. The subject is often taken once to thrice a week, with a total of one to two hours per session. MAPEH (Music, Art, Physical Education, and Health) is considered a minor subject as compared to Language and the Sciences, major subjects that can immensely affect a student's academic performance. As a minor subject, a student's performance in art bears little weight in his/her overall academic achievement.

Given meager importance, the quality of teaching art is also affected. Oftentimes, there is only one teacher for MAPEH, whose profile and expertise may be focused on only one of the four subject areas. Moreover, it is not unusual for teachers without an arts background or those without adequate professional training and preparation to engage in the teaching of art. Thus, there is a tendency for the art program to be "erratic and highly dependent on the teacher's philosophy and skill" where the teaching methodology spans "from highly structured lessons to a very freewheeling, you-can-do-anything-you-like instruction" (Pañares, 1981, p. 10).

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[4]The Department of Education had its official name changed several times since its founding in 1863. From its beginnings as Superior Commission of Primary Instruction, its most recent name change was in 2001 to reflect its mandate of administration of Basic Education at the national level.

The lack of a solid framework in teaching the arts emanates from both private and public school contexts. For the former, there appears to be no standard or uniform art education practice; each private school has the freedom to create its own art program. For the latter, it is the confusing character of MAPEH, "which does not clearly define its intent and purpose" (Fajardo, 2012, p. 11). This confusion stems from the subject's design, where art is combined with three other subjects, and where issues such as time allocation for each and competencies of the teacher arise.

Since the subject art constitutes a small part of total credit hours in the semester, the quality of teaching and learning makes the students unprepared for a course in the humanities in tertiary education (De Vera, 1996). These concerns are further compounded by the limited availability of resources for implementing art education, and the unevenness of access to these resources. As Pañares (1981) points out, these resources include materials for art production as well as the availability of conducive physical space that would encourage students to "paint comfortably, or experiment with materials, or get messy once in a while" (p. 10).

Another phase in art education according to Fajardo (2012, p. 4) is concerned with "grounding art education in the Philippines and the emergence of appropriate art education" where art educators became reflective about the need to develop a program that is rooted in the local context. A milestone in the late 1960s was the establishment of the Philippine Art Educators Association (PAEA), a gathering of art educators from private schools whose goal was to assess the status of art teaching among practitioners. PAEA was founded by visual artists Fajardo and Araceli Dans who were interested with "what, how, and when to teach certain skills, techniques, and topics to certain grade levels" (Fajardo, 2012, p. 4). The organization was particularly keen on shaping the lessons based on Philippine context by emphasizing on "local materials and images, based on the learner's own lived experience with artistic activities appropriate for the developmental stages of the Filipino child" (Fajardo, 2012, p. 4).

Aside from PAEA, Fajardo cited the efforts of PETA (Philippine Educational Theater Association) in developing pedagogical approaches in the arts, specifically theater. Since its founding in 1967, the organization has been producing a significant number of plays and is committed to artistic development, education in theater and the arts, and development through its strong outreach component. PETA introduced an integrated arts approach in their workshops, which they initially implemented to secondary school teachers and students as a three-day event in 1973. This workshop eventually became the core of PETA's pedagogy, coming to full circle as Basic Integrated Theater Arts Workshop (BITAW), which was later adopted in various areas in the Philippines and "led to the formation of community theater groups" (Fajardo, 2012, p. 6). The module encourages various art expressions, such as body movement, creative writing, music, visual arts, and drama. BITAW's exercises are experiential, interactive, and facilitate group dynamics. The PETA experience is worth noting because its outreach activities and

involvement with communities[5] characterize non-formal education practices that exist beyond the confines of the traditional school. It supports the work of the traditional school by providing theater education to teachers through its Theater in Education workshops. The PETA pedagogy, particularly the BITAW module is influential in its active learning mode and adoption of Howard Gardner's theory of multiple intelligences, which places importance not only on a person's cognition but also his/her's kinesthetic capacities as well as emotional and interpersonal intelligence, which can be observed in group dynamics. The latter is valued by art education practitioners for its potential to hone a person's socialization skills. A case of non-formal art education influencing formal learning, it is worth mentioning that the work of PETA in theater pedagogy has inspired researchers and educators to revisit MAPEH and propose a theater education curriculum for teachers. In *Designing a Theater Education Curriculum for the Training of Secondary School Teachers*, Santos-Cabangon (2012) noted the disjunct between what the teachers are expected to teach in the classroom and their academic background and training. It was observed that the teachers' lack of theater education impedes the optimal implementation of the music and arts curriculum in MAPEH where theater is included as a discipline of study and learning competency.

Museums often come to mind as a place for informal art education. This has not always been the case, since the primary function of museums has been historically confined to collection, preservation, and display of artworks (Osborne, 2000; Levi, 2000; Vallance, 2000). In the twentieth century, the museum as an agent of education became pervasive as museums became democratized (Attenborough, 2002). It coincided at the time when the importance of education became increasingly recognized and when museums and galleries became more accessible to the general public. With a greater public engagement, museums were compelled to include in its policy "educational programs through a variety of ways, including lectures, labels, guided tours, and exhibitions which involved visitors both physically and intellectually" (Attenborough, 2002, p. 86). In other words, impressions of the museum as an "assemblage of nothing but masterpieces" for pure aesthetic contemplation (Levi, 2000, p. 389) and as "an agency of cultural history" (Levi, 2000, p. 394) are insufficient and unimaginable with today's museum exhibitions that have become didactic based on the assumption that viewers visit the museum to learn. The museum for its part, assumes the role of educator that not only provides materials for education, from actual artworks to interpretive materials; it also creates an environment conducive to learning, whether self-directed or guided. The availability of such an option brings us to the character of the museum as an informal institution, a place where learning can be enhanced based on one's volition and pacing. The museum is seen as a place where students can enrich their learning through its artworks and programs. While the museum fosters an opportune

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[5]According to Fajardo, PETA also offers workshops for marginalized communities "which focus on advocacies for social development." PETA's People's Theater has regular workshop offerings for specific audiences, from children to adults. It also has workshops intended for teachers titled Theater in Education, which attempts to "bridge the gap in the training of school teachers."

environment for learning, there could well be other motivations for the visit, such as to take respite from work or to socialize (Vallance, 2007). In other words, according to Falk and Dierking, museum learning, "is a matter of free choice" (qtd. in Mayer, 2005, p. 17). Whether the visit is school-directed or individually motivated, the learning that takes place within the museum is difficult to measure. Nonetheless, what the museum or other cultural centers represent is the ultimate goal of art education: to instill in people an enduring habit of visiting these centers and to avail of art resources even after one's formal art education has culminated (Vallance, 2007).

Art education practitioners in the Philippines consider museums as an "alternative classroom" or as a place for "out-of-the-box" learning experience.[6] This stems from the notion that the school remains as the trusted institution for formal education and that the museum has the potential to be an option or a substitute for classroom learning. According to Hein (1998), the role of the museum in education became increasingly significant as approaches to education became more sophisticated over the years, particularly in reference to the perception of learning—that it occurs when a learner actively engages with the environment, a possibility offered in museums where visitors interact with materials on display. Often, distinction is made between formal and informal modes of education. For some educators, the distinguishing characteristic is the presence or absence of a curriculum (Hein, 1998). Schools provide formal education based on a hierarchical curriculum, a series of assessments that evaluate learning and other requirements for official completion. Museums on the other hand offer informal education that "do not have a set curriculum that progresses from lower to higher year levels, usually do not require attendance, and do not certify mastery of knowledge at the conclusion of a visit" (Hein, 1998, p. 7). The museum encourages self-directed learning, according to Hein. While he makes such distinction, he also remarked that informal education can take place in schools, and modes of formal education can also take place in museums. In the former, Hein cites progressive schools that implement a learning philosophy that actively engages the student in a setup which can be likened to science museums. As for the latter, there are some museum activities, such as talks and workshops that share similar characteristics with the classroom setup.

The UP Vargas Museum

The Jorge B. Vargas Museum and Filipiniana Research Center is the main museum of the University of the Philippines (UP) in Diliman, Quezon City, north of the capital Manila. In 1978, the politician and collector Jorge B. Vargas donated his

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[6]Art educators such as Alice Pañares and Alma Quinto facilitated a National Workshop for K + 12 Teachers at the Vargas Museum titled "Teaching Out of the Box" last 26–28 October 2016. The workshop introduced museum exhibitions as teaching material for subjects other than art and suggested the possibility of using the museum as a teaching venue.

fulsome collection of art, stamps, coins, and books to his alma mater. Vargas Museum is the first museum with an extensive collection to be established in UP Diliman campus. Vargas (1890–1980) occupied high government positions, among them executive secretary during the Commonwealth period in 1935 and mayor of Manila during the Japanese-sponsored republic at the onset of the Second World War. Since the museum's opening in 1987, its library and archives have become an invaluable research center open to the public; these enhance the Vargas art collection, providing it sharper context for internal research and exhibition purposes. In recent years, the library and archives were activated in line with the contemporary art program of the museum. The contemporary art program, implemented through thematic and changing exhibitions, is a response to the dynamic art scene in the Philippines, where artistic forms and expressions have expanded considerably since Vargas's time of collecting. A deeper exposure of artists to both local and international art scenes, the strengthening of support systems for contemporary art such as schools, cultural institutions, and organizations; the development of platforms for contemporary art production and circulation, may have contributed to this expansion. Since 2009, contemporary artists have been invited to research materials from the library and archival collection in order to bring out the materials in store and make them accessible to the public, allowing them to be presented in a wide variety of contexts. This also strengthens research practice as an important artistic concern.

The museum's highlight is the permanent art collection of Jorge B. Vargas, consisting of works by Filipino artists from the late nineteenth century to the 1960s. The collection covers turning points in Philippine art and history and the permanent exhibition at the Main Gallery was curated in 2009 in such a way as to flesh out these highlights. The Main Gallery exhibition titled *The Vargas Collection* from which the study guide draws material was curated diachronically and thematically. The artworks were organized according to four sections beginning with Light (1886–1898), followed by Province (1899–1934), Unease (1935–1946), and Passage (1947–1955). These sections chart "critical shifts from the late Hispanic academic period of the nineteenth century to the early phases of modernism at the beginning of the twentieth century under American rule" (Vargas Museum, 2010). Artworks representative of each theme and timeframe reflect sociohistorical conditions by which they were produced, art historical contexts, and the collecting inclinations of Jorge B. Vargas who collected actively until the 1950s. Another component of the Main Gallery exhibit is contemporary art interspersed in the four sections. The curatorial decision to include contemporary art in the permanent collection exhibition is to "initiate conversations between art of the past and contemporary expression, so that in their encounter, the past gains presence and the contemporary recovers its roots" (Vargas Museum, 2010).

