

# Integrating the Framework of 21<sup>st</sup> Century Learning (4C) into Creative Music Learning

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**Abstract:** Creative music learning is one of the challenging subject in learning music for elementary school students. The main topic of creative music is sound. It is the most important element in learning music. Sound must recognize and heard at the beginning of music lesson. Creative music aims not only to develop students' listening skills, but also to develop the ability in making innovation in music either creating creative musical composition or musical instrument. The students also will get the advantages from creative music learning process such as critical thinking, communication, collaboration, and creativity and innovation (4C). In the framework 21<sup>st</sup> century learning, the 4C are the ability that must achieved by the students. Although creative music subject is important in learning music, but it has not been widely taught in public schools. This paper will examine how 4C integrated in creative music learning. The data obtained from observations and interviews during the music creative learning process. The results shown that students integrate 4C in the learning process. Making creative music requires critical thinking finding various possibilities in order making innovations in music. Communication skill is also needed to express the ideas from critical thoughts. The Collaborative ability also used when playing creative music. Critical thinking skills, communication, and collaboration will ultimately result in creativity and innovation in making creative music.

## 1 INTRODUCTION

Human life in the 21<sup>st</sup> century underwent a massive change. In the 21<sup>st</sup> Century, the entire fulfilment of life needs is based on knowledge, it makes the 21<sup>st</sup> century is also known as knowledge age. The changes in life in the 21<sup>st</sup> century affect various aspects of human life, including education. Education in the 21<sup>st</sup> century is knowledge-based education.

Education in the 21<sup>st</sup> century prepares students to survive various kinds of life changes. The 21<sup>st</sup> century education is also designed students get ready to face the changing trends in employment in the 21<sup>st</sup> century, knowledge age work. The work trend in the 21<sup>st</sup> century is very different from the trend of work in the past century which is based on industry (Trilling and Fadel, 2009: 4).



Figure 1. Work Trend at Industrial Age



Figure 2. Work Trend at Knowledge Age

The education curriculum in the 21<sup>st</sup> century is designed to prepare students to deal with various changes that occur in the 21<sup>st</sup> century. Educational researchers agree that if we want to prepare students to compete in the 21<sup>st</sup> century, education must help students to learn and develop four basic abilities: critical thinking, creative thinking, collaboration, and communication, which is called 4 C (Kokkidou, 2013). The 21<sup>st</sup> century curriculum must be redesigned and reflect the importance of 4c in learning (Rotherham & Willingham, 2010; Pitchers & Soden, 2000: Trilling, 2008). Every learning in the 21<sup>st</sup> century must reflect 4c in all its learning activities.

In 21<sup>st</sup> century learning, music plays an important role in preparing students to improve their 4c abilities (Riconalla & Silor: 2017). To be able to prepare students to fulfil 4c abilities, music lessons in

the 21<sup>st</sup> century were also redesigned. The music material used to develop 4c's abilities is creative music. In creative music learning, students are given the opportunity to be able to improve their abilities 4c.

Creative music is a musical ability with active learning. The focus of this subject is the basic sound foundation in all music learning. In creative music subject, the student not only learning music, but they also learn about critical thinking, creative thinking, collaboration, and communication. This paper is aimed to analysed how the 4's integrated into music creative.

## 2 THE FRAMEWORK OF 21<sup>ST</sup> CENTURY LEARNING

The goal of 21<sup>st</sup> century schools preparing students to face the challenges of life in the 21<sup>st</sup> century. To be able facing the challenges of life in the 21<sup>st</sup> century, students must have important competencies to fulfil cognitive and social abilities (P21, 2006; Taylor, 2011). The partnership for 21<sup>st</sup> Century Learning, known as P21 develops a 21<sup>st</sup> century learning curriculum that has an interest in academic knowledge that focuses on the life and career skills (P21, 2006). According to P21's students must learn important abilities such as critical thinking, creative thinking, communication and collaboration to be able to live successfully in the 21<sup>st</sup> century (P21, 2015).

