Curriculum Integration in Arts Education:  
Connecting Multiple Art Forms Through the Idea of ‘Space’

Alfredo BAUTISTA, Liang See TAN, Letchmi Devi PONNUSAMY, & Xenia YAU  
National Institute of Education, Nanyang Technological University (Singapore)

Journal of Curriculum Studies  
DOI: 10.1080/00220272.2015.1089940

ABSTRACT
Arts integration research has focused on documenting how the teaching of specific art forms can be integrated with “core” academic subject matters (e.g., science, mathematics, literacy). However, the question of how the teaching of multiple art forms themselves can be integrated in schools remains to be explored by educational researchers. This paper draws on data collected at a secondary school in Singapore. The case study analyses how three art teachers, by using the idea of “space” as organizing theme, implemented a module of instruction that connected concepts and processes from a variety of art forms (including dance, music, drama, and visual arts). We present evidence from curriculum materials, lesson plans, student-teacher classroom interactions, and students’ productions. Students were able to reflect upon the importance of space within the arts, analyse the points of convergence and divergence among several art forms, experiment with space and create their own interdisciplinary performances. Our ultimate aim is to provide insights that might inspire art teachers in designing instructional units focused on “big ideas”. We suggest that allowing more curricular freedom and providing teachers with adequate structures for interdisciplinary collaboration are key to achieving meaningful levels of integration.

KEYWORDS
Curriculum Integration; Integrated Arts; Arts Education; Classroom Practice; Teacher Learning

ACKNOWLEDGMENTS
This study was funded by the Education Research Funding Programme, National Institute of Education (NIE), Nanyang Technological University, Singapore, project no. OER44/12TLS. The views expressed in this paper are the author’s and do not necessarily represent the views of NIE.

CONTACTING AUTHOR
Alfredo Bautista, Research Scientist & Lecturer. Nanyang Technological University - National Institute of Education. Education and Cognitive Development Laboratory. 1 Nanyang Walk, NIE5-B3-16. Singapore [637616]. Phone: (+65) 6790 3208. Fax: (+65) 6896 9845. E-mail: Alfredo.Bautista@nie.edu.sg

CITATION
INTRODUCTION
Beyond Disciplinary Division: Focusing on “Big Ideas”

The question of what and how to teach students in school has been open for discussion since the very invention of schooling itself. The Aristotelian idea of scholastic division has clearly dominated the way in which schools design and implement curriculum (Todd, 2010). Indeed, most schools across the world have traditionally presented knowledge in independent—and frequently isolated—academic subjects (e.g., mathematics, science, literacy). Numerous scholars (e.g., Giroux, 2011) claim that this approach to education and curriculum design, known as the disciplinary approach, has contributed to the promotion of segmented and compartmentalized views of knowledge and learning amongst the students of developed societies. Moreover, scholars claim that subject-matter-driven curricula generally fail to address students’ interests, motivations, and concerns about themselves and the world around them (Appel, 2006; Fogarty & Stoehr, 2008).

The idea of curriculum integration was born in the early 20th century as an alternative to the disciplinary approach, and it has received increasing attention in the educational literature during the past three decades. Following Etim (2005), curriculum integration can be defined as a “pedagogical approach that is student-centred and focuses on a theme organized around real life issues and problems drawn from several subject areas” (p. 3). This definition highlights two key aspects of curriculum integration as a pedagogical approach. First, the centre is the learner and not the discipline. In this regard, scholars have argued that curriculum integration is crucial to achieving the goal of holistic education, where students find their own identity and purpose in life through exploring their interests and passions (Miller, 2007). Second, the focus is on the ideas themselves rather than on the discipline/s to which they supposedly belong. More specifically, integrated curricula deal with “big ideas” (Parsons, 2004), also referred to as organizing themes (Etim, 2005) or organizing centres (Ellis, 2005). Such ideas are selected because of their potential to allow students to connect elements from different fields and to create networks of interdisciplinary relationships. The focus on ideas that are broader than specific concepts and wider than particular disciplines allows for more complex and unified approaches to curriculum design (Kelner & Flynn, 2006).

The theoretical roots of curriculum integration can be found in progressivism and constructivism. Progressivist philosophers (Dewey, 1934; Hopkins, 1932) considered the goal of education to be the holistic development of students. Such goal, in their understanding, was only attainable through the integration of academic disciplines. Indeed, they argued that by applying ideas and procedures from one discipline to others, students would develop multidisciplinary knowledge and skills applicable within real life (or “authentic”) situations, which would allow them to better understand the world around them. As explained by Thomas Hopkins (1932), school curriculum should be “organized around the immediate, abiding interests and assured future needs of the learner, utilizing materials selected from all areas of the social heritage regardless of subject division” (p. viii). Curriculum integration is also theoretically rooted in the principles of constructivism. Constructivist theorists (Steffe & Gale, 1995; von Glasersfeld, 1995) have conceptualized learning as an active construction of meaning. They consider that knowledge is not passively received through the senses but actively built up by the individual, who creates internal mental representations of the external world based on his/her personal experiences. Thus, in order to promote the construction of more nuanced and complete representations of the world, constructivism highlights the importance of providing students with experiences that combine and integrate perspectives from multiple disciplines.