The Vargas Museum since its opening in 1987 has been implementing museum education programs in response to its mandate as a "teaching and learning institution" (Office of the UP President, March 1995, p. 3). A Museum Educators' Forum (Paulino, 2010) participated by representatives of Manila-based museums held in 2009 at the Metropolitan Museum of Manila reveals that each institution has

its own interpretation of what counts as museum education. There is common understanding, however, that museum education is the arm that mediates between the curator and the public. The work of museum education is understood as an effort toward interpretation and public access: managing the content of text panels, publications, and labels; facilitating workshops, trainings, and discussions for a general or specialist audience; touring visitors; making study guides for students; developing interactive programs for children; to name a few. At present, these activities are being offered in university museums, which draw an immediate public by virtue of their location on campus as well as a mandate based on the university's history and academic program offerings. There is also the potential to attract audiences beyond the university and so the education programs of university museums may be instructive in this regard. The Ateneo Art Gallery (AAG) of the Ateneo de Manila University and the Museum of Contemporary Art and Design (MCAD) of the De La Salle College of St. Benilde facilitate education programs based on their collections and exhibitions. AAG exhibits the modern art collection bequest of artist Fernando Zobel as well as other contemporary artworks by local and international artists. In the absence of a permanent art collection, MCAD functions like a Kunsthalle, an exhibition space for contemporary art with education programs that "take hold of a range of discursive positions, not only on contemporary art and design but also culture, politics, family, and society" (Education, 2019). Both institutions offer programs for students, such as artists' talks and guided tours, which help enhance their understanding of the exhibits through engagement with the artist or the museum educator to whom they can ask questions. The attempt to broaden the reach of contemporary art can be observed in the efforts of both institutions, particularly by designing programs for younger visitors. The art production workshops, which are intended for visitors ages 5–10, and pre-teens, include modern and contemporary art techniques such as cyanotype, collage, textile art, or stop motion animation that go beyond traditional drawing or painting. In MCAD, the public program is divided according to age brackets and school levels (e.g., "early years" and "secondary education") as well as broader categories such as "young creatives" and "community." For every temporary exhibition, MCAD publishes study guides on their Web site, which the teacher can share to the students in order to process and articulate the latter's experience of the exhibition. While it offers flexibility on the part of the teacher, the guides do not specify which subject area it best responds to. There are more examples that can be discussed at length, but perhaps more productively in another paper.

Prior to the production of the Vargas Education Guide, there have been efforts by previous leaderships to sustain an educational program that widens the audience of the museum, from the Junior Museum Guides that engages young people to museum work to preventive conservation workshops that train professionals in the field. The impulse behind the creation of Education Guide, the first comprehensive guide produced by the museum, emanates from its context in the university, first and foremost. Professor Patrick Flores, the museum's curator from 2009 to present

views the university museum as a site of "experiment and pedagogy,"[7] (Flores, n.d.) responsive to students, faculty, and other members of the university community. There is also the UP Integrated School, the Basic Education arm and laboratory of the university's College of Education. However, in response to changing times, the Vargas's view of museum education has also become that of extension or public service, sensitive to apparent limitations of arts education in Basic Education.

The Vargas Museum Education Guide

Front cover of the Vargas Museum Education Guide featuring details of four paintings from the Vargas Collection. Image courtesy of the Vargas Museum

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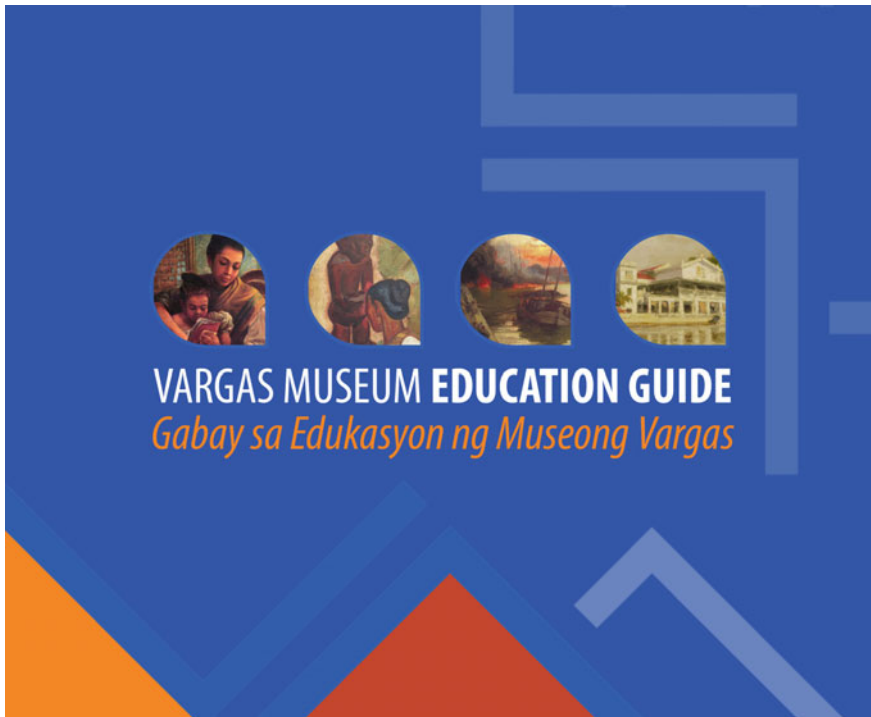
[7]In his unpublished essay for a conference at Taipei University, Flores describes the Vargas Museum as "a workplace and at the same time a laboratory where reflection and invention happen." Citing the context of the museum within the university, he reflects that his work as curator of the Vargas is inclined "towards a museum program that is responsive to the requirements of criticality and interdisciplinarity in the university, aware of the context of the collection and the research capacity of its library and archives, and open to the interventions of contemporary artists within the space of the collection and in individual projects involving archival material."

Developed in 2011, the reference materials include the actual artworks exhibited on site and printed resource materials that include a teacher's manual containing students' activity sheets and flash cards. These are supported by other educational offerings by the museum such as bilingual text panels in the Main Gallery, captions, and guided tour by the museum staff. The Vargas Museum Education Guide was initiated and edited by the museum's current curator and it was prepared by the Vargas's curatorial staff. Its contents were reviewed by a panel of art educators affiliated with the following institutions: University of the Philippines, Diliman; Balara Elementary School, Ateneo de Manila, UP Integrated School, College of St. Benilde, Museo Pambata (Children's Museum), and visual artist Alma Quinto. The Education Guide workshop was held on April 7, 2011. The guide benefited immensely from the suggested revisions of practitioners, especially with regard to mode of address, degree of difficulty, and implementation. The texts were translated to Filipino by Sentro ng Wikang Filipino (SWF). The project received support from the UP Diliman Office of the Chancellor and the efforts of private entities such as 30 Art Friends and Finale Art File.

The Education Guide is divided into four sections: Primary (K–3), Intermediate (4–7), High School (8–12), and College. It is a bilingual guide that contains a write-up of the four artworks from the permanent collection, from which the guide questions and activities are focused. Each write-up describes the artwork while the sidebar contains a feature of the artwork for further discussion. On the reverse side of the write-up is an image of the artwork, which the teacher can show in class. Throughout the guide, certain terms are highlighted to increase the students' recall or to alert the teacher to discuss them further in class. These terms may be revisited in the glossary found in the appendix of the guide, along with useful references such as the Overview of Philippine Art History and wall notes on the exhibition *The Vargas Collection*. The appendix likewise contains worksheets, which can be reproduced for the class. Each section of the guide contains questions, which allow teachers to facilitate discussions based on suggested themes. The suggested activities allow teachers and students to extend engagement with the work outside the galleries, whether at the Sensorium, the classroom, or at home. Icons representing these locations are placed next to the activity, which suggests whether it is possible to be implemented as pre- or post-visit, or actual visit.

Toward a Discipline-Based Art Education

Writing in 1996, UP College of Education professor Lorna De Vera proposed Discipline-based art education (DBAE) as an approach to instruction in order to strengthen curricular content of art education in the country. Because of DBAE's

strong orientation toward "mind-building,"[8] De Vera (1996) believes that there is potential for art to occupy a greater weight in the curriculum due to its cognitive dimension. She cites "important aspects of engaging in art, such as analyzing, interpreting, and evaluating" (p. 16), which are often neglected due to much emphasis placed on a student's art production capacities. De Vera (1996) observed that while the Department of Education had articulated the importance of the arts in education, the programs and existing conditions at that time do not reflect the institution's appreciation of the value of the arts. She summarizes the state of art education in the Philippines as follows: "(a) Art holds a marginal place in the school curriculum; (b) It is neglected and absent in some schools; (c) Art is taught as mere production activities; and (d) Art teaching falls upon teachers who are not prepared to teach it. Teachers realize the problem, but they usually do not know the solution" (De Vera, 1996, p. 20).

Interestingly, these four conditions, which describe the arts education landscape of 1996 seem to still hold true in recent years, as participants of the Vargas Museum Education Guide Workshop attest. Still according to De Vera (1996): "All these point to the need for a rethinking, not only of the program's conceptual structure, but also of the definition of a philosophy of art education on the what and how of the content to be taught" (p. 21). In the college level, the DBAE framework has also been implemented by certain academic units like the Department of Art Studies in the University of the Philippines to "delineate its disciplinal areas" (Datuin, 2011, p. 111).

The questions and activities of the Education Guide are framed based on the tenets of discipline-based art education. Developed in the 1980s by the Getty Center for Education in the Arts, DBAE evolved from the belief that "Education in the arts contributes to every child's emotional and intellectual development and deserves to be part of the core curriculum, and education in the arts develops affective and cognitive capacities and its teaching should reflect both" (Duke, 2000 p. 17). It is attentive to the four constituent disciplines in the study of art, including art production, art history, art criticism, and aesthetics, initiating teachers and students to study art in its different facets. DBAE broadens the study of art, expanding the notion that its pivot rests only on art production.