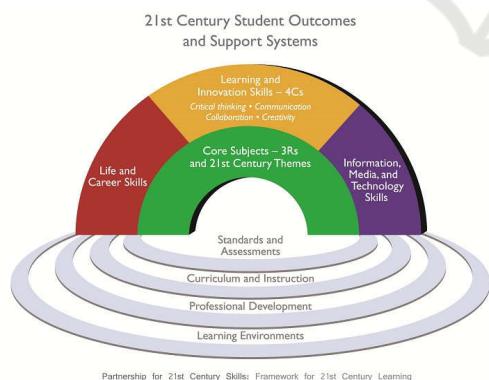


Figure 3. The Framework of 21<sup>st</sup> Century Learning (P21, 2015)

The 21<sup>st</sup> century learning framework is a development of the previous framework of learning. In the previous century, there were three important basic abilities that students must acquire: reading, writing, and arithmetic or what is called 3R. These three basic abilities in the 21<sup>st</sup> century not enough to prepare students to survive and succeed. Therefore,

P21 develops a curriculum that combines 3R's abilities with 4C's. In the 21<sup>st</sup> century learning 3Rs is translated into life and career skills, learning, and innovation skills and information media and technology skills (P21, 2015).

The following are the abilities students must possess in the 21<sup>st</sup> century learning framework (Trilling and Fadel, 2009: 47):

a. Life and Career skills consists of flexibility and adaptability, initiative and self-direction, social and cross-cultural interaction, productivity and accountability, leadership and responsibility.

b. Learning and innovation skills consist of critical thinking and problem solving, creative thinking and innovation, communication, and collaboration.

c. Information Media and Technology skills consist of information literacy, media literacy, and information and communication technology literacy.

From all the abilities that students must acquire in 21<sup>st</sup> century learning, the ability of critical thinking, creative thinking, communication, and collaboration is a very important ability that must be possessed by students (Maneen, 2016: 35). According to P21, 4C's is an ability that can prepare students facing complex life and work environments in the 21<sup>st</sup> century (P21, 2015).

### 2.1 The 4c's: Critical Thinking, Creative Thinking, Communication, and Collaboration

#### 2.1.1 Critical Thinking

Critical thinking. According to P21 the emphasis on critical thinking are using various types of reasoning, such as inductive or deductive as well as effective analysis and evaluating evidence, arguments, claims, and beliefs, analyse and evaluate major alternative points of view, synthesize and make connection between information and arguments, interpret information and draw conclusions based on the best analysis, reflective critically on learning experiences and processes, solutions for different problems in conventional and innovative ways, identify and ask significant questions that clarify various points of view and lead to better solutions.

#### 2.1.2 Creative Thinking

P21 emphasizes creative thinking skills in using wide range of idea creation techniques, such as brainstorming, ideas, elaborate, refine, analyze and evaluate original ideas to improve creative efforts,

develop, implement, and communicate new ideas to others effectively, be open and responsive to new and diverse perspectives, demonstrate originality and inventiveness in work and see failure as an opportunity to learn, act and contribute to the fields which are innovation will occur.

### 2.1.3 Communication

P21 emphasizes communication skills on ability to articulate thoughts and ideas effectively using oral, written, and nonverbal communication skills in various forms and contexts, listen to meaning, including knowledge, values, attitudes, and intentions, use communication for a range purposes, use multiple media and technologies, and know how to assess the impact and effectiveness of a priori, communicate effectively in diverse environments.

### 2.1.4 Collaborations

According to P21, collaboration skills including demonstrating the ability to work effectively and respectfully with diverse team exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal, assume shared responsibility for collaborative work, and value the individual contributions made by each team member.

## 2.2 Creative Music

Creative music is a music learning material with the aim to learn about sound. Sound is the most important element in music. So that at the beginning of music learning, the teacher should help students able to learn listening sounds. Listening sound is essential in music education (Schafer, 1992). Listening is the first musical activity to humans since humans were still in the womb (Graven & Browne, 2008: 187-93).

In creative music learning the material taught is how to listen to various kinds of sounds around us. The sound that was heard then organized and created a new musical composition. In addition to creating new musical compositions, in the process, it is possible to create or find new musical instruments. The composition of music and musical instruments made in creative music learning emphasizes something new, it means students are encouraged to be able to think creatively to produce new musical compositions and musical instruments.

In learning creative music, students learn in a group which is consists of 10-15 students. Each group will be accompanied by students of Music Education Study Program of Faculty of Performing Arts, Institut

Seni Indonesia (ISI) Yogyakarta, as a mentors or facilitators. Each group will be given the task to compose creative music about 3-5 minutes. The indicator of the success of creative music composition is creativity in composing music and producing newness in making new musical instruments so that they can create new sounds.