The literature presents a variety of arguments and justifications for curriculum integration (for reviews, see Ellis, 2005; Marshall, 2005). Some studies suggest that
integrated curricula foster learning that is more meaningful and less fragmented, improve students’ higher-level thinking skills and facilitate knowledge transfer (Beane & Brodhagen, 2001; Bransford, Brown, & Cocking, 2000). Second, there is evidence that integrated curricula have positive impact on students’ conceptions of learning and knowing (Ingram, 2003; Kelner & Flynn, 2006), helping students to understand that knowledge and learning constitute an integrated system that cannot be thought of as divided into independent domains (Freedman, 2003; Marshall, 2006). Third, student intrinsic motivation is enhanced by organizing instruction around student-selected themes and providing for choice, which facilitates the development of a heightened sense of initiative and autonomy (Beane & Brodhagen, 2001). Fourth, integration allows for the avoiding of repetitions from subject to subject, which gives students extra time to explore new areas (Fogarty & Stoehr, 2008). Finally, given that collaboration amongst teachers is generally needed to plan, teach and evaluate integrated curricula, scholars have argued that curriculum integration has the potential to enhance teachers’ knowledge, motivation and engagement (Rabkin, 2010).

The literature also presents a variety of definitions of and approaches to curriculum integration. In defining this notion, scholars have used numerous terms such as connected, thematic, fused, nested, sequenced, interdisciplinary, transdisciplinary, or multidisciplinary. Despite conceptual differences, scholars have often used these terms interchangeably (Wong, 2012). This terminological diversity has led to approaches based on significantly different tenets. According to Fogarty (1991), there is a continuum across different degrees of integration. On one end of the continuum, curriculum integration simply involves the teaching of several subject matters at the same time. This approach has been criticized for reinforcing the separate and discrete nature of academic disciplines (Marshall, 2005). On the other end, curriculum integration involves the organization of the curriculum to truly show the connectedness of things, regardless of disciplinary boundaries. Students need to draw on multidisciplinary content and procedures to solve real-life problems, which is the focus of instruction (Etim, 2005; Fogarty, 1991). Our own perspective on curriculum integration is consistent with the latter approach.

Despite the potential of curriculum integration to promote the learning of students, as well as the professional development of teachers, research indicates that this approach is still relatively uncommon in schools (Russell-Bowie, 2006; Wong, 2012). This is due to numerous constraints, including the existence of rigid disciplinary curricula that teachers feel obligated to cover, the pressure of having standardized assessments, and the lack of opportunities for collaboration amongst teachers from different subject domains (Russell-Bowie, 2006; Stokes, 2004; Wong, 2012). Research also indicates that many teachers who do embrace the idea of curriculum integration in the classroom tend to adopt superficial levels of integration, that is, those that merely involve connections amongst specific topics and/or themes from several disciplines. In contrast, due to constraints such as the ones mentioned above, attaining the deepest levels of integration seems to be challenging for teachers (Appel, 2006). For example, teachers rarely help students to establish conceptual connections, which would help students to better integrate the ways they understand and conceive knowledge from various fields. Similarly, teachers rarely engage students in making process connections, which would allow the students to understand how different fields of knowledge oftentimes share common underlying mechanisms and/or procedures. As the conditions under which teachers work do not seem to make it easy for them to attain deep levels of integration (Russell-Bowie, 2006; Stokes, 2004; Wong, 2012), the ultimate aim of this paper is to provide ideas that might inspire and/or guide them in designing instructional units focused on big ideas. More specifically, we will illustrate how deep levels of integration can be attained in arts education at the secondary school level.
Curriculum Integration in the Arts: Beyond Arts Integration

Art plays an integral role in civilizing a society and its members. If introduced early and incorporated regularly into instruction, art teaches us about our capacity to communicate ideas and feelings in a variety of modes and media; to analyse data through analogy and illustration; to accept compromise, ambiguity, and difference as positive human traits; and to construct ethical standards of judgment and action. Works of art tell us where we have been, indicate where we are, and leave evidence for future generations to examine for their own education, enlightenment, and delight. (Godfrey, 1992, p. 596)

Many arguments have been put forth in the educational literature regarding the importance of arts education in students’ cognitive, emotional, and socio-cultural development. The quote by Godfrey (1992) presented above condenses many of these arguments. Arts provide students with a more nuanced understanding of themselves, of the people around them, and of the past and present (and even future) of the world. Moreover, arts allow multiple means to express feelings and ideas. With and through the arts, students are able to perceive and analyse things in more complex, textured, and multi-layered ways. The arts naturally prompt approaches to learning and knowing that are often lost in other academic disciplines, engaging not only students’ minds but also their bodies and hearts (Gadsden, 2008).

In view of the potential benefits of the arts for students’ learning and development, some advocates of curriculum integration have developed curricula that connect the teaching of academic subject matters (e.g., mathematics, science, literature) with the teaching of the arts (Burnaford, Brown, Doherty, & McLaughlin, 2007). The term “Arts Integration” has been used to refer to integrated curricula of this nature. According to Richard and Treichel (2013), “Arts integration is an instructional approach used by teachers to work collaboratively to teach the content and processes of two or more subject areas, including one or more arts areas, and to increase the ability of students to identify, create, and apply authentic learning connections” (p. 224). Many scholars have elaborated on the value of integrating the arts into the curriculum. Aside from the intrinsic value and importance of the arts for students’ development at all levels (Godfrey, 1992), it has been argued that the arts make learning much more stimulating, challenging and complex, as well as less rigid and predictable (Gadsden, 2008). The arts constantly expose students to open-ended, ill-structured situations. Consequently, art-related components have the potential to help students further enhance their abstract and creative thinking skills, which are necessary for complex imaginative problem solving (Elfland, 2004).

The literature has documented teachers adopting different approaches to arts integration. For example, Bresler (1995) identified four contrasting types: (1) the subservient approach, where the main goal is to teach other subjects and the arts are simply used as an aid to that goal; (2) the affective approach, where the arts are used to create a pleasant learning atmosphere in the classroom; (3) the social integration approach, which uses the arts to enhance the quality of social interaction within groups; and finally, (4) the coequal and cognitive approach, in which the teaching of the arts is considered to be equally important as the teaching of the other subject matters at hand. As can be observed, approaches 1-3 relegate the arts to a supportive role in furthering other non-arts learning goals, whereas approach 4 truly integrates the arts with instructional goals of other disciplines. Krug and Cohen-Evron (2000) proposed a relatively similar taxonomy that distinguish between: (1) using the arts as a resource for other disciplines; (2) enlarging organizing centres through the study of the arts; (3) using the arts to interpret ideas or themes in other subjects; and (4) understanding life-centred issues through a combination of the arts and other subjects.