The DBAE framework was adopted in the Vargas study guide due to its strong orientation toward "mind-building" (Duke, 2000). Harnessing multiple learning modes, it dispels the notion that the arts only appeal to a person's affective and sensory capacities but not his/her cognitive abilities. This has been used to argue for the significance and centrality of art in Basic Education. As discussed in the previous section, in the Philippine context, art is not given much priority in the Basic Education curriculum. Art is considered "an end in itself" (Pañares, 1981, p. 10),

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[8]This is a term used by Leilani Duke in the article "Mind Building and Arts Education." Duke writes that art educators such as Rudolf Arnheim, Elliot Eisner, and Howard Gardner have argued for the role of art in building the cognitive capacities of a child. Their studies counter the notion that the arts "appeal to our emotions, feelings, and sensibilities" and requires "little exercise of discrimination, interpretation, and judgment" (2000, p. 15).

in other words, students are given the impression that art ends with production, thereby disregarding other art-related activities, such as critiquing or analyzing the finished work. In the DBAE framework, art is viewed as a discipline with established methods of inquiry at par with so-called major disciplines such as math or the social sciences. Although the material of the study guide is art, it attempts to provide topics and activities that swivel across subject areas and competencies, from language to the social sciences. The guide enables the users to perceive, interpret, and analyze the artworks before them in relation to their lessons. The instructional materials, the collaborative mode of teaching, and the Sensorium (an activity area distinct from the gallery) were designed based on the principle that education in the arts develops both affective and cognitive capacities.

Thematic Approaches to Content: Artworks and Lessons

The study guide contributes to the study of Philippine art by focusing on artworks created by Filipino artists from the late nineteenth century to the 1960s, which are part of the Vargas Collection, as well as contemporary art which is a vital part of the museum's exhibition program. The questions and activities facilitate discussions on Philippine art and society, encouraging students to look beyond the artist's genius or their material or technical expertise. By practicing aesthetic scanning, students are trained to view images in an active and thorough manner and learn to relate them with history, politics, culture, and everyday life.

Each set of questions and activities is aligned to the learning objectives and competencies for each school level. In writing the guide, the Basic Education curricula were also referenced so that teachers may consider the museum as their alternative classroom, upon recognizing the content's correspondence and relevance to their lessons. The Education Guide hopes to serve as a springboard by which the teachers could expand their lessons based on the initial contents of the guide. At present, the guide's questions revolve on four artworks and are presented thematically, namely: *Ties with Others, Ways of Living, Passage of Time*, and *Sense of Place.* Each theme is represented by the following artworks, respectively: *Primeras Letras* (Learning to Read) by Simon Flores (1890, oil on canvas); *Bulul at Babae* (Bulul and Woman) by Victorio Edades (undated, oil on canvas); *Bombing of the Intendencia* (1942, oil on canvasboard); and *Malacañang by the River* (1948, oil on canvasboard), both by Fernando C. Amorsolo.

The themes were broadly conceived yet suggestive of parameters. *Ties with Others* explores social roles, affinities, and relationships, resonating with the concerns of Social Studies (Araling Panlipunan). The nineteenth-century painting *Primeras Letras,* which presents a woman teaching the child how to read can prompt discussions on the relationship between the mother and the child and its enduring representation in art, the role of women in society, or the act of reading and its potential to shape young minds. Students may also be introduced to semiotic analysis as a method of interpreting details of the image, from the space the figures

occupy to the figures themselves, to possibly open up a conversation on norms and indicators of social status.

The reference image for *Ways of Living* is a dark-skinned woman looking at a *bulul*, an anthropomorphic wood carving considered as granary god of the Ifugao ethnolinguistic group in the Cordillera region of the Philippines. *Bulul at Babae* supports reflections on culture and identity; how one's sense of belonging is affected by notions of shared spaces, practices, beliefs, and material culture. The class may benefit from an issues-based discussion on the concept of the self in relation to the "other," the gaze as an expression of power, or even concepts of nation. The scale of the *bulul* in the pictorial plane conveys its centrality in the painting, which can be emphasized as the teacher probes on how a society values objects as they are circulated—as art, ritual object, cultural artifact, heirloom piece, or commodity, which in some cases may overlap.

The guide questions and activities in *Passage of Time* deal with history and memory. Amorsolo's *Bombing of the Intendencia* depicts a building being engulfed by fire as an effect of the Second World War, when the Japanese invaded Manila in December 1941. The painting is a visual record of an historical event based on the artist's imagination and interpretation. The painting can elicit dialogue on historical events and contexts, namely the nineteenth century when the Intendencia, or treasury building was built; the American Period where the building was reused as Senate House; the Second World War, when the structure was partly destroyed and when the painting was made and eventually acquired by the collector-politician Vargas; the 1970s when the building was reused by the Commission on Elections until it finally perished in a fire in 1979.

The importance of historical contexts is also underscored in the theme *Sense of Place,* where an architectural form occupies a large part of the composition. In the paintings of the last two themes, the artist reckons the environment and the look of existing buildings, the latter often displaying stylistic features of the period when it was built. The central image in *Sense of Place* recalls Malacañang, the seat of Executive power in the Philippines. While the building is a familiar structure in the country, the series of guide questions hopes to instill the potential of built space to symbolize power or to convey partisan values. What makes the place iconic is not only the architecture but also the clear waters of the Pasig River, which also assumes center stage in the composition. Today, the painting appears to be a nostalgic representation of Pasig River, once a strategic and picturesque waterway that has now become appalling, foul, and nearly dead. The said image can provoke discussions on bodies of water, environmental changes and disaster, people's habits and attitudes toward the natural environment, or regeneration efforts through public art projects.[9]

The Education Guide introduces the four themes through four paintings from the collection where teachers have the option to reference other works later on.

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[9]See Pasig River Art for Urban Change project: https://www.britishcouncil.ph/programmes/arts/visual/urban-change/map.

Moreover, the Vargas Education Guide constantly connects discussions on art in relation to Jorge B. Vargas, a political figure in the Philippines and from where the art collection and archives trace its provenance, in order to enrich discussions on social studies and history. In a similar vein, the networks of art are broadened beyond the so-called art world. Experiencing art can mean thinking about ideas, gestures, and practices which are not readily visible in the work, such as the practice of collecting art and its politics.

The above examples suggest how a painting can stimulate discussions on social, political, ecological, cultural, and historical issues and contexts, and thus can have a stronger presence in the main subject areas of the curriculum, such as social studies, history, or geography. Through this exercise of looking intently at artworks and relating them to broader aspects of life, students are trained to examine works of art in a critical way, which would eventually allow them to recognize its relevance. Approaching art through the disciplines of art history, criticism, and aesthetics would give the students more options by which one can engage with art, aside from production, which is perceived as the most important. While the education guide benefits from the DBAE framework, it is also worth mentioning art education theories that expand the notions and boundaries of art, such as Visual Culture Art Education (Duncum, 2002) and Material Culture Art Education (Bolin and Blandy, 2003). The Vargas Study Guide draws upon four paintings but its questions also aim to broaden the students' understanding of art by exposing its nexus to visual and material cultures, from mass media and popular culture images to "human mediated sights, sounds, smells, tastes, forms, and expressions" (Bolin and Blandy, 2003, 250). These are sometimes overlooked and regarded as secondary to the "fine arts" which is assumed to be the best mode of articulation among forms of human expressions.

The Education Guide hopes to provide the teacher a head start especially if he/she is not professionally equipped to teach art, by providing a model or a framework for art education. It is a modest effort toward resource generation for local art education. It hopes to address the dearth in local teaching materials, which the teachers can follow to the letter or modify to suit the class's pace. The activity sheets may be reproduced and can be accomplished by the students in the classroom or at home (as a pre-visit or post-visit exercise) and in the museum sensorium during the class visit. In creating these contexts for teaching and learning in the arts from the classroom to the museum, the initiative hopes to encourage multiple learning modes and possibly, harness opportunities to enhance pedagogy.

Carving a Space for Art Education

Installation view of "Bridges" exhibit at the Vargas Museum Sensorium. Image courtesy of the Vargas Museum

In the Education Guide Workshop organized by the Vargas Museum in 2011, one of its participants, artist Alma Quinto remarked that the visual arts stand in competition with the mass media and other forms of entertainment.[10] While it is common practice for busloads of students to visit art museums as part of their field trip, it is not unusual for it to be done in haste because of the tight schedule set by teachers and tour planners. Often, the museum is just one of the itineraries for the day, sometimes competing with the amusement park or a television station. The time devoted to museums is shortened significantly and the number of visitors often affects the quality of tours. Hence, one cannot expect students to have a deep encounter with art during these visits. One of the motivations in making the Vargas Education Guide is to deepen students' encounter with art by directing them to questions and activities that would allow them to inspect the works more closely. While looking, questioning, reflecting, and discussing are important cognitive activities for art education, participants of the workshop hold firmly in the belief that the museum should offer "sensorial experiences" where students can engage with interactive components, in part alluding to the concept of learning by doing.

After the guide was produced and insights from the Education Guide Workshop were culled, the Vargas Museum endeavored to construct a space of roughly 20 square meters called Sensorium, which can function as an activity area for actual visits. It contains publications which students can browse furniture for art activities, interactive objects, archives, and audio-visual materials. *Bridges: Mariano Ponce and Jorge Vargas*, the second show which opened at the Sensorium in 2018, is a historical exhibition that involves interactive components and was conceptualized

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[10]Quinto's remark also pointed to the need to integrate in the lessons activities involving various forms of media, most notably social media. Some activities in the guide were a response to this comment.

as a learning hub for early childhood care students of the Municipality of Baliwag, Bulacan. *Bridges* traces connections between two political figures, Vargas (1890–1980) and Ponce (1863–1918), who both served as ambassadors to Japan during the period of transitional colonial governments in the Philippines and contributed in their own way toward the path of independence. The title also resonates to the museum's partnership with a municipal museum in Baliwag, Bulacan, where Ponce was born and raised. Aspiring to instill curiosity and interest in history among the young, areas in the Sensorium such as reading and writing nooks were designed to invite students to participate in activities. They are to imagine themselves as diplomats and write to their relatives about their experiences in living in a foreign land. In reference to the archival photos of Ponce and Vargas while in Japan, students are also invited to imagine their own official residence and think of elements that would make the space reminiscent of their own home and identity as Filipinos. While this temporary exhibition is not part of the Education Guide, the construction of the Sensorium is a response to the felt need to allocate an interactive space in the museum, a room where some activities stated in the guide can take place.

Conclusion

The Vargas Museum Education Guide was designed to strengthen museum education in the country. It proposes that the museum's spaces be utilized as an alternative classroom for actual visits where students can encounter works of art and other teaching resources in the Sensorium. The printed guide itself is to be considered a teaching resource to integrate the study of art in Basic Education, from primary to secondary levels, and even for Tertiary Education. The Education Guide hopes to encourage teachers to bring their students to the museum, to align their lessons with their visit, in order for students to deepen their encounter with art. Logistical concerns such as the issue of transporting students to the museum and schedule, actual implementation of the visits, and evaluation methods following the DBAE framework have yet to be studied pending distribution and formal launch of the Vargas Museum Education Guide.

