

Meanings and Method of Creativity and Convergence in Music Education

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Abstract

Objectives: The purpose of this study is to discuss what creativity and convergence are in music education and to suggest teaching-learning methods for music prioritizing creativity and convergence. **Methods/Statistical Analysis:** This study performed contents analysis based on the data related to creativity and convergence education resulting from literature methodology and music textbooks. Literature study was performed to find the connection between creativity and convergence education and we performed an analysis divided into three categories consisting of 'contents', 'method', and 'composition and environment' based on instances where such connection were found in music textbooks. **Findings:** First, a connection between the musical concepts and activity must be provided in terms of contents. Second, there must be a learning method to converge the music and other various fields and a problem solving method learning as well. Third, appropriate questions and guidance for learning must be provided by teachers. **Improvements/Applications:** Emphasizing creativity and convergence in music education will cultivate necessary learning competence for the future and the importance of music education will be further recognized in the field of education.

Keywords: Creativity, Convergence, Method, Meaning, Music Education, Teaching-Learning

1. Introduction

In a knowledge-based society, creative thinking is very important and therefore, learning that cultivates creativity was emphasized in education. Recently, problem solving in real life have come to require converging various areas of study and therefore, learning that emphasizes convergence and connecting between various fields and areas have become the main topic in the field of education. Such creativity and convergence education have been discussed frequently in various fields of study especially in the field of science.

However, 'music' activity requires a person to utilize sound to create original and new materials and this makes music a product of creativity. Therefore, creativity should be an important topic within music education. Also, expressing one's thoughts and feelings in a creative way makes one utilize various factors other than music and this makes convergence an important topic as well

in music education. This prompted research on creativity and convergence education in music but there are not many studies revealing the significance of convergence education within music education and most of all, there are almost no studies connecting creativity and convergence education in music.

Therefore, this study intends to discuss meaning of creativity and convergence in music education and the significance of connecting these within music education. Also, it aims to suggest a practical teaching-learning method that integrates creativity and convergence education. This study could have a high educational value from the standpoint that creative and convergent thinking which is considered highly desirable in the future society and such thinking could be cultivated through music education.

'Creativity' within music education was defined by the widely acknowledged definition of creativity blended with the characteristics of music. The musical creativity

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can be divided into 'Cognitive element' which has to do with the thought process¹, 'Behavioral element' which has to do with attitudes and tendencies², 'Environmental element' which has to do with other factors³, and 'Content element' which has to do with music itself. When it comes to musical activities and expression⁴, cognitive element involves creative thinking and this is where divergent thinking which involves thinking from a wider perspective and convergent thinking which involves elaboration are important⁵. Also, it is recognized that cognitive element alone is not enough to lead to musical creativity and therefore, the behavioral and environmental elements which involve motivation, sensibility, internal/external reward, and related skills (musical aptitude, experience) were included as well⁶.

Music by nature is attracted to originality and novelty and this makes all musical content and activity involve creativity. Therefore, learning and understanding musical concepts and functions must serve as a basis for making creative decisions which are made through divergent and convergent thinking. Also, personal tendencies, musical knowledge/experience, and environmental/contextual conditions affect the decision making process as well. And musical creativity can be invigorated through 'convergent' learning. Based on numerous studies, convergent education centered on music can deepen musical knowledge and understanding and help students to incorporate various concepts and elements from other fields into their music and learning⁷. Therefore, convergent learning within music education is a must and creative approaches from various fields including non-academic fields are encouraged along with problem solving skills in real life⁸. In other words, solving musical problems in real life is an educational process that involves integrating other various fields of study and knowledge and its goal is to create harmonious and creative musical products based on retained knowledge, skills, and experience⁹. Therefore, convergent thinking is a concept that is interconnected to creativity.

The concepts of creative and convergent learning mentioned above are summarized below.

First, creativity in music applies to all musical activities including songs, performance, listening, composing, analyzing and all of these activities help understand musical concepts, acquire skills and experience and this in turn results in the creation of new and original musical products.

Second, it is crucial to mutually develop convergent and divergent thinking altogether to develop creative thinking. Also, behavioral factors such as artistic sensibilities, motivation, and tendencies must be taken into consideration as well to develop creative thinking.

Third, creative thinking in music means that one performs music as one is affected by the environment, context, and situation and often requires to solve musical problems in convergence with real life. This makes it necessary for music to converge with not just within the music curriculum but other subjects and curriculums as well.

Fourth, from the teaching-learning perspective, an appropriate topic or learning material should be selected based on music education process and provide other related contents or elements from other subjects and attractive situation and environment to converge them together as well. Also, students should be able to utilize the knowledge or experiences pertaining to other various subjects to create their own original work.