## 3 METHODS

This study is qualitative research in regard to the consideration that the researcher focused on observing, understanding, and analysing how 4c's integrated into creative music learning. The participants of this study were students of Music Education Study Program, Faculty of Performing Arts, ISI Yogyakarta who were mentors for creative music learning. The data was derived from observations and in-depth interviews. The observations were conducted to observe how 4c's in the framework of 21<sup>st</sup> century learning integrated into creative music learning. In-depth interviews were employed to explore how students use their 4c's skill in the process of creative music learning. The data from observations and interviews were analysed qualitatively to answer the research question addressed in this study. The analysis triangulated all data were needed.

## 4 RESULTS AND DISCUSSIONS

### 4.1 Creative Music in the Framework of 21<sup>st</sup> Century Learning

In the 21<sup>st</sup> century learning framework, it is stated that students must have the ability to be able to improve their competence. The 4c's abilities in the 21<sup>st</sup> century learning framework must be obtained by students in every learning they do. In creative music learning, the 4's C abilities are very necessary. Composing music and musical instruments in creative music learning requires the ability of 4's.

Creative music is a music lesson whose material focuses on students' sensitivity to various sounds. Listening activity is an activity that is subjective and covert (Kratus, 2017), so for some teachers, creative music material looks rather difficult to teach. However, sound listening material is a basic element that is very important to shape students' musical abilities and experiences.

Creative music learning focused on listening activities is learning about concepts that help students

to understand sound in music. According to Dunn (1997), listening activities are natural active processes and involve individual cognitive abilities. Peterson (2006) further explained that active music listeners are creative music makers, who construct music using unique musical perceptions.

From the explanation above, it is known that the activity of listening to music creates an individual musical experience. Musical experience is an individual subjective experience. Individual listeners' musical representations are essential for listeners of music themselves, that is music for these individuals.

Listening music requires high thinking skills because all musical concepts learned are abstract constructs. To be successful in creative music learning, critical thinking skills are needed in order to understand abstract music constructs. In addition to critical thinking, because music activity is a very subjective activity, this activity requires creative thinking, because each individual will creatively use their own ways to understand music. In an effort to understand creative music learning, communication skills are needed. Communication is needed to convey ideas, concepts, or questions to understand the sounds that they listen to. Collaborative ability is also needed to be able to convey ideas and concepts about sound in the form of musical performances.

From this explanation, it can be concluded that creative music learning is learning about how a person can think critically, think creatively, communicate, and collaborate (4c's) to be able to understand the sound that later constructed into music. The 4c's abilities are directly integrated into creative music learning, so making creative music learning becomes an important material to be taught to students.

## 4.2 Critical Thinking and Creative Music Learning

Critical thinking in learning creative music is also needed. In terms to understand sound, the ability to think convergent and divergent is needed. Convergent thinking is a form of problem-solving that produces a definite answer, while divergent thinking is a form of problem-solving that produces a variety of answers.

Learning creative music requires students to be able to make a composition of music and also a new musical instrument from a variety of sounds that are explored. In terms of making a creative music product, students must use critical thinking. The goal of critical thinking is problem-solving. In creative music learning making or producing creative music is a 'problem' that must be solved by students. To solve

the 'problem', students can use convergent and divergent thinking.

Students use critical thinking in exploring sounds. From the results of sound exploration, students will analyse the possibilities of sound that can be used in making creative musical compositions. Sound exploration also allows students to create creative musical instruments. Creative musical instruments referred to here are musical instruments that are made by students based on the results of sound exploration using the ability of critical thinking students. This instrument is also made from items that are easily found by students.

In the process of creative music learning, critical thinking is needed by students to analyse sound, analysing how the sound is arranged to put in creative musical compositions, analysing and evaluating various kinds of ideas from group mates, and make decisions based on various kinds of information, ideas, views, and experience gained. So that in the end students can produce creative music products.

## 4.3 Creative Thinking and Creative Music Learning

In creative music learning, critical thinking skills are related to creative thinking skills (Small, 1987; Pogonowski, 1987). Producing products in creative music, students must also use their creative thinking. Students' creative thinking produces innovation. Innovation in creative music learning is creative musical compositions or creative musical instruments.