The Vargas Museum Education Guide is primarily aimed at providing a framework by which art can be approached through the various art disciplines aside from production, as well as to assert the importance of the arts in the curriculum. The more Olympian motivation in making the Study Guide is to offer resources to improve the quality of art education in Basic Education in the Philippines, which is in dire need of rethinking and reevaluating, as the situation of MAPEH attests. The Guide, in other words, is an effort geared toward that direction.

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Chapter 15
Playbuilding: A Platform for Re-imagining and Re-thinking Identities and Power

Jennifer Wong

Abstract This chapter discusses the role of playbuilding in enabling a process to re-imagine and rethink identity and agency in children from low-income families in Singapore. Using the multiple case studies methodology, this research project examines the established individual and social identities of a group of children living in government-owned one-room rental apartments in the island state. The narratives that emerged during the playbuilding process illuminated the challenging circumstances confronting these young people and their futures, but it also provided them with the space to examine the agency they possess to negate these problems, leading to a shift in their perspectives about the identities they embodied. A reflective practitioner approach with a heavy reliance on participant observation supported the drama conventions and techniques used in this research study. These methods created pathways that facilitated the children's exploration and examination of selves and their possible futures.

Introduction

The playbuilding project began on 16 March 2015 in Sen Ling estate in Singapore. It was the first session of a playbuilding programme, in partnership with Rainbow Service Centre (RSC), a Voluntary Welfare Organisation (VWO), with children who were residents in one of the government-owned rental estates in Singapore. Such rental estates are reserved for citizens with a combined monthly household income of SGD1500 and below. The average annual household income in Singapore was SGD65,000 (Basu, 2013), which was over three times the average annual household income of those living on the margins of poverty. Over the course of three months, the children and I worked collaboratively through playbuilding to explore, improvise and investigate the events happening in their lives. We also examined their attitudes towards particular situations, such as violence and crime

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that were common in their neighbourhood, and investigated possible ways to achieve contradistinctive outcomes.

This playbuilding project was part of my Ph.D. research study. My thesis discusses the role of playbuilding in enabling a sense of self-efficacy in children from low-income families in Singapore. Viewing through critical and reflective lenses with a strong reliance on participant observation, I examined the collaborative and improvisatory processes within playbuilding and analysed how the creative process enabled shifts in the identities and perspectives of the children. The entire playbuilding programme was over thirty-two hours, broken into two phases of sixteen hours each. The names of the children, youth worker and the VWO involved in this research have been changed to protect their identities.

This chapter draws on the two of the main findings from the thesis: the creation and embodiment of new identities, and the enhancement of a sense of agency in the children who participated in the playbuilding programme. It serves to highlight how participation in theatre-making complements and bridges the gaps in the children's relationships with their families and schools. Heath (2001) explains that a creative outlet that is independent from academic or home environments provides youth with the space to recreate an alternative identity for themselves. The lack of affiliation to both families and schools provided a fertile ground for the children in this playbuilding programme to discuss and evaluate what was happening in both settings.

This chapter reads like an ethnographic story with vignettes to illustrate the uniqueness of the events that had occurred, and Stake (1995) suggests such episodes in the overall programme shaped the interpretations of the data analysed. The emphasis here is on the drama activities that had been employed and my observations and reflections of the responses and behaviours from the participating children, and what interpretations were drawn from each vignette.

The children involved in the playbuilding project and their families were tenants in the cluster of public rental apartments ten minutes' walk from the VWO's office where we had our drama sessions. Their caregivers or parents qualified for the highly subsidized rental apartments because of their low/no income, and they were beneficiaries of financial and food assistance programmes from RSC.

Research Methodology

The central question to this research study was "How does participating in collaborative and improvisatory drama playbuilding processes enable a positive sense of self-efficacy in children from low-income families in Singapore?". Bandura's (1982) seminal research in self-efficacy suggests that it is the central mechanism to human agency, and it has correlations with a person's sense of confidence and identity.

Using the qualitative research approach, I studied the multifactorial influences on the children's sense of self-efficacy by empathetically looking at the stories that

emerged through the playbuilding processes. I examined these narratives from the children's perspectives, uncovering the stories they wished to tell and then retelling them through the research (Creswell, 2012). According to Stake (1995), "standard qualitative designs call for the persons most responsible for interpretations to be in the field, making observations, exercising subjective judgment, analysing and synthesizing, all the while realizing their own consciousness" (p. 41). This qualitative case study acknowledged that as the researcher, and facilitator of the drama workshops, I was engaged intimately in the journey with the children. I was the only facilitator for the playbuilding sessions, and I was actively taking notes during and after each drama session as my reflections-on-action, recommended by Schön (1983). My reflective notes and participant-observations were examined with data collected through other means to avoid biases of the researcher.

Data for this case study were collected through the following methods: reflective practitioner's journal, observation notes taken by research assistant, video recording of playbuilding sessions, semi-structured interviews with the children and community worker, and children's in-role writing and drawings. The data collected in this study were organized after each drama session and analysis began concurrently. Stake (1995) advises that analysis of data can begin any time after data collection has started and the process involves "taking something apart" (p. 71) and then putting it back together to paint a picture for deeper understanding. After each drama session, the data generated through the various means were carefully and meticulously organized into the different categories. Informed consent to the data collection process was obtained from the children's caregivers and the children themselves. The treatment of the data immediately after each drama session allowed "the gradual building of an explanation that is similar to the process of refining a set of ideas, in which an important aspect is again to entertain other *plausible or rival explanations*" (Yin, 2014, p. 150, italics in original). I examined the data by trying to "make sense of certain observations of the case" (Stake, 1995, p. 77) as carefully as possible by thinking deeply to understand the subjects being studied instead of aiming to fully describe the case(s).

An Introduction to the Children and Their Established Identities from the Playground

Before analysing and discussing the shifts in the children's sense of agency and identities, it is important to first understand the identities they embodied and the level of power they possessed as individuals and a collective body of the rental community. The first meeting with the children inducted me to the social hierarchy present within the playbuilding group. The children, especially the nine year olds and younger were compliant to the instructions and orders of two of the older children, Sha and Tin.

Sha and Tin were twelve and eleven years old, respectively. The children unquestioningly acceded to any commands given out by the duo, and there was an unmistakable air of respect and deference towards the two boys. Sha and Tin's identities as "leaders of the pack" were not made explicit to me. However, it was evident through the interaction amongst the children.

Hemming and Madge (2012) suggest that social identity depends on the person's "social location within society" (p. 40). Zaty, the youth worker from RSC explained that the social standing of the children correlated with "connections and appetite for risk" amongst the playground community. Sha and Tin were better connected with some adolescent boys in the neighbourhood who offered protection to the younger children. Some of these older boys engaged in risky behaviours and were being monitored by the police. Zaty further explained that the adolescents were especially attractive to the pre-teen boys and girls who aspired to be like them. There was a strong sense of admiration when the older boys in the drama programme talked about their adolescent peers. According to Hemming and Madge (2012), pre-adolescents might have their social identities crafted to belong to the social group(s) that they wished to belong to and thus find commonalities between themselves and the teenagers in the community. Sha and Tin's social identities were crafted to emulate the teens to gain acceptance and recognition, and this "playground identity" was carried into the drama workshops with me on the first day. The boys' social identities bordered on being disengaged from school and its activities, and centred on exhibiting risky behaviours, similar to Caldwell and Vaughan's (2012) claims of how youth in highly disadvantaged settings behaved. I reflected on the hierarchy present in the room and made a mental note to trial variations of using tableaux as a playbuilding tool instead of relying on verbal offerings from the team.

The low level of English-language ability combined with the hierarchy of the statuses amongst the children prevented a democratic way of engaging in play-building processes where everyone shared equal rights to contribute their ideas and voices. Neelands (2009) argues that participation in theatre-making experiences provides "the social and egalitarian conditions of ensemble-based drama" (p. 182). However, due to the ingrained social statuses and identities the children carried over from the playground into the playbuilding programme, equality and democracy within the group of children were absent when the programme first started.

Hughes and Wilson (2004) suggest that "young people look outside of the family and school to explore and form identities and many rely on their peers for support" (p. 59). Sha came from a single-parent family with limited access to his father, a parent whom he was very close to before his parents separated. Tin and his younger siblings spent most of their time on their own as both their parents were employed in several jobs to make ends meet. Sha and Tin were both not interested in school although they attended it regularly. These two young boys had shown appetites for risk, having attempted petty thefts from a minimart across from the RSC that sold household goods and dried food items like bread and biscuits. They had also displayed "courage" when they did not walk away or bow down when faced with potential fights with children of their age.

Hemming and Madge (2012) suggest that there is a relational nature to identity. Individual identity and social identities are interdependent and "are formed through interaction between our core selves and others in society, shaping our identities through participation in social structures" (p. 40). In this study, the focus is on how the children's individual and social identities could shift, and if they do, through the playbuilding processes. I found my own answers to these questions very soon within the first phase of the playbuilding programme in the research study, and my understanding was further crystallized through the multi-angled data collection methods I had employed.

I recognized that there was an obvious need to experiment and limit the use of verbal suggestions and discussions between the children and focus more on physical drama work for a start to create an equal playing ground. When the children realized that they all had equal opportunities to share stories and contribute to the playbuilding process, they engaged actively in the multi-perspectives and multi-modal ways of looking and thinking through the fictional contexts created which Kukla (1987) argues is missing in a regular classroom setting.

On the first three days of the playbuilding programme, I was constantly fighting against some unseen pre-cast rules that stipulated who the leaders in the drama group had to be. My aim to build leadership identities in the other children, by putting them in charge of small tasks to build their confidence for new roles met with repeated failures. In my reflection journal, I acknowledged that I had used the wrong methods to build leadership identities in the children. Empowering them and labelling them as leaders did not help them attain the respect and cooperation from their peers. Leadership identities that had been established according to the rules in the playground were not malleable through my intervention as I did not belong to the playground community, and thus had little influence over the social identities of the children. I concluded that the playbuilding processes needed to provide opportunities for the children to assume leadership identities organically and with the support from their peers.

Collective Tableaux: An Egalitarian Method to Share Personal Stories

Tarlington and Michaels (1995) advise the facilitator in a playbuilding project to employ all sensory capabilities to observe and understand deeply the community that is working together. My observations and ethnographic understanding of the community facilitated the playbuilding process and helped us construct meanings for the work produced. I was keenly aware that we had four days in phase one to build a play together and I had wanted the product to be inspired by a topic that resonated with them. Theatre making could start with a stimulus of any form (Neelands, 2009; Oddey, 1994; Saxton & Miller, 2013; Tarlington & Michaels, 1995), and the children were interested to create a performance based on stories

about their lives and their environments. Therefore, I suggested the children showed me what they liked to do at the playground and what usually happened there.

