

## Bringing 21<sup>st</sup> century music skills to the curriculum through interdisciplinary study

A. Mustikawati & K.S. Astuti

*Universitas Negeri Yogyakarta, Yogyakarta, Indonesia*

**ABSTRACT:** The demand to master 21<sup>st</sup> century skills prompts schools to develop students' skills and competence. The curriculum should be adjusted to accommodate and accomplish this goal. As part of the school curriculum, art is the one of the potential subjects to develop 21<sup>st</sup> century skills. This paper aims to explain how and why interdisciplinary studies in arts can promote 21<sup>st</sup> century skills. Several skills that students can develop include critical thinking, technology and information management, collaboration, cultural awareness and broader artistic communication. To accomplish effective interdisciplinary study-based learning, planning is the crucial step. Several aspects to be considered in the planning stage are selecting the appropriate materials, theme, subjects, and activities that accommodate and promote 21<sup>st</sup> century skills.

### 1 INTRODUCTION

The rapid development of Technology and Information requires people to employ a strategy in order to survive and compete globally. To fulfill these 'basic' life-skill requirements, the role of school is important to help students acquire the skills needed in the 21<sup>st</sup> century such as (1) critical thinking and problem solving, (2) technology acquisition, information management and communication skills, (3) collaboration skills and (4) cultural awareness (Saaverda & Opver, 2012; Beers, 2018). Music as part of art education in the school curriculum is not merely about how to sing, how to play an instrument, and other technical matters.

There are many ways to develop music lessons to encourage skill development. However, in this paper, we will focus on interdisciplinary study as an approach that could help high school students develop and improve their skills in relation to an Indonesian art curriculum context. This paper contains three main issues. The first part of the paper includes the concept of art education and interdisciplinary study. The next part deals with how to incorporate interdisciplinary study into the Indonesian arts curriculum which will be preceded by a discussion of the curriculum and music education in detail. Then, the third part comprises the positive impact of interdisciplinary study in developing 21<sup>st</sup> century skills. This paper is based on different resources such as government policy document, student textbooks, and other relevant literature.

### 2 ART EDUCATION AND INTERDISCIPLINARY STUDY

There are various definitions of music education and arts education in general. Many objectives and studies conducted by experts and scholars have proved the benefit of art education. From various definitions, objectives, and studies, there is an interesting theory proposed by Swanwick in her work "A Basis for Music Education". He proposed the idea of a comprehensive art experience that consists of *composition, audition, literature, skill, and performance* or *CALSP* (Swanwick, 2002). *Audition* concerns about direct interaction with art works in a broader way. *Composing* encourages students to expand their creativity. *Literature study* reinforces students' knowledge about art. *Skill acquisition* is related to the technical aspect of art and *performance* provides a space for students to critically appreciate works of art.

This concept is relevant to UNESCO which proposes three dimensions of art education, namely interaction and knowledge of art and artists, art practice, and art study (UNESCO, 2006). All of these concepts illustrate that the ideal art education should be comprehensive. It spans exploring studying art and appreciation to skill acquisition and composition. In fact, every aspect is actually connected and supports one another. The aspects of audition and appreciation support art study, while composition requires sufficient knowledge of music and vocabulary. Therefore, all the aspects mentioned needed to be developed in order to maximize learning achievement. Furthermore, this concept has great potential in developing 21<sup>st</sup> century skills through art education.

Using appropriate methods, the concept can be developed as a comprehensive way to learn by improving cognitive, social, and psychomotor faculties. This can be achieved through interdisciplinary study. The term *interdisciplinary study* might sound too theoretic, yet it is a comprehensive study that can be used as the basis of art practice in art education. In addition, interdisciplinary study also benefits other subjects that are involved especially in an academic setting such as a school.

Theoretically, interdisciplinary study can be defined as a way to look at a problem from many points of view and from different subjects (Lattuca, 2001). Integration between subjects is an essential point that differentiates it from similar methods such as multidiscipline (Spelt, Luning, Boekel, & Mulder, 2017). Integration is an ability to connect the knowledge from each subject involved into a whole corpus of meaningful knowledge (Mansilla, 2016). This process involves many skills such as critical thinking, collaboration, and communication (Spelt, et. al, 2017; Styron, 2013).