Creative thinking is related to divergent thinking. The concept of divergent thinking in listening to music is applied from concepts in psychology about creativity: fluency, flexibility, elaboration, and originality (Kratz, 2017). Fluency is related to how individuals find various possible answers to a question, problem or situation. Flexibility is the ability to think of different types of responses to questions, problems, or situations. Elaboration is the ability to embellish, expand, or notice combinations of ideas. Originality is the ability to think uniquely.

Fluency, flexibility, elaboration, and originality are the results of creative thinking. In creative music learning, these four things are needed to make creative musical compositions and or creative musical instruments. Fluency in creative music learning is used to listen to various kinds of sounds, so the sound can be identified. Flexibility in creative music learning is used not only to list various kinds of sounds that are heard but also to list more details about what sounds are heard and what they feel when

they hear the sound. Elaboration on creative music learning is used when listening to various kinds of sounds, then students listen various kinds of sounds simultaneously. Originality in creative music learning is used when students hear sounds, students can explain the sounds they hear according to what they imagine. This image will be different from one to the other. This is the originality of students.

In producing innovations in creative music learning, fluency and flexibility allow students to be able to identify various types of sounds and use them in their creative musical compositions or from a variety of sounds that are heard, students can make creative musical instruments. From each student's exploration of the sound they listen to, the sound is elaborated on the creative musical composition they are working on. After the sounds are elaborated in creative musical compositions, in the end, students produce a creative music product that is the composition of creative music and original musical instruments.

#### **4.4 Collaboration and Creative Music Learning**

Collaboration in 21<sup>st</sup> century learning is an important ability that students must have to achieve meaningful and effective results. The ability to collaborate also prepares students to work in teams. According to Surowiecki (2005), collaboration in a group with various kinds of individual backgrounds will give better results and produce intellectual decisions than someone who is an expert in making decisions.

In creative music learning, collaboration skills are needed not only in making creative musical compositions but also in playing these compositions in groups. Making creative musical compositions in creative music learning requires many ideas, so it requires the collaboration of ideas from each group member so that the composition of the music can reflect original ideas.

After a creative musical composition is made, the ability to cooperate and collaborate is also needed when perform their creative music compositions that have been made. At the end of creative music learning, a creative music festival was held. This festival displays creative musical works that have been made by students.

#### **4.5 Communication and Creative Music Learning**

Communication skills are also needed in creative music learning. In the 21<sup>st</sup> century learning

framework, communication skills are needed by students to be able to convey ideas through speaking and writing. Communication skills are very closely related to the ability to collaborate. Because communication can work effectively if the individual invited to communicate can understand what is being communicated. As stated by Seefeldt (2004) that social skills (collaboration) and communication skills go together.

In learning creative music, students are required to have good communication skills so that every idea they have can be communicated well in groups. Communication is also needed to analyse and evaluate creative musical compositions and the creation of creative musical instruments with tutors who guide students in groups.

### **5 CONCLUSIONS**

The 4c's ability in the 21<sup>st</sup> century learning framework is an ability that must be achieved by all students. The ability 4c's not only increases students' cognitive abilities at school but also provides opportunities for students to prepare themselves to improve their competence in facing increasingly complex global and workplace challenges in the 21<sup>st</sup> century.

In creative music learning, the main material of learning focused on listening. The 4c's ability is needed so that it can produce creative music products: the composition of creative music and creative musical instruments. Although the 4c's abilities are four different abilities, these four abilities are holistically integrated into creative music learning.

Critical thinking ability is the main ability in creative music learning, but relationships with creative abilities thinking, collaboration, and communication are equally important. This is explained by Richard and Elder (2006) who emphasize that critical thinking has a very close relationship with creative thinking. Critical thinking also requires communication skills to analyse and evaluate critical thinking, while collaboration capabilities are needed to realize ideas that arise from critical thinking.

Making creative music compositions and creative musical instruments begins by using critical thinking and creative thinking on listening activities. The ideas that emerge when listening sounds then communicate and be analysed. These emerging ideas are compiled and organized in creative musical compositions using creative musical instruments. In the end, to produce products from creative music, it takes the ability to

collaborate in groups to be able to play the creative musical compositions that have been made.

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