The children were invited to step into the performance space one at a time to offer a frozen image. The other children would study the image offered by their friend and join in the picture, further building the context of the tableau. This method of creating images facilitated an egalitarian method of working amongst the children as everyone had the opportunity to contribute to the creation of images without being subjugated or silenced by a pre-cast social hierarchy.

Sha and Tin simultaneously jumped into action. Without discussing, they both entered the performance space and took on the pose of two people standing but each seemed to be holding something in one of their hands. The arm with the invisible item was swung out towards the back like a bowler ready to throw a bowling ball towards the pins. When they noticed the image the other person had offered, they started laughing and speaking in a flurry of Malay, they shifted slightly and faced each other while still committing the same pose. More boys joined the image, standing either next to or behind Sha and Tin. Slowly, the picture took the shape of two groups of people staring at each other and everyone was holding something in their hands. Their facial expressions, in between giggles and nervous laughter, were mostly serious and even fearsome. Dana reluctantly joined the tableau as the only girl in the picture and sat at one end behind one group of boys. Tin and Sha explained excitedly about a face-off between two teenage gangs that they had witnessed in the playground the week before. They said the teenagers were holding glass bottles and parangs (machetes used in East Asia) and they were getting ready to fight.

According to the children, the fight did not happen. The neighbourhood was constantly patrolled by police officers either in cars or by bikes. Kha said the youth "wasted some time talking and talking" and then they dispersed when a police car stopped by the roadside.

Cahill (2010) argues that "the norms and expectations of the society direct the world of the character" (p. 161), and the storying process could have further engendered stereotypes and culturally accepted codes of conduct amongst the children. I was conscious that Sha and Tin had chosen to play the gang leaders in that tableau, not dissimilar to the social identities they adopted, and the other boys in the programme played the gang members, just like how they complied with the identities of followers in reality. Even though it was presented as a re-creation of an actual event, I reflected that evening that I might not have fully diverted my participants from the dominant rhetoric of the playground.

Depending on the life experiences and cultural backgrounds of the participants, a myriad of stories could surface and that had great impact on the process of creating a play and the resulting product (Bundy, 2013; Oddey, 1994). On the contrary, I did not witness a myriad of experiences and stories from the tableaux offered by the children even when they were asked to offer images of recess time in school or activities at home. The children performed images that were homogenously negative even though the context might differ slightly. Their identities were limited to the roles they held as residents in a low-income neighbourhood and their lived

experiences. Cahill (2010) and Bundy (2013) explain that the roles participants in drama choose to play can be limited to the ones they are most familiar with in their lived experiences. Many of the children in the playbuilding programme could not see alternatives to the social and individual identities they could embody or perform.

Making New Rules—Shifting Identities

The children's initial individual or social identities connected to their social location within the playground community started to shift during the playbuilding process. The rules of the playground still applied; Sha and Tin were still the big brothers, but it was evident in specific instances that the children experimented with new identities and the resulting success boosted their sense of self-efficacy and agency. In this section, I discuss the events in the playbuilding process that facilitated these changes.

The children's ingrained identities from the playground were challenged throughout the playbuilding processes when some of the children took on roles that disaffirmed the ones they played in the playground. The aim to create a play for an audience that held exceptional importance to the young story-makers prompted proactive behaviours in the children as they wanted to ensure that the final product was of value and quality to the community they wished to show. Nicholson (2014) suggests that shifts in identity are results of "a reconsideration of the concept of narratives and its significance in everyday life" (p. 65). In this research study, I witnessed that these "shifts" in the children's identities were sometimes more obvious than at other times. In response to the narratives being presented and examined during the playbuilding process, the children started to create and adopt alternative identities. The awareness of alternative identities also affected how the children saw themselves as agents of change later on.

Forming a Collective Identity Through Playbuilding

According to Sinclair and Kelman (2013), "belonging to a community can give an individual a sense of agency and identity, especially when there are opportunities for the community to express itself and to be affirmed" (p. 33). However, there is little evidence to suggest if the children had shared a sense of community as young people of the estate. A sense of community was instead fostered over the four days of the playbuilding process and through this collective identity, it further encouraged the children to adopt a higher level of agency for themselves to effect positive changes in their lives.

The sense of community formed through the drama programme was unique to the participants, and it was isolated from the other identities formed outside of the

drama space. Regardless of their age or the affiliations outside the playbuilding programme, each child was given the platform to contribute stories that they wished to include in the larger narrative for the neighbourhood's consumption. Each offer of story through the frozen images performed was examined and discussed as a group during the playbuilding process. We pondered over how images and stories offered by individuals or groups would tell the story of life in *Sen Ling* and represented the symbolism of the narrative the children wished to illuminate for their audience in an aesthetic form. The democratic nature of playbuilding processes facilitated the removal of the playground hierarchy, which confined the children to an established line of power and agency.

The frozen images offered on the first day of the drama programme were a jumble of personal lived experiences or as collective users of a communal space. Through the sharing of these stories, the children had visually strung an element of commonality in the narratives they had chosen to present to the group: vignettes of violence, bullying and disengagement from the school system. In the subsequent days of more tableaux making and playbuilding, it became obvious to the children and me that these young people shared common desires and aspirations. They disliked the negativity in their environments but they felt powerless and had resigned themselves to the inevitable consequences as young residents in a low-income neighbourhood.

The children were not hesitant to perform or tell negative stories of punishment and defeats in fights. They performed these stories matter-of-factly without reservation, and the members of the group received the visual or aural information without any visible trace of judgement. For example, at my request to show images of recess time in school, Kha offered a tableau of him being caned while Ruta showed himself being punished to stand in front of the school's general office. Kha explained that the discipline master had caned him because he elbowed a boy who pushed him during recess, while Ruta shared that he was made to stand during recess in public because he was "day dreaming in class". The daily drama workshop was not only a safe space for them to unload stories about themselves, but it was a place there they could tell stories which they otherwise did not have an audience. Kha blandly dismissed my question if his mother knew about the caning. He said his mother did not care. I draw a parallel of this sharing by the children with Kandil's (2016) proposition that participants open up their struggles because "their initial investment was to build community with one another, and to find a place where they could feel accepted and their experiences valued" (p. 203). The final performance of this collection of personal and shared narratives was an opportunity to foster a deeper sense of this community identity amongst the children because they had a platform to express themselves and be recognized and affirmed by the audience as theatre makers which Sinclair and Kelman (2013) had asserted as effects of belonging to a community.

Heath (2001) suggests that new identity builds on "feelings of uniqueness or special qualities that set them apart from other such entities" (p. 142). The sense of belonging as theatre makers imbued in the children a different sense of pride and identity. Sinclair and Kelman (2013), however, warn that the feelings of

"uniqueness" may also highlight the problematic nature of "community" as a construct (p. 32). The children embraced the new community identity they had formed doing drama and performing together, and it was unique because they had the power to create and curate stories to share with the larger community and an enhanced sense of agency to make changes to the rhetoric of the community in their narratives. It was a huge concern on my part how this feeling of uniqueness and sense of community could be sustained once the thirty-two-hour drama programme ended.

The following example will further demonstrate how the community identity was crystallized through the unique experience of participation in the playbuilding programme. On the third day of the workshop, I met Kha and his friend in the car park just before the workshop started. After Kha's introduction, I asked the new boy if he was going to join us for drama class that day. Kha was quick to reject my offer on his friend's behalf. He said, "No la, teacher, he cannot join. He don't know what we do already, how to perform? *(sic)*".

Kha's immediate and deliberate exclusion of his friend from the drama programme was a way he was protecting his identity as a member of this drama group. When I pursued this topic with Kha during the break, he explained that his friend would not understand the things we were doing in drama class, things like "how we sit in a circle, the freeze picture and the games we play". This reminded me of Kandil's (2016) explanation that a bond would have been created in the playbuilding community when participants "witnessed perspectives on the difference and similarities of their collective lived experiences" (p. 202). Neelands and Nelson (2013) expound that a community can be formed through the playbuilding experience when the level of trust grows within the group of theatre makers. They argue that the sense of community that forms promotes the feeling that "one is part of a readily available and supportive structure characterized by belonging, connectedness, influence, and fulfilment of needs" (p. 20). Kha's friend did not participate in the playbuilding process, and he was not privileged with an insight into the struggles the playbuilding community faced. The shared and collective lived experiences of the children in the playbuilding programme had differentiated them from their friends outside of the artistic journey.

While Kha used his friend's ignorance as the reason, there was also a clear sense of protection and pride Kha had in his association with the drama group. Kha excluded his friend from his newly formed community by telling his friend to "come and watch the performance la *(sic)*" on Friday evening with everyone else. Kha rejected my offer to explain to his friend what we had been doing in the drama programme to allow him membership into the group. He told me, "no need, no need. He come watch, he know. Don't tell him. Our secret, cher (colloquial term for teacher) *(sic)*". Stokrocki (2010) advocated that "art can help (youth) find and transform their identity, and seek powers beyond only that of beauty" (p. 73), and Kha had demonstrated how his participation in the drama programme had helped him to find identity with a new community.

Heath (2001) cautions that the sense of belonging to a community could "be both 'self-defining' and 'self-limiting'" (p. 33). Kha's condescension towards

his friend drew a divide between them. While this new identity had allowed Kha a departure from the playground identity he held, one that was not good enough to be part of the adolescent gang, it also had become problematic. Kha had used a yardstick based on his judgement of capabilities to exclude a friend into the new community construct, very much the same way he had been denied membership at the playground. Kha's sense of belonging to the new community and the opportunity to express himself in a contradistinctive manner and be affirmed ascribe to Sinclair and Kelman's (2013) claim that membership to a new community could give participants in arts programmes a new sense of identity and agency.

Oddey (1994) suggests that participants in a playbuilding project form a sense of ownership when they have "identif(ied) a particular style, a unique language or vocabulary, shared beliefs, or a commitment to why a company wishes to make a specific theatrical product" (p. 9). In my research study, the children had formed the collective identity through the process where they shared personal stories and provided each other insights into moments of their lives. The final story performed on the last day of the programme was built through a careful curation of tableaux offered during the playbuilding process to present the young people's aspirations for their neighbourhood.

Missing a Sense of Agency

On the first day of the workshop, the children educated me through the images created that bullying was a common and unavoidable occurrence at the communal space. I challenged them to think of how the negative situation could improve and was met with a unanimous and resounding "No!" from the children. Tin shouted, "Cannot change la! Always like that one la! *(sic)*".

