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.

Cambridge, UK   Richard Hickman
                                                                            Emeritus Professor
                                                                         of Aesthetic Development
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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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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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