Recent literature favours approaches to arts integration where the importance given to the arts is equal to the importance given to the other disciplines at hand (Appel, 2006;
As explained in the prior section, the highest levels of integration are achieved when curriculum is organized around big ideas or themes that connect all the subject matters in question, and when students are provided with opportunities to establish conceptual and process connections (Wiggins, 2001; Wong, 2012). Ellis (2005) has proposed a four-step procedure for developing integrated instructional units focusing on big ideas:

- **Step 1: Selecting an organizing centre.** Teachers of different subject matters work together until they find a theme that is central to all their corresponding disciplines.
- **Step 2: Brainstorming associations.** The relationships amongst the different disciplines are analysed based on the organizing centre identified in Step 1, which allows the identification of further shared concepts and processes.
- **Step 3: Establishing guiding questions to serve as a scope and sequence.** This step allows teachers to “give shape” to all the pedagogical ideas selected for the integrated curriculum, thereby providing the curriculum with a coherent structure.
- **Step 4: Writing activities for implementation.** Finally, teachers design activities or projects meaningful to students, which will allow them to analyse, explore, and experiment connections among multiple disciplines.

An illustrative example can be found in Tan and Ponnusamy (2013), where a group of secondary school teachers implemented a programme that integrated arts and science through the making of a pinhole camera. The activities posed by the teachers helped the students in establishing conceptual and process connections between photography and the physics principles on light. Additionally, they discussed photography in relation to the chemical reactions involved in developing photos. Another illustrative example can be found in Wallace, Sheffield, Rénnie, and Venville (2007). A teacher designed a curriculum that integrated arts, mathematics, and science through the construction of a dollhouse. The project helped the students to draw links among ideas related to design, their conceptual understanding of circuitry and energy, as well as measurement and calculation of the dimensions of a house.

Arts integration research has focused on documenting how the teaching of specific art forms can be integrated with “core” academic subject matters (e.g., science, mathematics, literacy). However, the question of how the teaching of multiple art forms themselves can be integrated in schools remains to be explored in greater depth by educational researchers. Integration represents a concrete and feasible approach to teaching different forms of art in a postmodern way. In the arts, following Marshall (2005), knowledge is contextualized in particular settings and embodied in specific practices, boundaries between disciplines are blurred, and emphasis is placed on content in relation to form. Indeed, the arts naturally prompt approaches to learning and knowing that are often lost in many current day academic practices, engaging all aspect of students’ embodied minds (Best, 1992). This study is therefore specifically focused on arts education, in particular at the secondary school level. To the best of our knowledge, no research conducted within secondary school settings has documented how students can simultaneously learn about different forms of art through integrated curricular units.

**Objective**

The objective of this article is to illustrate how the idea of curriculum integration can be enacted within the arts education classroom at the secondary school level. We analyse how three art teachers, by using the idea of “space” as organizing theme, implemented a module of instruction that connected concepts and processes from a variety of art forms (including dance, music, drama, and visual arts). Our ultimate aim is to provide insights that might inspire and/or guide art teachers in designing similar instructional modules, focused on “big
ideas” such as the idea of space. This illustrative study is relevant because, as research has shown, attaining the highest levels of curriculum integration is challenging for teachers (Russell-Bowie, 2006; Stokes, 2004; Wong, 2012). However, we do not mean to suggest that the module described here should be literally replicated by other art teachers in their classrooms, or that the choices of artists and art-works made by the teachers featured here were the most appropriate ones.

The notion of space is interdisciplinary in its own nature. Providing a comprehensive definition of this notion is therefore highly complicated. For example, the definition offered in Wikipedia alludes to concepts and processes from multiple knowledge domains such as philosophy, mathematics, physics, geography, or psychology. Beyond being a notion that can be used in various areas, we conceptualize space as a powerful “big idea” (i.e., organizing centre, organizing theme, shared concept) because it allows one to tackle questions, address issues, and/or solve problems that cross disciplinary boundaries, allowing us to reveal the connections that exist between knowledge domains (Marshall, 2005). The potential of notions such as space for cross-curricular work is exemplified in the case study presented below.

METHOD
Research Design

The case study presented in this article was identified at the early stages of a 6-year long longitudinal research project, which was conducted in an independent secondary school in Singapore. The overall purpose of the project was to study the implementation of arts-infused curricula, examine pedagogical practices and evaluate the influences and impact of curricula on student development, motivations and outcomes. The project was based on the ecological approach to design ethnography (Barab & Roth, 2006). The researchers were deeply engaged within the research context during an extended period of time and collected a variety of data sources from students, teachers, and school management. The case study presented here was selected because of its inherent interest, using an information-oriented sampling strategy.

Research Context

The school where the project was conducted offers a six-year art-anchored general education programme for students from 13 to 18 years of age. Students are admitted to the school based on their potential in the arts. Academic achievement is not the main admission criteria. During the programme, aside from the compulsory subject matters of the general curriculum (mathematics, science, literacy, etc.), all students are required to specialise in a particular art form (dance, music, drama or visual arts).

The school’s curriculum framework is consistent with the tenets of curriculum integration described in the Introduction. Drawing on Perkin’s (1992) idea of a “connected curriculum”, the school conceives that building interdisciplinary connections fosters deeper learning in students and contributes to their holistic development, thereby preparing them for the 21st century challenges. Rather than focusing on memorization and rote learning of a pre-established curriculum, the school emphasises on the importance of experimentation, expression, engagement and discovery. This can be observed in the following excerpt from the school’s curriculum framework.