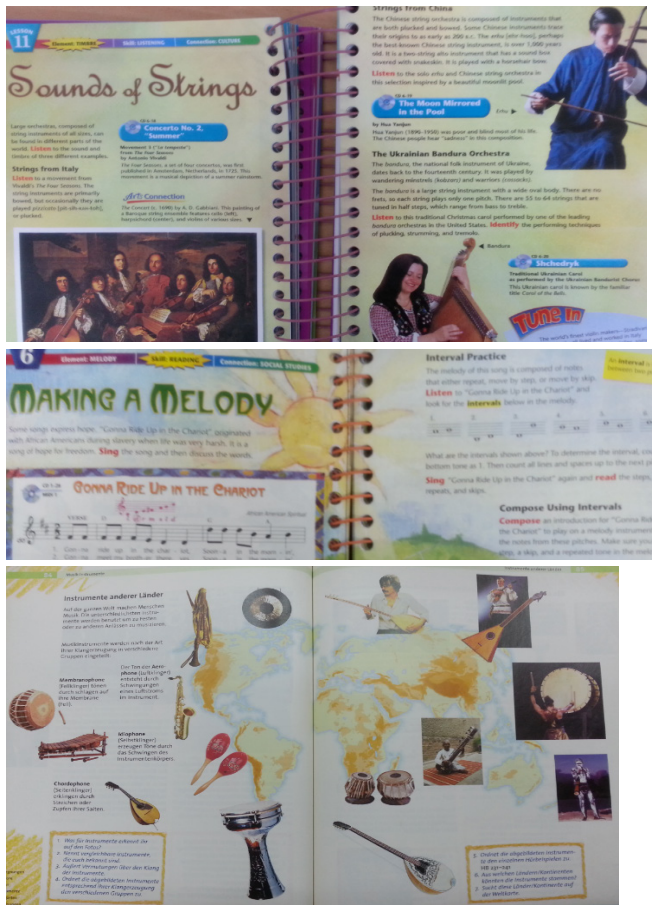
2. Methods

We applied literature methodology based on numerous sources to reveal the meanings of creativity and convergence within music education. Also, we have performed contents analysis on music textbooks to develop a specific teaching-learning method to apply these meanings of creativity and convergence within music education. In other words, we have found the meanings of creativity and convergence within literature study and analyzed the teaching-learning cases where such emphasis was made. The targets of analysis were the textbooks of US¹⁰, UK¹¹, Germany¹², and Singapore¹³. The units of analysis consisted of 'Contents', 'Methods', and 'Composition and Environment'.

3. Result

3.1 Analysis Results from Musical Content Perspective

From the musical content perspective, it is important to make learning feel natural rather than just listing certain musical concepts and facts as you converge various musical activities and expression. In other words, creative

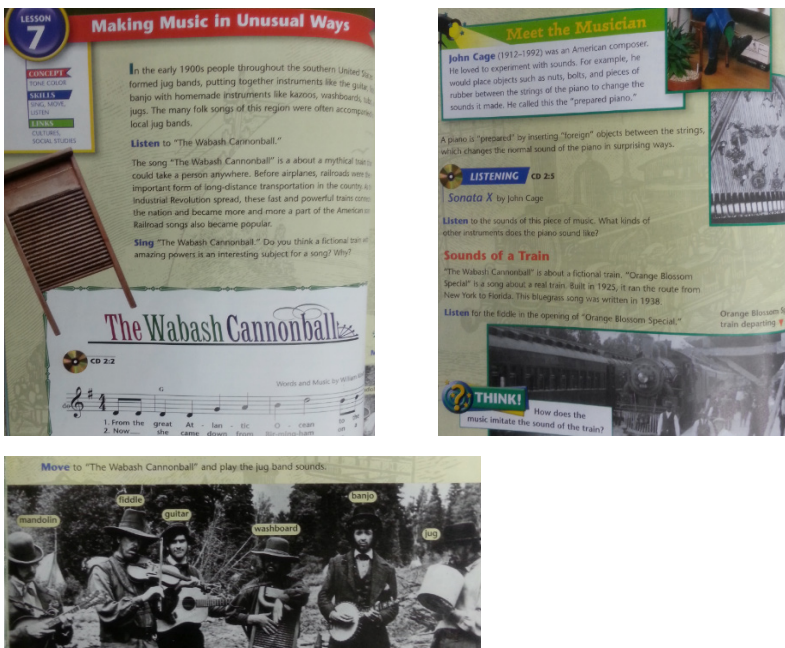


Convergence within the curriculum:
String music and instruments from various countries
Source: "Music making" from US (6th grade)

Convergence within the curriculum:
Connecting various musical activities and expression such as listening, singing, composing, reading music
Source: "Music making" from US (4th grade)

Convergence within the curriculum:
Practicing popular instruments from various countries/regions
Source: A textbook from Germany

Figure 1. Example of sequential learning within music subject.