Based on the *CALSP* concept, interdisciplinary study can start from audition or interaction with a work of art. Audition becomes a fertile ground for students to observe a work of art using sensory perception. This process becomes the basis and source of data for interdisciplinary analysis. Next, the observed work of art is studied using interdisciplinary study by involving other relevant subjects and data. After that, the result of the study is employed in practice by using it as a basis for art making. Using these steps, art learning becomes a comprehensive learning technique that accommodates other aspects of art.

### 3 INTERDISCIPLINARY STUDY TOWARD INDONESIAN ARTS CURRICULUM

According to the Indonesian Senior High School curriculum, art education consists of four branches of art: music, fine art, dance, and theatre. Based on *peraturan menteri pendidikan dan kebudayaan* no.21 tahun 2016 (regulation by ministry of education), there are several competencies that have to be achieved in art education (*Seni dan Budaya* subject) as summarized in

Table 1. Art & culture competence for Senior High School according to regulation (Kemendikbud, 2016).

No	Competency
1	Show curiosity, care for the environment, cooperation, honesty, confidence, and autonomy in relation to art creation
2	Appreciate diversity and the artistic value of arts and cultures
3	Ability to investigate each artistic works and cultural values to identify Their uniqueness, beauty, and aesthetic value
4	Ability to adopt and develop concept, technique, procedure, and media in the process of creating art works
5	Ability to explore concept, technique, procedure, and media in the process of creating art works
6	Examine the diversity and uniqueness of artworks
7	Present the result of the analysis in the form of artworks and cultural studies
8	Create original art works
9	Appraise the diversity and uniqueness of art works
10	Present the result of evaluation in the form of artworks and cultural studies

Table 2. Music Lesson Material based on textbook for X grade students (Kemendikbud, 2017).

Semester	Material	Sub-material
I	Traditional Music	Definition of music Musical symbol and symbolism of music Investigate aesthetic value of music based on its social context Traditional music genre Function of music Music practice
	Music Performance	Introduction & basic concept Music exploration Body movement collaboration (dance in music performance) Compare music
II	Music Performance	Concept of music performance Technical aspect of music performance Performance management Stage performance
	Music Performance	Introduction to music critique criticism Composing music performance critique Present the result

Table 1. These competencies are then elaborated into learning materials such as textbooks listed in Table 2. Table 2 contains music materials for grade X students taken from the 2017 edition of *Seni Budaya* textbook published by the Indonesian government (Kemendikbud - Ministry of Education).

From both tables, it can be seen that the curriculum for music and art in general does not only focus on art practice but also includes cognitive and social process. Connected to the previous *CALSP* concept, this curriculum implements that concept. The interaction with work of art (audition), appreciation, study, and practice are already written in both competencies and textbook. For example, in the chapter of Traditional Music, which consists of several sub-topics such as the definition of music, symbol, and aesthetic value of music that relates to social context, type of traditional music, function of music, and practice of music. From these sub-topics, there is audition or direct interaction with art work, art study, and art practice, which will be continued by *performance* in the next semester. It is interesting to note that theoretic art study does not only discuss the theory of music but also critical discussion regarding art and its social environment. This concept becomes a prototype of comprehensive art learning if conducted appropriately.

Regarding interdisciplinary study, choosing material is essential. The multi-perspective nature of interdisciplinary study requires a special strategy in its realization especially in a school context. Mansilla proposed four epistemological principles in interdisciplinary study that can be used as a basis in creating interdisciplinary learning (Mansilla, 2016). Firstly, the study's framework must be plural in terms of how it can accommodate the different form and nature of the subjects involved. Secondly, the framework of the study must be relevant to the interdisciplinary phenomenon that includes integration. Thirdly, the framework must provide a clear description related to the progress of knowledge in the learning process. Finally, the framework must guarantee quality learning by enclosing a solid basis and relevant standard for each subject involved (Mansilla, 2016).

There are many models that could be used as a tool to develop interdisciplinary learning such as ADDIE, ASSURE and many more. However, based on the principle proposed by Mansilla, we must pay attention to the planning phase because is an important step in interdisciplinary-based learning in school. The topic or materials selected must be relevant to the subjects involved. This point is also related to students' background knowledge in which they need to have sufficient knowledge for the learning to take place. Additionally, the choice of

learning activities must enhance the development of 21<sup>st</sup> century skills such as group activities and discussion. Through group activities, students are expected to be cooperative in collective work becomes a comprehensive learning that accommodate other aspects of art.