The guiding principle of [School’s Name] curriculum design is in building connections between disciplines for purposeful and meaningful learning, and enduring understandings. Guided by the school values, the curriculum celebrates experimentation, expression, engagement and discovery in its pedagogical approaches and assessment modalities. As an

---

1 See https://en.wikipedia.org/wiki/Space
integrated arts and academic curriculum which has the holistic development of the student in mind, the Connected Curriculum aims to prepare our students for the challenges of the 21st century that is marked by interdependence, diversity, technology and accelerated change.

Curriculum Framework (Page 1 of 3)

The school’s faculty— which consists of both academic teachers and practising artist teachers— is committed to taking an interdisciplinary approach to curriculum design. Teachers with different backgrounds commonly work together in designing curriculum units that highlight the connections between subject matters traditionally taught in isolation, using the arts as transversal axis. This can be observed in the following quote from one of the school’s curriculum leaders.

In the connected curriculum, the connections are not assigned, we look for meaningful connections and the connections are between disciplines and between disciplines with the arts or with the non-arts (...) We are leveraging students’ passion in the art. It is almost second nature for us to look for possible connections all the time, as far as possible. But we also do with the other art forms and they are quite rich too.

(Curriculum leader. Interview conducted in 2011)

Even though this study was conducted in a school specialized in the arts, we claim that traditional schools should also be able to adopt instructional approaches as the one described here. The section “Implications” elaborates on the conditions that schools should adopt to facilitate such approaches to arts education at the secondary school level.

Data sources

The school’s curriculum vision led to the conception of the “Integrated Arts” programme, which is the main source of data for this study. The programme was collaboratively designed by the arts faculty (the researchers were not involved in any aspect of the design of the programme). Its goal was to help secondary students discover intersections between dance, music, drama and visual arts and to engage them in creating and experimenting new forms of artistic expression. The fundamental idea of the programme was to help students develop competencies and skills that would be essential in their (potential) careers as 21st century artists (e.g., creativity, critical thinking, self-expression and reflection in the artistic process. This would be achieved by extending students beyond their specialised art form during their secondary education.

The “Integrated Arts” programme consisted of several modules of instruction for different grade levels. This study focuses on a series of lessons from a module of instruction titled “Space in the Arts” (a detailed description is presented below), which was targeted at Grade 10 students (16-17 year old). Our analysis draws on curriculum materials, lesson plans (including projected learning activities), student-teacher classroom interactions, and descriptions of students’ artistic productions.

Participants

The lessons analysed in the study were taught by three teachers: Ms Paula, Mr Saed and Mr Daniel (all names are pseudonymous). As can be observed in Table 1, the teachers differed in age, educational background and years of teaching experience. Each teacher had a different group of students (approximately 20 per class) with a mix of both genders. The three classes had students specialising in different art forms (dance, music, drama and visual arts).
MODULE OF INSTRUCTION: “SPACE IN THE ARTS”

Overview

The overall goal of the “Integrated Arts” programme was to help students discover intersections among different art forms and to engage them in creating and experimenting with new forms of artistic expression. In the module of instruction designed for Grade 10 students, the teachers chose “space” as the big idea (or organizing centre/theme). The module was titled “Space in the Arts”. As justified in the curriculum materials, more specifically the scheme of work, the teachers chose space because they considered it to be an essential element in all art forms, even the most important feature in some specific artworks.

Space is one of several very important elements or concepts that is continually explored and manipulated in the Arts. In some artworks, the use of space is its most striking and significant feature.

[Curriculum materials: Scheme of Work (2010). Page 1 of 3]

During the lessons corresponding to this module, the students explored the concept of space and its importance within the arts and analysed points of convergence and divergence between different art forms. Classroom discussions focused on how the manipulation of space has the potential to trigger a wide range of psychological responses, to communicate a variety of aesthetic ideas (including emptiness, stillness, restraint, and silence), and to explore sophisticated notions such as chance, change or chaos. In addition, the students were asked to experiment with space and create their own interdisciplinary productions.

We will be exploring the significance of the environment in which Artworks are created and presented and the audience’s interaction with the Artwork and/or the artist/s. We will enjoy freedom and openness in the creation, presentation and interpretation of Artwork and performance; allowing for chance, change and even chaos. We will experiment with the aesthetics of emptiness, stillness, restraint, and silence in art-making and performance.

[Curriculum materials]

To illustrate how space can be utilized and manipulated in a variety of art forms, the teachers introduced the works of a playwright (Samuel Beckett), a music composer (John Cage) and a visual artist (Amanda Heng). The specific artworks discussed with the students are described below.

The work of Samuel Beckett, John Cage and Amanda Heng will be explored.
Silence, emptiness, meaningless and the work of playwright, Samuel Beckett (Absurdism/Surrealism).

- Space, Chance and the music of composer John Cage.
- Space, place and audience relationships in performance art and the work of Amanda Heng.

[Curriculum materials]

**Structure**

The teaching of “Space in the Arts” was divided into three stages. In Stage 1, titled *Exposé*, the students were asked to come up with their own definitions of space, discuss their understandings in groups, and identify their preferences regarding space in their specific art forms. They were also encouraged to analyse how various artworks and performances used space differently. The main goal of Stage 2, named *Experiment*, was to allow the students to gain practical experience with the use and manipulation of space. The activities posed required students to explore and respond to site-specific artistic productions, as well as to generate new and creative spaces based on the ideas previously discussed. Stage 2 helped the students uncover the “bridges” across several art forms and extended them beyond their specialised art forms. Finally, in Stage 3, titled *Express*, the students were asked to create original, innovative artworks to explore and communicate their own ideas on space. Students’ artistic productions had to be interdisciplinary and present certain specific features (e.g., unique spatial relationships with the audience).