The children's responses correspond to Cahill's (2010) argument that the "norms and expectations of the society direct the world of the character" (p. 161). They disagreed that as common users of the playground, they had agency over the management of the relationships in the space. Ewing (2013) highlights that how a person interprets the world depends on the multi-factors ranging from religion to socio-economic backgrounds to genders and upbringing, and this was evident in how the children explained why changes were impossible. The children appeared to be locked into the common rhetoric of the playground in the low-income estate— violence and browbeating were par for the course.

After reflecting on the attitudes of the children when confronted with bullying issues in the communal space, I attempted to scaffold the process of encouraging multiple perspectives. I asked for volunteers to make changes to the image Ruta had offered. The eight-year old was standing rigid to the ground with his hands clenched into tight fists and staring at the perpetrator who had just hit his friend. I asked if someone could show what Ruta could do in that situation to help Aysh who was crouched on the ground as the victim. Sha volunteered. He turned Rutra around and changed his image from one that was facing the perpetrator to one that was running

away. Sha proudly explained that Ruta could run away and "get more gang to come and help" and beat the perpetrator up. Once again, Cahill (2010) and Ewing's (2013) theory on how the views and understanding of the world shape an individual's perspectives and directions in life resonate with what was happening in the playbuilding process. Sha's response to my invitation to propose an alternative to the situations of bullying in the drama refracts directly his disposition in reality, a state Vettraino, Linds, and Jindal-Snape (2017) explain as the experience of belonging to both the fictional and real world at the same time. Sha educated me to the survival tactics of the playground, "If people bully us, then we find more people to bully them back *(sic)*!".

I ended the first day with nominal success in trying to get the children to think of alternative ways to look at or resolve their problems. They did not think it was possible to make improvements to the current situations they were facing. They impressed upon me how powerless and hopeless they felt as young people in the neighbourhood, and how inevitable these events were. The children's sense of agency was low and my verbal encouragement to identify alternative ways to negate the challenges they had were weak.

Finding a Way Out of the status quo—A Shifting Sense of Agency

On the second day of the workshop, the children were presented with the task of introducing life in *Sen Ling* estate to the President of Singapore if he were to visit. The children offered an image of the arrest of illegal money lenders in the neighbourhood. We launched into a discussion of why loan shark activities were common in the neighbourhood and what happened when a borrower defaulted on payments. The children reflected that it was not safe for them to go out at night because there were "bad guys around the neighbourhood". The loan shark problem was not an issue the children could resolve at their age or with their abilities. However, as the facilitator of the programme, I had the responsibility of exploring with the children alternatives to seeing borrowing from loan sharks as the rhetoric of the community.

Hughes and Wilson (2004) argue that adolescents are able to explore the world through participation in theatre processes, and it helps to provide new perspectives for them. The children in the drama programme had offered the loan shark story as a response to my proposition of showing a slice of life in the estate to the President. The image that resulted was what Cahill (2010) contends as "replications of dominant storylines" (p. 161), a realistic display of bona fide experiences. The children and I worked together to take the narrative of the loan shark to a different trajectory. We examined the circumstances that led to borrowing from loan sharks. Kha offered an image of a man squatting and smoking. He explained that the man was jobless and he had to borrow from the loan sharks to feed his family.

From Kha's image, the children entered into a process to explore alternatives for the jobless man. Tin sculpted Kha's image to one that was standing but bent over at a table. Aysh responded excitedly, "He cleaning tables at the coffee shop! *(sic)*". The children agreed enthusiastically, and we explored a few more images of how the man could help himself or seek help for his financial situation.

I did not intend to make light of the jobless situation confronting many of the adult residents in the rental community. The intention was not to impress upon the children that there was a magic wand in life that could dramatically and conveniently improve a person's circumstances. Instead, the process was crucial for the children to see the "what if" and "as if" in Peter's (2009) description of how participants' understanding could be extended beyond re-enactment of the realistic and inevitable in drama work. He expounds that participants could be challenged to "resolve problems in analogous real-life situations in drama" (p. 10). I had chosen to lead the children on a journey to resolve the loan shark problem by identifying ways that borrowing from illegal moneylenders could be avoided.

According to Tsang, Hui, and Law (2012), one of the factors that affect self-efficacy is imaginal experiences—the ability to imagine and visualize possible outcomes to an endeavour and identifying methods that would assist in negating challenges that hinder success. The re-sculpting of the jobless man tableaux brought the children on a reflective journey to identify possible obstacles he was facing, and then imagining and visualizing what alternatives could be offered to the narrative of joblessness. The children distanced themselves from the inevitable outcome of borrowing from loan sharks to examine the circumstances leading to the economic crisis confronting the jobless man. I agree with Nicholson (2016) that the aesthetic distance held in the drama permitted the participants to remove themselves from the world they are familiar with so as to re-understand it. Once the children were detached from their preconceived notions that illegal borrowing was inevitable, they were able to reconstruct the social reality the character was facing prior to borrowing.

Peter (2009) proposes that in drama, children take on different social roles, which can enable them to make links between fictional and realistic events through role play. This was evident in the research study as the children agreed that the first image Kha offered of the jobless man squatting and smoking was lacking a sense of agency. The children offered more tableaux to show plausible routes the man could take to overcome his jobless status. They suggested he could work as a cleaner, in MacDonald's or sought help from RSC. The vicarious experience is one of the important sources of influence on a person's sense of self-efficacy (Bandura, 1982; Buckworth, 2017; Gangloff & Mazilescu, 2017). By watching their peers offer alternative means to end the jobless status of the character, the children were inspired to reflect on the ways they viewed problems. The porosity of the fiction-reality boundary struck many of the children. They understood that the reality in many of the families was like the man squatting at the coffee shop but the fictional representation of the man finding employment could also find its way into reality. However, the children agreed that there must be some sense of agency in the man before it could happen and they offered suggestions to proactive behaviours.

Discussion

Through the playbuilding processes, the children explored and adopted identities that they might not be conscious of before their participation in the playbuilding programme. The narratives offered by the children in the process demonstrated that school, residential neighbourhood and family were the dominant cultures they were familiar with. Within these three environments, the roles and identities performed by the children had remained largely similar. The young people were constrained in their roles as under-achievers and at times as trouble makers in the academic environments, and in the neighbourhood, they were children who wasted their time at the playground. In this section, I discuss the role drama played to plug the gaps between the environments the children operated in to offer the space for them to experiment with identities that were previously not available. I also draw conclusions from the behaviours and dispositions exhibited by the children to suggest how participation in a drama programme was crucial in allowing young people to develop new positive identities.

The children's performance for an external audience provided the opportunity for the children to perform new identities adopted in the drama process. The children took on various roles and responsibilities on performance day and these identities deviated from the ones the children performed in academic or familial environments. The public performance of the new identities created a sense of pride in the young people, which translated into a heightened sense of efficacy as they performed their roles and later their show with pronounced ownership. Hughes and Wilson (2004) propose that when youth participate in high-quality youth theatre programmes, they become invested in both the process and the product through the demands of the skills and capabilities developed. Bruun (2017) furthers this proposition and reports that regular participation in a drama programme results in escalated levels of confidence and spontaneity.

The drama programme had provided the platform which Heath (2001) has called a "third space" for the children which bridged the family environment and academic settings. Through their participation in the playbuilding process, the children became more aware of themselves and their responses to the events in their lives. This finding is congruent with Hughes and Wilson's (2004) theory that young people establish a more positive sense of identity after they had negotiated difficult emotions through the playbuilding, and "Performances can be an important outlet that can help young people express and manage difficult feelings" (p. 64). Mackay (2009) agrees and explains engagement in the arts can help the participants negate issues of social isolation, depression and alienation. Therefore, participation in drama could facilitate a process of change for the young people as they experience transformation through the artistic journey, and this helps them to connect with the larger society (Heathcote, 2013; Heikkinen, 2016). The third space in this study took the form of the playbuilding programme, and it provided the avenue that was absent in academic settings which Heath (2001) argues as essential to the lives of every young person.

The narrative that was performed reflected the children's understanding of their community. Additionally, it also conveyed their desire for change and echoed their current sense of emotional and mental states—a positive sense of unsettlement that was seeking new ways of re-seeing their world. Kandil (2016) argues that the process and product (if any) of a drama programme with a community must consider the changing needs of the participants. In this playbuilding programme, the children's needs had shifted within the first four days of the drama programme, and they became aware of how they would like to challenge the status quo in their environments and lives.

Kandil (2016) and Prendergast and Saxton (2013) explain that participation in drama builds a sense of agency in the participants because, as a collective unit, the young people have to decide how they should present their narratives and what is the best way to move their performance forward. The children in this study saw the need to demonstrate plausible positive outcomes to the common negative narratives of the community. During the workshops, the children did not necessarily have a plan on how they wanted to devise their alternative narratives or what the alternatives were. In that way, the children's behaviour corresponded to Bandura's (1982) and Buckworth's (2017) notion of self-efficacy where they felt motivated to take on the challenge despite not possessing the knowledge to counter any potential challenges. Membership in a drama process that was unrelated to academic and familial conditions provided distance for the young participants to the cultures which they spent a large part of their time in. The involvement with a group that was focused on a creative process and with a public output challenged the identities they performed as perceived by the community that watched them. It was a means for the pre-adolescents to change perceptions and a clean slate which they could use to redevelop new identities for themselves when they give back to the community in an artistic manner. They made known and available their talents and new understandings to the larger community as a way of re-being and re-introduction of selves.

Implications to Education

Playbuilding and other drama processes can be imbued into the primary and secondary school classrooms in Singapore to create the space for our students to examine their identities and share perspectives. The *Programme for Active Learning* (PAL) in primary schools and *Values in Action* (VIA) in secondary schools in Singapore are two possible platforms for the inclusion of drama activities and processes. The two programmes in the primary and secondary classrooms are intended to broaden students' repertoire of skills and knowledge outside of academic subjects and also to infuse opportunities for social-emotional learning. Drama as a pedagogical tool and programme supports the PAL and VIA curriculum by engaging students in an art form that encourages reflective, analytical and imaginative behaviours. The journey in creating work that is to be represented

aesthetically for self and public discussion required the young people to dig into their personal and lived experiences. Bruun (2017) explains that this process "provided the opportunity for aesthetic reflection and transformation using the whole self – head, body and feelings" (p. 232). Heikkinen (2016) agrees and adds that young people are supported through the drama processes to examine themselves "from the outside, and start asking questions as to why (they) produce the things (they) are producing" (p. 38). Through the use of drama in the classroom to support and facilitate the social-emotional learning of our students, we as educators shift away from teaching values and behaviours in a didactic manner. Instead, we offer our students the opportunities to examine their attitudes and dispositions through fictional contexts in a safe and controlled environment.