Creativity: Composed to create music in a creative manner.

Convergence within curriculum:
Composed to convergence a musical factor, tone to musical expression and activities such as songs, movement, and listening during learning.

Convergence between curriculums:
Instructed to converge culture and social science curriculums.

Source: "Spotlight on music" from US (6th grade)

Figure 2. Example of sequential learning of music and other subject areas.

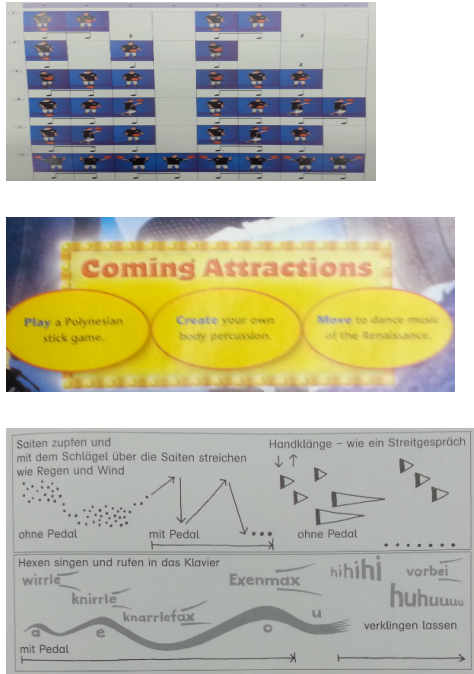


Figure 3. Example of learning by utilizing external expression of music.

Convergence between curriculums: Convergence of music(Note, comma) and physical education

Source: Textbook from Germany

Convergence within curriculum: Convergence of contents of Polynesian game music, creative percussion instrument playing, and Renaissance dance moves

Convergence between curriculums: Converge game, dance, and movement

Source: "Spotlight on music" from US (6th grade)

Convergence between curriculums: Converge music and picture

Source: Textbook from Germany

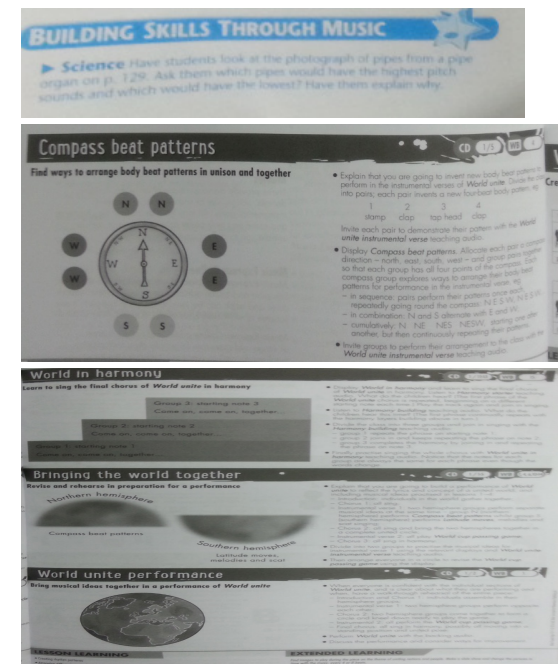
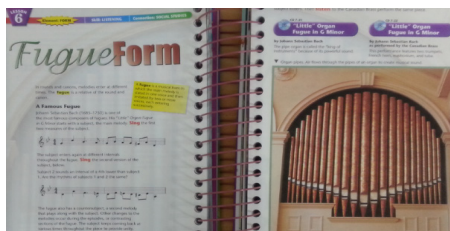


Figure 4. Example of sequential learning with other subjects.

Convergence within curriculum: Sing Fugue form and integrate emotional reaction for learning

Convergence between curriculums: Integrate the science behind pipe organ pitch differences

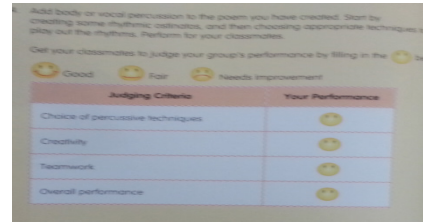
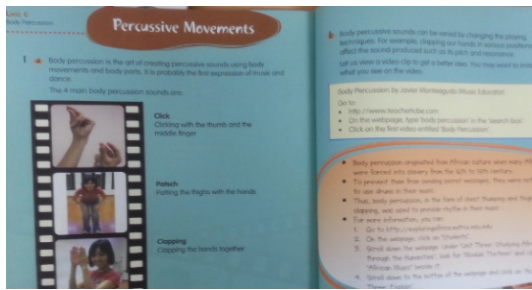
Source: "Music making" from US (6th grade)