**THREE ILLUSTRATIVE EPISODES**

In this section, we present three classroom episodes that illustrate how the idea of curriculum integration can be enacted in the arts education classroom at the secondary level. Each episode was taught by one of the three teachers featured in the Participants section (Ms Paula, Mr Saed and Mr Daniel). The episodes elaborate on concepts and processes related to different pieces of artwork.

**Episode 1. Exploring space across art forms: Introduction to site-specific artworks**

One of the goals of Stage 1: *Exposé* was to help the students appreciate and deconstruct artworks that indulge the use of space. To achieve this goal, Ms Paula focused on the analysis of site-specific artworks in one of her lessons. Such artworks include artistic productions and performances that were created for a specific physical space. When introducing the lesson, Ms Paula elaborated on the significance of the physical setting in which site-specific works are displayed and/or performed.

Ms Paula *One of the most important rules of why people want to stage site-specific work is that it taps on certain ideas from the site. If you just transpose one work to the site, if you don’t find any relations, then your audience will come to you and say, “Why did you do that? Is it because you are seeking a new environment? Because your piece has nothing to do with space…” It has to relate, it has to have a certain degree of idea anchoring it down to the ground… The site that you choose, and the piece of work you are going to do must complement, that means that the art installation that you are going to do at the site have to tap on the sensory things that you gather at that site, physical factors…*

Interestingly, the teacher did not refer to space in relation to a specific art form. Instead, by adopting an interdisciplinary perspective, she referred to general aspects that need
to be considered when conceiving and creating site-specific artworks, regardless of the artist’s specific art form. For example, Ms Paula referred to the importance of showing the audience how the artwork relates to the physical factors of the space where it is displayed and/or performed, and what the relationships between art and space are. She also referred to the importance of considering how these relationships can elicit different psychological states and emotions in the audience.

Ms Paula provided the students with some guidelines to appreciate and deconstruct the features of different types of site-specific artworks. The following excerpt contains the five analytic criteria given to the students during the lesson:

**Hand-out provided to students:**

1) The historical layer.
2) The layer of what the space is used for presently and how visitors to the space interact with it and move inside or around it.
3) What the space contains objectively.
   a. How does the physical organisation of the space impact the potential for dance movement?
   b. What are the natural occurring sounds in this space?
   c. What safety precautions (if any) need to be taken to ensure that the dancers are protected physically (i.e. Are shoes necessary? If the space is exposed to the elements will the dancers be able to cope safely?)
4) What the space contains subjectively (these variables change moment to moment)
   a. Sensorially (how do the textures, smells, temperature, sounds, colours, visual patterns make you want to move or effect your movement)
   b. Emotionally
5) How all the elements discovered within the layers pertaining to the space, sound movement and performer mix together to help communicate the overarching idea for the piece of work.

Similar to the teacher’s verbal explanations, these guidelines were not restricted to a specific art form but included elements pertaining to multiple art forms, including dance (movements), visual arts (texture, sounds, colour, visual patterns), and music (sound). Furthermore, interdisciplinary connections were also established across these art forms. For example, elements such as texture and visual patterns tend to be predominantly associated with visual arts. However, as the guidelines suggest, texture and visual patterns can also potentially influence dancers to change their corporal movements in a physical space. The students were asked to use these guidelines to analyse and deconstruct several site-specific artworks. This allowed them to notice that space is an essential element in many forms of art.

Then, Ms Paula accompanied the students around the school to view potential spaces to stage their own site-specific productions and performances. They discussed how different spaces have potential to elicit different psychological states and emotions. For example, the teacher explained that if a performance were to be staged at a particular space within the school, it could leverage on the juxtaposition of a closed door with an open corridor. Despite being in the same physical space, these two elements (closed door and open corridor) would create different “psychological spaces” in the audience. The following excerpt shows part of the explanation provided by Ms Paula.

Ms Paula  You have a door and a door without a barrier. You all know what a door is traditionally used for right? It is used to create another space... Imagine yourself, when you stand in front of the door and you don’t know the space that
is behind it. That kind of feeling that you get is the same as when you go for an audition or an interview when you stand at the door right? You don’t know what is going to happen after you enter the door, so you can play with that kind of emotions as opposed to … walkway that is open and you can see, can play on that kind of juxtaposition.

**Episode 2. Experimenting with different types of ‘creative spaces’**

Stage 2: *Experiment* had several goals, including that of exploring and responding to different types of ‘creative spaces’. To achieve such goal, Mr Saed engaged his students in the analysis of various art works: a music composition by John Cage, a performance by Zhang Huan, Mark Rothko’s chapel, and the work by composer Morton Feldman.

In one of the lessons, Mr Saed elaborated on the relationships between the concepts of space and time in the arts. This was in fact consistent with the scheme of work, which explicitly stated that “time is an important element in creation of a creative space”. To show how artists have utilized space and time to elicit different psychological states and emotions in the audience, Mr Saed screened a video of John Cage’s composition, 4’33”. This composition consists of three movements during which the performer (a pianist) does not play the instrument at all; hence, the music only consists of sounds from the audience and surrounding environment.

After screening the video, the class reflected on how the structure of the composition and the gestures of the performer on stage complemented each other to create a “dramatic moment”. The following conversation between Mr Saed and the students illustrates the group’s thinking process.