For example, the children were proud owners of the final narrative and learning process in my study. Sha summed it up very well when he spoke on behalf of the team at the end of the performance, he said, "Thank you Ms Jennifer for teaching us drama, teaching us how to make stories and perform. But the stories is ours and we make it *(sic)*". Qid added, "I want do drama again because I tell stories and I make performance with my stories. It is special because I do the story I tell *(sic)*".

Conclusion

The playbuilding programme created the time and space for the children to examine pertinent issues in their lives which they had assumed to be inevitable outcomes as residents in a low-income estate. Through the playbuilding process, the children became artists who were engaged in an endeavour to produce and perform a play to an external audience. However, subsumed within the artistic journey was a process of re-understanding, re-imagining and re-inventing the environments they lived in and how individually and collectively, they had the power within them to make changes, even small, subtle ones, to improve the state they were living in.

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Part VII
Synthesis

Chapter 16
Conclusion: Evidences of Artistic Thinking in the Schools

Pamela Costes-Onishi

> *No experience of whatever sort is a unity unless it has esthetic quality.*
>
> John Dewey, Art as Experience, p. 40

Abstract This chapter synthesizes the salient findings of the studies in this book. It argues how the arts can become a resource for educational theory, research and practice. It found that engagement with the arts remains the optimal response in the effective nurturance of skills, dispositions and competencies needed in the education for the future. Placing centrality to artistic thinking in the schools means teaching learners to acquire the habits of mind that lend aesthetic quality to all experiences inside and outside of the arts classrooms. Acquiring the ability of imbuing everyday experiences with aesthetics will develop lifewide, lifedeep and lifelong learning.

How do we objectify personal experiences and thoughts? This book pursued this question, and it did it through a systematic investigation of the artistic processes in order to establish the centrality of the arts in breathing vitality to teaching and learning. In more ways than not, the arts and their ensuing products are embodied evidences of these personal experiences and thoughts, and thus, direct engagement with them is the absolute pathway to achieve that unity of experience that Dewey (1934) refers to. Engaging with the arts infuses the activities in life with heightened meanings. In short, the arts, inclusive of its processes and products, allow the mundane to be experienced exceptionally, providing gateways and pathways for deeper introspection of the self in relation to the world. The arts can lend aesthetic quality to experiences in order to bring them to completeness, to a "special state of mind that is qualitatively different from the everyday experience" (Markovic, 2012, p. 1). This is akin to what Csikszentmihalyi (1990) refers to as "flow," that optimal

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experience "in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it" (pp. 16–17).

The chapters in this book, in revisiting the questions posed by Gadsden (2008) ten years ago, found that for the arts to become as a resource for educational theory, research and practice, evidences of artistic thinking as nurtured through the engagement with the arts are still the most optimal response. In the end, both teachers and students need to experience art in order to transform everyday (learning) experiences aesthetically. In going through this process, learning experiences, formal and informal, become not only meaningful but also enlightening as they see multiple contexts (cultural, historical, political, social, etc.) as both integrated and integral to the very core of their beings (i.e., the personal). When this has been achieved, the kinds of competencies and dispositions desired to prepare future-ready learners, or learners at any point in history who simply find that state of motivation and engagement in whatever they do, can be nurtured more effectively. Furthermore, as these "future" competencies and dispositions are implicit within the artistic processes, we can conclude that artistic thinking will come naturally. Ultimately, learners would acquire the habits of mind to lend aesthetic quality to all their experiences inside and outside of the arts classrooms and thereby achieve lifewide, lifedeep and lifelong learning.

Arts as Resource for Educational Theory, Research and Practice

This book sought to answer the primary question "How is research in the arts moving in the direction that would provide conclusive evidence of their centrality in nurturing skills, competencies and dispositions needed for the future orientations in education?" The synthesis was initially organized through the reframed questions from Gadsden (2008), after ten years: What kind of empirical work was conducted and what else should be done? What are the questions that were framed and what else should we be asking? What are the contexts we have studied and with what approaches? What interpretive lenses have emerged, and with what accuracy? What are the ways (e.g., approaches, continua) that have been used to learn about, chart, and understand change? The answers to these questions were further re-organized to present more meaningfully how the education *in* and *through* the arts are used as an important resource for educational theory, research and practice.

Theory

Not all of the chapters in this book contribute to educational theories. However, there are significant insights that offered suppositions or ideas in order to explain how the arts in education function to develop artistic habits of mind that support cognitive and affective learning. One of them would be on how direct engagement with the arts enhances the capacity for self-reflection, self-regulation, self-transformation and self-emancipation relative to present and future social realities. Several chapters support the theory that engagement in the arts enable introspection of the self in relation to existing circumstances, which empowers learners to take agency of present and future identities or situations, specifically among at-risk students (Heath, 2001; Heathcote, 2013; Heikkinen, 2016; Hughes & Wilson, 2004; Laiho, 2004; Lorimer, 2011; Ponder & Kissinger, 2009). Jennifer Wong further affirmed the theory that playbuilding serves as a third space where students can negotiate difficult emotions and establish a positive sense of identity. This is similar to how Deanna Paolantonio found that dance education when approached using its inherent playful processes could increase female students' self-esteem and positive body image. Imelda Caleon through a systematic review of the literature cited theories on group music-making interventions that show the mechanisms that have seen self-transformation of socially and emotionally at-risk students. She found that existing literature shows how participation in music activities help participants become more self-aware, capable and productive, especially in ensemble settings. Similar to Wong and Paolantonio, participation in group music activities, through self-affirmations in performing on instruments, assists the youth to make sense of their life experiences and to self-regulate during stressful situations. The results of Caleon's systematic review of the literature are supported by Helene Robinson who found how pedagogy and curriculum that leverage upon an arts integration model in which "students are engaged in all phases of the artistic process in environments that provide multiple means of representation, action/expression, and engagement," resilience and positive self-beliefs increase among at-risk students.

At the teachers level, the theory has been forwarded by Bee Lian Kehk that reflective practice is a form of artistic thinking, explaining how both teaching and the artist's process operate in highly contextualized and fluid environments which require in situ judgments to solve specific problems. Teachers, specifically art teachers wishing to nurture artistic thinking in the classrooms, must hone their capacities for critical reflection. The importance of critical reflection in teaching is in support of the theory that pedagogical content knowledge (PCK) or the ability to transform subject expertise into content of instruction (Shulman, 1986) is not sufficient for effective teaching (Adler, 1993; Calderhead, 1989; Hatton & Smith, 1995; Korthagen, Kessels, Koster, Lagerwerf, & Wubbels, 2001; Zeichner & Liston, 2013).

There are contributions which forward the theory that pedagogy structured on specific artistic processes develops artistic thinking and skills. Pamela

Costes-Onishi and Imelda Caleon found that the structures of learning from community music (oral/aural, authentic, active, creative, critical, pattern-based, collaborative) when translated maximally in every lesson within a given unit enhance critical musicality and artistic thinking. The artistic thinking referred to parallels the studio thinking (Hetland, Winner, Veeneman, & Sheridan, 2013) of Observe, Reflect, Engage and Persist, Stretch and Explore, Develop Craft, Express and Envision. Similarly, within the context of informal learning in the classrooms, Maria Varvarigou strengthened the theory that group playing by ear develops twenty-first-century competencies such as personal and collaborative creativity, risk-taking and problem solving; informal learning in groups also enhances the well-being of students through increased sense of competence, autonomy and relatedness. Both theories forwarded by Costes-Onishi and Caleon and Varvarigou specifically contribute to the theory on the positive impact to cognitive and affective learning of group music making, with their emphases on informal learning processes in community music, including traditional and popular music.

There are contributions that offer frameworks for pedagogy, which at the same time provide a theory on the impact of the arts to learning. Julia Marshall proposed an arts inquiry integration framework, which has at its core "the premise that creative inquiry and learning can promote a holistic understanding of the world (integration) and deep understanding of oneself (metacognition)." The arts inquiry integration theory to learning stems directly from contemporary arts processes, specifically arts-based research. Likewise, the frameworks offered by Robinson and Costes-Onishi and Caleon, offer theories for increasing student achievement, domain-specific and domain-general, respectively, using arts-based processes. Finally, Marina Sotiropoulou-Zormpala provided a framework theorizing that "participating regularly in aesthetic teaching activities could develop a habit of connotative, interpretative and creative processing of the taught material" and that systematic implementation of aesthetic teaching "has a positive impact on cultivating multiple ways of thinking about what children are learning…as well as their meta-cognitive thinking."

Research

The research methodology most widely used in this book is more qualitative than quantitative. The reason is evident in the findings which highlight embodied teaching and learning in the arts. The empirical research in the chapters shows that the impact of the arts in education should be largely at the personal level and that we can uncover these personal perspectives and achieve impact more effectively through qualitative methods. Qualitative research allows subjectivities and personal interpretations of situations to surface. As Stake (2010) stated, "the qualitative approach is equally distinguished … for the integrity of its thinking. There is no one way of qualitative thinking, but a grand collection of ways: It is interpretive, experience based, situational and personalistic" (p. 31). There are many parallelisms

to the artistic process and qualitative methods, especially if we are coming from the perspective of Dewey (1934) that art is an experience that is a heightened expression of the personal as it connects holistically to the ordinary world in its complexity. As explained by Stake (Ibid.),

> I have remarked already on the epistemology of qualitative researchers as existential (nondeterministic) and constructivist. These two views are correlated with an expectation that phenomena are intricately related to many coincidental actions and that understanding them requires a wide sweep of contexts: temporal and spatial, historical, political, economic, cultural, social, personal. Thus the case, the activity, the event, the thing is seen as unique as well as common.

Although, contrary to Stake referring to qualitative researchers as non-interventionists, most of the empirical works presented here are interventions in that they offer frameworks, pedagogical and theoretical, thus instigating some form of activity to study the impact of the arts in education. It is a necessary course for research because the arts have claimed promising effects on cognitive and affective learning due to their inherent qualities and processes. As most authors here would argue, artistic processes and thinking are implicit and therefore need unpacking in research or practice to determine their impact in education. Although statistically significant self-report surveys, for example, provide rich information on perspectives at a grander scale, these subjectivities can be measured more rigorously through methods, such as experimental, in order to minimize "chance" or correlations in the findings. As it is, the research presented in this book focuses on mechanisms and outcomes, such as multifactorial influences to self-efficacy. There is still heavy reliance on data such as reflective logs and field observations using participant observation.