#### 4 WHY WE HAVE TO INCORPORATE INTERDISCIPLINARY STUDY IN MUSIC CURRICULUM

In this section, the benefit of including interdisciplinary study in the Indonesian arts curriculum is discussed. The previous chapter demonstrated this kind of study has several benefits related to 21<sup>st</sup> century skills. Firstly, an interdisciplinary approach in the classroom supports the development of critical thinking, technology and information management, collaboration, cultural awareness and broader artistic communication.

##### 4.1 *Developing critical thinking*

Critical thinking is an ability that is beyond objective thinking. It is the ability to think wisely to view a problem and used higher order thinking skills (HOTS) to study and solve problem (Beers, 2018; Collins, 2014). HOTS is a complex thinking process that needs several skills such as analysis, synthesis, comparison, inference, interpretation, assessment, and reasoning to solve problems (Budsankom, Sawangboon, Damrongpanit & Chuensirimongkol, 2015). Ivie (1998) states that HOTS is a thinking ability that includes three criteria: (a) abstract thinking skills, (b) integrating information, (c) the ability to judge and think logically (Ivie, 1998). Critical thinking could be considered as the foundation for other skills.

Interdisciplinary study can be employed to develop higher order thinking skills. In this method, students are required to relate the knowledge between subjects that have been learned based on the collected data. To do this, students process and analyze data, interpret the data, and integrate the result into the whole. This process is complex and involves analytical skills, assessment, and interpretation towards information and skills to make logical inferences that help students develop their critical thinking skills.

##### 4.2 *Technology and information management*

To perform interdisciplinary study, we need adequate data support since this study involves several disciplines (subject). Therefore, students must deal with relatively large amount of data that should be processed. The advancement of technology enables people to access information easier.

Based on this situation, we assume that this could help students to improve their ability to manage information. This ability includes accessing/gathering information, analyzing information including data/information validity, synthesizing, and data processing (Beers, 2018). In this era, when information are dispersed rapidly, this skill could be considered as basic life skill that everyone should have since not all information are accurate and some even cause dire consequences to society.

##### 4.3 *Collaborative skill*

According to Beers, collaboration is the ability to share and work together effectively to solve problem (Beers, 2018). It can develop learning mechanism in an active way. As mentioned by Child & Saw, collaboration has many advantages for students such as: increasing learning ability, processing information from various sources (expanding perspective) as well as social skill (Child & Shaw, 2015).

Child & Shaw argue that in collaboration, relation between roles and responsibility toward subtask is flexible. This distinguishes collaboration and other teamwork method such as cooperation. It possess six important point: social interdependence, introducing of new idea, cooperation/task division, conflict resolution, sharing of resource, and communicating (Child & Shaw, 2015).

From the given explanation, we can conclude that collaboration skill is more than just working together in a team. There are sharing responsibility, thinking collaboration (integrated thinking between team member), and social development. In socio-historical study, this skill is needed. Wide range of perspective that should be explored is more effective if discussed in a group especially with artful thinking method that will be discussed in the next chapter.

#### 4.4 Cultural awareness and broader artistic communication

Cultural Awareness is a state where people are able to understand and respect different culture and also cooperate with people from different cultural background (Beers, 2018). Through interdisciplinary study, students are encouraged to see a problem from various perspectives. This enables students to accept new perspectives particularly through group activities. Avid discussion and cooperation in group helps students to accept and respect the difference between individual members.

How interdisciplinary study can broaden one's artistic ability? As stated by Hauser (2011), work of art is influenced by environment, experience, and knowledge of the artist itself. Interdisciplinary study is one of the approaches that can broaden students' knowledge of art works or cultural phenomenon. Students' increasing knowledge can be a source of inspiration in creating art work not only from the art work itself but also outside it such as the social environment. The knowledge regarding a particular environment is a good new inspiration for students.

## 5 CONCLUSION

This paper illustrates how interdisciplinary study could help art education as potential subject to promote 21<sup>st</sup> century skill. It also discusses interdisciplinary study toward Indonesian art curriculum that show that Indonesia curriculum nowadays has promote 21<sup>st</sup> century skill as well as having potential interdisciplinary study. Establishing interdisciplinary study-based learning requires careful and rigorous planning by considering certain elements such as relevant topic, student's background knowledge or minimum ability, and appropriate activity that enhance 21<sup>st</sup> century skill as well as interdisciplinary study itself. The analysis and discussion in this paper are based on a literature study. Therefore, future study needs to conduct field study so that more issues can be covered.

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kun\_setyaningastuti@uny.ac.id