Mr Saed  *Why three movements?*

Student 1  *Create tension and release.*

Mr Saed  *Which of the three movements was longest?*

Several students:  *Second*

Mr Saed  *Why would you want the second one to be longest? To me, I think it’s the game of patience, in a way. It’s a drama about your patience to some extent. I don’t know. Okay, if you totally agree, but the music certainly works like a drama on your patience. At first you, I agree, very confused. Yeah, someone gets up, they sit down on the piano, they got the music and stopwatch, they open the lid and they sit down. Okay? So about the first minute thirty, like the first few minutes. Um, about thirty seconds, sit there and you really, you’ll be quite confused, right? And then he, he does this movement change thing with the lid, with the keyboard lid and everything, gets up, puts his hand and he got this long movement. By then you’re like, oh my gosh, this is really what we’re going to be doing in the next four minutes and thirty three seconds? So it’s quite a lot of movements, and then, at the end, he had a nice short movement cause by then, he kind of said, okay, we’re almost to the end of the last movement, we’re good to go. Right? So, I think there’s a lot about how he uses time. Is this piece dramatic?*

Student 2  *It’s dramatic for us. But I think it’s more dramatic for the audience that it’s*
Mr Saed: Cool. Yeah, it’s quite, in that sense, it’s very much involved in the audience, isn’t it?

One of the points Mr Saed raised during the discussion relates to the form of the piece, structured in three movements, which provided the performance with moments for tension and release, as pointed out by one student. Another point was the importance of the pianist’s body movements and how these movements enhanced the dramatic effects created by the manipulation of time, as pointed out by another student. The analysis of this performance allowed the students understand that the focus on time and movement within a music concert setting (where the audience would expect to listen to music) was a powerful combination to trigger a range of reactions such as confusion, frustration and anger.

The teacher then showed a video featuring the many works of Chinese artist Zhang Huan. After the video screening, the class focused the discussion on a performance titled “To Raise the Water Level in a Fish Pond”. This performance involves 40 naked labourers from the bottom ranks of society standing in a pond in order to raise the water level. Mr Saed and his students analysed how Zhang Huan used space and time to create this particular work.

The teacher explained that performance art is interdisciplinary in nature, as it oftentimes leverages on elements from dance, music, drama and visual arts. His intent was to make explicit the intersection between these four art forms and to show that they are not independent of each other, hence broadening the students’ understanding of artistic expression. This can be observed in the following quote.

Mr Saed: Performance art is really weird places, what it reflects, I don’t mean it’s a weird art form but it’s something that becomes very much about drama, very much about music, very much about visual arts, very much about dance. And I think it’s a great, it’s a great interceptive; a lot with what we do in a very creative, uh, and yet also very vulnerable way.

Interestingly, the analysis of utilisation of space in Zhang Huan’s artwork led one of the students to reflect on how the inclusion of physical self in the performance art space brings about great degree of unpredictability, given the number of factors involved in the performance.

Student: I feel that in a way that when you put your body into the particular performance, you take up that space. And in that way, you, you move, you change to, and react towards things around you. So in a way, there’s a certain, there’s a sort of unpredictability. At the same time, though you have decided on doing a certain thing. You, you still, there are certain factors that may affect [...], so in a way, that’s unpredictability.

Another student considered the practical aspects of manipulation of space via mathematics, hence drawing links between different subject matters. As can be observed in the quotes below, the teacher followed-up by concluding that artists must consider the practical aspects when creating their artwork.

Student: But I think the idea of raising it (the level of the water) is quite like creative in a way because if we think about it last year, right, the lake is really huge and he has to go into the calculations on how to get the water to rise by one centimetre...
and then again how do you calculate that one centimetre so I thought that there was a lot tactical calculations that he needs to do before going into the water.

Mr Saed  
That’s a very practical aspect, right? You can’t just say, ok, go get the water and it just happens, right? I’m more curious, how he dealt with... I mean, he must have done it in a relatively short period of time, also come back in like pull of the earth and tides and stuff. Even I guess a pond doesn’t have tides, but still, but must be strange. Some very practical issues, right?

Mr Saed then introduced the work of visual artist Mark Rothko. Using the example of his chapel, known as Rothko Chapel, the teacher encouraged the students to examine the significance of the environments where artworks are exhibited or performed. He explained that artists oftentimes design physical spaces to host their art pieces and performances, and that these spaces can become an integral part of the artwork itself because they have the potential to change the audience’s perception.

Mr Saed  
Now, imagine that the design of your space can change your whole perception.

Student  
So, if you think about it, you can’t really say it’s a chapel. You have to kind of look at it from the point like it’s an artwork in relation to this work. And when he puts his work in the space right, it’s a whole.

During the discussion, a student mentioned that a space can encompass one’s vision and beliefs about the art piece or performance that is being presented (first quote below). Another student reflected on how a space can help inspire and determine the type of music composition for a particular physical setting (second quote).

Student  
Say if you want to design something for a performance, then you must have an image in your own mind about what the performance, how is the performance going to be played out. Then we can put in whatever the concept in mind into that particular space based on your own style and design is what my beliefs.

Student  
We use parts of the school to make some music that is limited to the space. Like the music is based on what space was like...

Some students made connections between art and religion. They reflected on how religious spaces can affect how the audience perceives and experiences artworks:

Student 1  
A chapel is like a sacred place where there’s some kind of decorum, respectful behaviour. So when it becomes and art gallery, it kind, I don’t know, it kind of shifts the respect from God and the religion I guess to what you’re looking at which is art.

Mr Saed  
Is this chapel meant to be a way of looking at Rothko as God or is it more a respect to his work or is it more his expression inside religion?

Student 2  
It’s not the first time people have involve religion for art. Because like clearly in Notre Dame in Paris...

Student 3  
I think the central focus is more of a spiritual environment. Because normally
when you go into a church, you see like the priest talks about religious stuff like what’s the context of the bible or like what the message is trying to bring across about Jesus and such. ... Even though it goes into the audience head, it’s like the lesson is there and it’s like this spiritual message is heard, is being heard. So like everyone is getting this spiritual feeling.