The various areas explored and investigated in this book offer insights into multiple topics in educational research. The topics include:

- Teacher professionalism, artistry and identity (Chua & Seow; Kehk);
- Informal and formal learning, such as museum as an alternative classroom (Salas) and neighborhood as learning spaces (Wong);
- Arts-based processes, such as collaborative music making (Costes-Onishi & Caleon; Tan & Costes-Onishi; Varvarigou) and aesthetics inquiry (Marshall; Sotiropoulou-Zormpala);
- Initial teacher education (Kehk);
- Teacher change through research inquiry (Chua and Seow);
- At-risk students and the arts (Caleon; Robinson; Wong);
- Collaborative learning (Costes-Onishi & Caleon; Robinson; Tan & Costes-Onishi; Varvarigou; Wong);
- Critical thinking and creativity (Carino; Costes-Onishi & Caleon; Tan & Costes-Onishi);
- Play-based learning (Paolantonio); and
- Arts integration and metacognition (Marshall; Robinson; Sotiropoulou-Zormpala).

Contributions to methodology include:

Systematic review (Caleon; Chua & Seow);
Case studies (Carino; Kehk; Tan & Costes-Onishi; Varvarigou; Wong);
Discipline-based art education (Salas);
Participatory Action Research (Paolantonio);
Arts-based research (Marshall; Sotiropoulou-Zormpala); and
Design-based research (Costes-Onishi & Caleon).

The chapters also contribute to research from the following perspectives:

Beginning teachers (Kehk; Robinson);
In-service teachers (Chua & Seow; Costes-Onishi & Caleon; Robinson; Tan & Costes-Onishi);
Higher education students (Carino; Varvarigou);
K-12; Primary students (Marshall; Robinson; Paolantonio; Tan & Costes-Onishi);
Secondary students (Costes-Onishi & Caleon; Varvarigou); and
Early primary students (Robinson; Sotiropoulou-Zormpala).

The authors surfaced certain gaps in arts /in/ education research. These gaps need to be addressed in teaching in order to achieve the learning outcomes desired as pursued in this book. Generally, the authors call for more research needed in the areas that their works have already addressed. Costes-Onishi and Caleon and Maria Varvarigou called for more studies on pedagogical frameworks stemming from the authentic processes of community music (traditional and popular), while Tan and Costes-Onishi urged for more research to investigate if other performing arts would support the enablers of twenty-first-century competencies that emerged from their study. Specifically, in dance, Paolantonio highlighted the need to create more programs using inherent playful processes of dance that address the self-esteem of adolescent girls and studies that examine the effectiveness of such programs.

Drawing attention to alternate learning spaces, Salas and Wong called attention to a gap in studies that examine informal learning spaces as extensions of formal education in the arts. While Salas meant to address gaps on how informal learning spaces such as the museum can provide the kind of holistic education needed in a visual arts classroom, Wong drew attention on how formal education can structure curriculum based on playbuilding processes and achieve similar results based on its implementation outside the formal classroom setting.

Addressing teachers and teaching specifically, in visual arts, Kehk advocated the need for studies on the teaching practices of beginning teachers and the importance of reflective practice in bridging initial teacher education (ITE) and classroom teaching for a more effective increase in PCK. Chua and Seow noted the gap in the development of professional artistry of visual arts and music in-service teachers even if they engage in reflective practice through teacher inquiry. They reflected that the teachers needed more training in other research inquiry methods such as arts-based research in order to increase professional artistry.

Lastly, in the field of arts integration, Marshall, Sotiropoulou-Zormpala and Robinson raised the need for more contemplation and research on the ways the arts can be integrated and be made integral to educational reforms and transformation.

Practice

Most of the chapters in this book have value to practice. The frameworks offered for dance, music and arts integration inform classroom pedagogy. Caren Carino offered a learning structure using inquiry-based research to student choreography courses in higher education that promises the nurturance of critical and creative thinking skills. In her study, the approach allowed the students' experiences and cultural background to be the points of inquiry in their choreographies. In another dance framework, Deanna Paolantonio offered an alternative to the usual dance classes that are focused on technical skills through her "Work it Out" program for adolescent girls, 11–14 years old. In the Work it Out framework, students engaged in reflection about their body confidence and self-esteem using structured play through dance.

Bee Lian Kehk and Chua and Seow focused on professional development and the ways teachers could benefit from reflective practice and research inquiry. According to their works, embarking on personal reflection and inquiry allowed teachers to understand the way they teach and made their own practices better. This act of self-introspection, according to Kehk, enabled beginning teachers to make more effective connections between their initial teacher education (ITE) and classroom practices. Chua and Seow also attributed the changes in teachers' perspectives and pedagogical knowledge to teacher inquiry and reflection.

There are contributions to help in the practices of those working with students at-risk, defined by their authors as students who are disadvantaged economically, socially and emotionally, as well as those belonging to minority groups. Imelda Caleon's systematic review of the literature could help practitioners to learn more about how group music-making interventions are facilitated in order to achieve outcomes that address the well-being of adolescents. Jennifer Wong's chapter provided a process to implement playbuilding that allowed children to retell the stories of their current predicaments and to reflect on their capacities to make choices in shaping current and future identities. Helene Robinson provided the Arts Integration Engagement Model (AIEM) for teaching and learning that increased teachers' skills in delivering curriculum designed to facilitate cognitive and affective learning to culturally diverse students.

The chapters in music education provided frameworks for teaching and learning that facilitate twenty-first-century skills, competencies and dispositions. These frameworks also allowed teachers to nurture artistic habits of mind through classroom translations of actual artistic processes from authentic traditions. Maria Varvarigou outlined the informal learning processes from popular music and how they might apply to higher education; Leonard Tan and Pamela Costes-Onishi made

visible the natural creative and collaborative processes in bands for primary students; and Pamela Costes-Onishi and Imelda Caleon created classroom learning structures from community music.

The chapters by Julia Marshall, Helene Robinson and Marina Sotiropoulou-Zormpala are good resources for those seeking to integrate the arts in academic subjects. Marshall offered the Arts Inquiry Integration (AII) model using arts-based research for secondary education and Sotiropoulou-Zormpala provided a framework for aesthetic teaching for preschool and early primary education. As already discussed, Robinson's framework offered positive results for at-risk students.

Lastly, learning in alternative spaces such as the museum is evident in the chapter by Louise Salas. She discussed how the Museum Education Guide they have created could complement and strengthen visual arts classroom learning in basic primary and secondary education. This chapter can help practitioners to think about effective means to blend formal and informal learning spaces to achieve twenty-first-century outcomes.

Limitations and Future Directions

This book tried to represent different learning contexts and voices in arts /in/ education. While each art form is represented, there will always be many specific practices within each art domain that can further the evidences than what were already presented here. For example, there is a lack of study that focuses on the role of the artistic process in relation to computer technology and to other Science, Technology, Engineering, Arts and Mathematics (STEAM) applications. However, with disruptive technologies being a salient issue in education currently (Altmann, Ebersberger, Mössenlechner, & Wieser, 2019; Christo, 2017; Flavin, 2017; Magana, 2017), a future stand-alone volume can be dedicated to this burgeoning phenomenon.

The issues that cut across the arts domains and practices that were highlighted in this concluding summary could also be addressed more deeply in other volumes. For example, teacher education can be a full topic on its own with aesthetics teaching and aesthetics inquiry skills as scholarship directions. Aesthetics-infused inquiry learning is also a topic for future direction as inquiry-based learning (IBL) gains a renewed attention to developing future minds (Chomsky, 2015; Lazonder & Harmsen, 2016; Parker, 2011; Stanley, 2010). It will be worthwhile to feature more studies that probe into the relationships of inquiry and aesthetics to both teacher and student learning. It would also be of empirical value to pursue similar issues and topics across different contexts: cultural, student levels, learner abilities, environment (formal, informal, non-formal), etc. This would provide richer insights into what were proposed and discussed in this book.

Finally, there is still the gap on the issue of "transfer." The studies here have gathered evidence-based research that demonstrates how the arts can indeed nurture the kinds of skills, dispositions and competencies for the future but the question of

transfer, not just to other subjects but also to the workforce, remains to be fully addressed. Indeed, there is still a lot more room to locate the value of the arts in education, be that in the schools or beyond its walls for lifewide, lifedeep and lifelong learning.

Closing Thoughts

The empirical studies presented in this book answered the important questions by Gadsden (2008) on arguing for the relevance of arts /in/ education now and in the future. They provided evidences of artistic thinking in the schools through the various methodologies and frameworks offered. The authors forward the following skills, competencies and dispositions that are nurtured within the arts that are potentially transferable to any type of learning: the ability for self-reflection, self-regulation, self-transformation and self-emancipation; ability for heightened observation; disposition to engage and persist; ability and disposition to explore and experiment; ability and disposition to creatively express and think critically; disposition to perfect a craft; ability to envision beyond what is present in order to innovate; ability to work collaboratively with others; the disposition to constantly inquire deeply; the ability to synthesize disparate ideas; and the ability and disposition to be flexible thinkers in finding meaning and purpose in every situation. These skills, competencies and dispositions are inherent within the processes of art creation, and therefore, direct engagement with the arts can optimally nurture them. This means that education must be experienced aesthetically.

The studies do not lend themselves to short and testable results as with experimental studies or other quantitative methods, neither do they offer direct cause-and-effect findings, an empirical research weakness in arts /in/ education as pointed out by Winner, Goldstein, and Vincent-Lancrin (2013). Indeed, most of the studies here are qualitative, which require further investigations for the findings to evolve and for more cases to support evidences. As with any qualitative research, there will be more questions unanswered and more perspectives needed to support the findings. However, this book argues that what contributes to the effectiveness of the empirical research presented here are the ways arts-based queries and processes have been forwarded as essential to a purposeful and meaningful education. Arts /in/ education research needs a methodology that allows for subjectivities and multiple voices, in order for uniqueness to emerge from the seemingly unremarkable events in our experiences. The qualitative leanings of the authors reflect what Bresler (2015) brought to our attention about the arts and research: that close relationship between artistic engagement and qualitative methods. She stated, "My experiences underlying [qualitative] interviews, observations and data analysis were similar to aesthetic processes in their intensely active inner involvement, with minimal overt action" (Ibid., p. 3). Likewise, this book argues that educational experience must be personalized in order for its relevance to be appreciated and valued. Helping realize this in education through research will infuse that

motivation, flexibility and lifelong engagement in teaching and learning. This will nurture skills, competencies and dispositions desired for future-ready learners or simply just learners at any point in history. This is what it means to infuse education with the aesthetic experience. This is what it means to prioritize artistic thinking in the schools.

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