Finally, Mr Saed introduced the work of Morton Feldman, who composed music pieces inspired by Rothko Chapel, and asked the class to analyse the similarities between Feldman and Rothko’s work. During the discussion, Mr Saed encouraged the students to draw inspiration from artists in other art fields and emphasised the importance of collaboration.

Mr Saed  

Feldman went to Houston and saw this great artist [referring to Rothko] in the art gallery, and he was very inspired by his works. And, I think, one thing that really inspired Feldman is that the paintings, style discipline, have a lot in common with his musical style and found some sort of connection within this to explore... I think it is good to look at this, some of the paintings that inspired a composer to write this piece, and I think what I really like about this is, it’s not collaborative work, right? Rothko painted, Feldman was inspired, went off and wrote a piece of music. Not collaborative, right? But there was this idea that he was inspired by this other artist. I think this is something that is really important. How can we look at other artists? How can they inspire us? How can we be inspired by what people are doing in other art forms?

Episode 3. Expressing with space in interdisciplinary artworks

The goal of Stage 3: Express was to help students explore and communicate their own ideas on space through the creation of an interdisciplinary performance, which was meant to be both original and innovative. To achieve this goal, teacher Mr Daniel split the class into small groups, each consisting of students from two different art forms. He asked the students to incorporate principles from their respective art forms into a performance and explore how those principles converged. The following excerpt shows the directions that Mr Daniel verbally gave to the students.

Mr Daniel  

[...] create some experiences for the audience, experimenting with different version of space in your art form [...] Each group is exploring two different artistic disciplines. What you are going to do is that, you are going to try to combine and merge the principles or ideas or techniques that you explored. For example, last week, we were playing with moving tables in and out, and space, and composing an image. And then, we were playing around with actor-audience relationship. What if those two ideas were brought together into one piece? Not necessarily those two gimmicks as such, but those two ideas, and the job of that group is to play around with those two principles, and see how we can create as a presentation using both ideas.

In response to this prompt, the students created a variety of performances. One of the performances was titled “Canon with variation”. It involved four students sitting around a table. One student would perform an action (including physical movements and/or sounds) and the person next to her/him would repeat the action with slight variation, and so on, thereby creating a mirror effect. This group also used silence at different points of the performance to create moments of tension and release. The teacher made the following comment about this group’s manipulation of physical space and sound.
Mr Daniel  

*It’s very evocative, to be just sitting there, the tension that was created between them, the space between them and the silence...*

Another group of students created a performance whereby the manipulation of space depended on the characteristic of the music being played. The members of the group explained that their aim was to explore the interaction between visual density and musical density.

**Student 1**  
*One of the things we’re trying to explore is the density. Like, the moving in and out also matter a lot (...) because we played with the density of sound as well as the visual density. So if he, if he played a heavier piece, we will all move in. And, as we move in, right, Thaddeus [one of the group’s members] will get this feeling that he wants, uhmmm, the space to be less dense. So, he plays a piece that is less dense that make us, like, move out in a way.*

**Student 2**  
*The starting was a bit slow and very, and very low. But the density is very deep so that the music started to spread out. It’s like, it’s sort of a signal because, because, right? It’s to, it’s to get a good spread out. It’s also a way to get the whole piece started...*

Another group of students experimented with the idea of *chance*. The operation of chance they chose was the tossing of coin. The students formed a circle and one of them tossed a coin. If heads were thrown, they would all move a step in. Their movement was also dependent on the music being performed by one of the group members. Every time the music stopped, the student furthest away from the circle would move around a specific piece of furniture in the room. Moreover, a transition point in the performance was dependent on the mood of the music, which entailed the students moving the pieces of furniture available in the room, hence incorporating the notion of space in their performance.

The opportunity to create interdisciplinary performances allowed the students to collaborate with colleagues from other artistic fields, which challenged their creative thinking and broadened their perspectives on artistic expression. Moreover, this opportunity allowed the students to convey their personal ideas on space through the creation of an artwork, hence encouraging self-expression and collaboration.

**DISCUSSION**

Research has shown that attaining the highest forms of curriculum integration is, for multiple reasons, challenging for teachers (Stokes, 2004; Russell-Bowie, 2006; Wong, 2012). Indeed, teachers who embrace the idea of curriculum integration tend to adopt rather superficial approaches, especially when the areas being integrated involve the “core” academic subjects and the arts. Perhaps because the arts are often regarded as areas for enrichment or even entertainment within schools, their importance within integrated curricula has been predominantly minor. More specifically, many arts integration initiatives have relegated the arts to supportive roles in furthering other non-arts learning goals (Bresler, 1995; Krug & Cohen-Evron, 2000). In response to this problem, the ultimate aim of this study is to provide insights that might inspire teachers in designing instructional units that foster deeper levels of curriculum integration within the arts.

The study was conducted at a secondary specialised arts school in Singapore. We have presented several snippets from the school’s “Integrated Arts” programme, whose goal
was to help students discover intersections between dance, music, drama and visual arts and to engage them in creating and experimenting with new forms of artistic expression. Before discussing the above-presented data, it is important to highlight some of the conditions and leverages that facilitated the design and implementation of the “Integrated Arts” programme, which, in our viewpoint, constitutes a high-quality curriculum integration initiative (Tan & Ponnusamy, 2013, 2014).

Inspired by Perkin’s (1992) work on “connected curriculum”, both the school’s leaders and the faculty were strong advocates for the idea of curriculum integration, as demonstrated in the multiple interviews and informal chats that our research team held with them, within the scope of our research project (Tan & Ponnusamy, 2013, 2014). They conceived that building interdisciplinary connections was essential to foster students’ holistic development and to prepare them to better face the challenges of the 21st century. This shared vision was also evident in the school’s curriculum framework, and ultimately, in the way teachers taught to the students. The school was aware of the importance of providing its teachers with opportunities for collaborative work and collegial sharing. The school was also aware that these opportunities would enable the teachers to design new curriculum integration initiatives, and subsequently try them out in the classroom. The “Integrated Arts” programme, in particular, was collaboratively designed by art teachers and artist educators with different educational backgrounds and types of expertise.

“Space in the Arts” was a module of instruction designed for Grade 10 students (16-17 year old). By using space as the big idea (Parsons, 2004)—or organizing theme (Etim, 2005) or centres (Ellis, 2005)—, the module connected concepts and processes from dance, music, drama, and visual arts, among other areas. We have presented three classroom episodes that illustrate the different stages of the module, namely Expose, Experiment and Express. Each episode was taught by a different teacher and elaborated on concepts and processes related to different pieces of artwork. We have shown how the students were given opportunities to reflect upon the importance of space within the arts. The activities built upon the students’ prior knowledge and helped them to establish meaningful connections with their every-day life experiences. This feature of the programme is consistent with Marshall’s (2002) perspective, according to which “Art lessons are most meaningful when they connect to a student’s world. A meaningful lesson derives from prior experience and evolves from there to the creation of new knowledge, experience, and a deeper understanding of life” (p. 280). Furthermore, the designers of “Space in the Arts” did not have a unique definition of space in mind, and consequently did not aim to impose their own understanding on the students. The definition of space was open-ended. The three teachers fostered the emergence of multiple understandings among students regarding the role of space in the arts, and raised awareness of how space can potentially link different forms of artistic expression. The instructional module also allowed the students to analyse the points of convergence and divergence among several art forms, by appreciating and deconstructing specific artistic productions in dance, music, drama and visual arts. Finally, students were given opportunities to experiment with space and create their own interdisciplinary artistic productions. The teachers emphasised on the importance of collaboration in enhancing artistic expression, which was aligned with the goals of the “Integrated Arts” programme. In a nutshell, the integrated curriculum “Space in the Arts” was designed to help students develop a broader perspective towards the arts, enabling them to acquire more sophisticated levels of appreciation, analysis and expression.

Some readers might argue that the specific choices of artists, art-works, concepts and processes made by Ms Paula, Mr Saed and Mr Daniel were perhaps not the best possible ones. For instance, one might say that the idea of “time” could have been a better organizing theme, or that selecting Beckett and Cage as examples might obfuscate the authors’
conceptions of the notion of “space.” Similarly, some readers may rightly argue that the work that students carried out during the lessons was restricted to and condensed in the form of the performing arts, as the visual component of students’ creations was manifested in performances rather than in artifacts. As stated above, the intent of this paper is not to suggest that “Space in the arts” should be literally replicated by other art teachers, as we are aware that this module of instruction has its limitations and could have been designed using different artistic resources. Rather, our intent has been to exemplify an instructional module with high-quality design features, which might inspire other teachers when planning and implementing similar curriculum integration modules.

**IMPLICATIONS**

Adopting curriculum integration approaches within the arts education classroom in “traditional” schools makes sense for a variety of reasons. First, it is well known that artistic practice in the 21st century has blurred boundaries between art forms. It is increasingly common for contemporary artists to combine materials, tools, working techniques, and ideas from various artistic forms (Marshall, 2005). Thus, curriculum integration in arts education has the potential to provide students with more authentic learning experiences, similar to the ways in which contemporary artists actually work. Second, this approach is powerful because it allows students to “de-compartmentalize” the arts and it develops the students’ ability to look at the arts more comprehensively. Finally, curriculum integration provides art teachers with opportunities to interact with and learn from other fellow teachers with different specializations. This has the potential to foster postmodern approaches to art education, shifting the focus of art education away from formal concerns to meaning-making (Marshall, 2005).

With Barrett (2001), we concur that deep artistic understanding depends on the interdisciplinary connections established among different art forms. We therefore claim that mainstream schools would benefit from adopting the framework of curriculum integration in the arts education classroom. Adopting this approach, however, does not require the complete abandonment of the traditional disciplinary approach, which has the advantage of unpacking the internal logic of a subject for students (Miller, 2007). Certainly, both approaches can co-exist in practice. Regarding educational institutions specialized in the arts, we think that both approaches (single-disciplinary specialization and curriculum integration) should also co-exist, similar to the school where this research was carried out and similar to other specialized institutions such as conservatories or art institutes (Bautista, Pérez Echeverría, & Pozo, 2010). While single-disciplinary specialization in specific art forms can potentially lead to extraordinary levels of mastery and/or virtuosity, it has commonly isolated the specialists who practice and/or teach about the arts from each other and from contacts and influences of other art forms (Detels, 1999).

We are aware that mainstream schools in many countries do not have a faculty that specializes in several art disciplines, and that immense preparation is needed for teachers to teach the arts in an integrated fashion. As Ellis (2005) argued, the teachers’ ability to integrate multiple disciplines is highly problematic when they themselves lack sufficient content knowledge and skills in the disciplines to be integrated. Here is where the role of the school in fostering teacher learning and professional development becomes key. It is essential that schools provide teachers with opportunities to interact with and learn not only from other teachers within their own school (Richard & Treichel, 2013), but also with art teachers from other schools as well as with practicing artists (Rabkin, 2010). Many schools have demonstrated that collaboration amongst artists and art educators is possible and fruitful, working to the advantage of the status of the arts within both schools and communities. Thus,
by providing adequate structures for teacher interdisciplinary collaboration, we claim that mainstream schools would benefit from adopting the framework of curriculum integration in the arts education classroom.

REFERENCES