Convergence between curriculums: Converge music tempo with compass

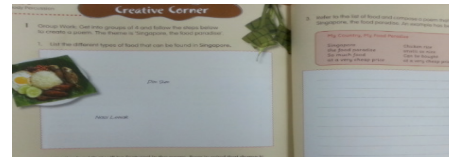
Source: "Music express" from UK (4-5th grade)

Convergence between curriculums: Converge music and science

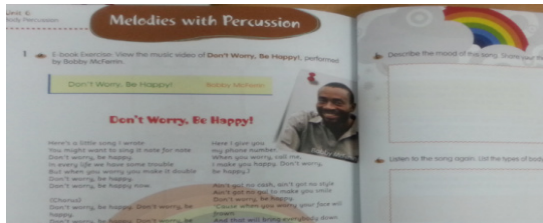
Source: "Music express" from UK (4-5th grade)



Convergence within curriculum: Converge voice, body, movement, melody, and other various expression methods with percussion instrument

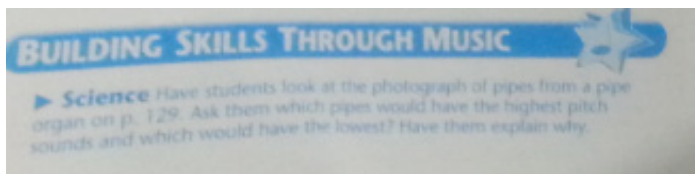


Convergence with real life: Composed to promote sequential/natural learning, Converge with real life elements (Pop music, food, etc.)

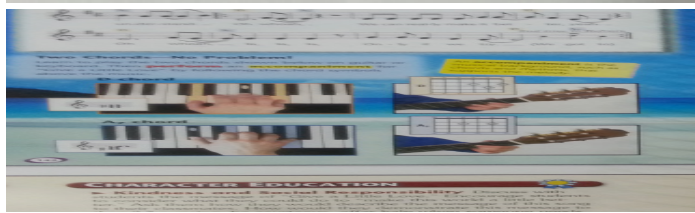


Source: "Perfect match music" from Singapore (4th grade)

Figure 5. Example of sequential composition of convergent learning.



Instruction in teacher edition textbook about convergence with other curriculums

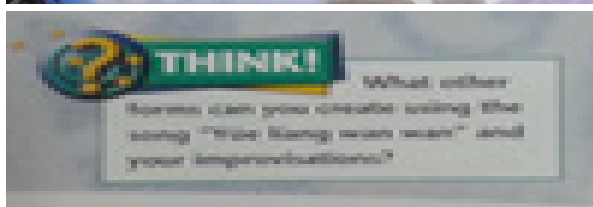


Source: "Music making" from US (6th grade)



Textbook instruction to converge contents within music and outside of music curriculum

Source: "Spotlight on music" from US (6th grade)



Suggest questions to inspire thinking in textbook

Source: "Spotlight on music" from US (6th grade)

Figure 6. Example of textbook composition and environmental perspective.

musical activity based on major elements and concepts of music must be encouraged by utilizing various musical pieces and topics from the west, Korea, or from real life. Figure 1 shows an example of a textbook composition that inspires creative thinking through converging musical contents, activities, and expression methods. For example, learning through numerous string instruments and string instrument musical pieces from various countries rather than learning a single string instrument or listening to a single string instrument musical piece, or other various musical activities such as listening to musical piece, singing, reading music, and composing melodies are recommended.

The example in Figure 2 is a learning process to create music in an unorthodox fashion and topic itself already has emphasis on creative musical capability. It is composed to converge musical expression methods such as song, movement, and listening to learn tone and it is also instructed to consider other various situations and contexts related to music. In other words, it is difficult to make students think while they are learning and will be nothing but a brainwash is if unrelated contents are just laid out in the textbook just because it is said that musical contents and activities must converge.

3.2 Analysis Results from Musical Learning Method Perspective

From the musical learning method perspective, it is necessary to converge various contents both within and

outside of music subject area. However, it is not about just listing other various contents outside of music subject area and these other contents shall be utilized accordingly with musical contents serving as the foundation. There are the following three instances: Fragmentary utilization of music and other various expression methods, convergence with other subjects or topics, and composition of sequential convergent learning.

First, the following example shows the fragmentary utilization of various expression methods from other subject areas. There is an example of learning notes and commas utilizing a ball. Also, there are various expression methods including pictures, movement, games, dance, etc. such as Polynesian game activities, exploration of and expression through physical percussion instrument sounds, movement according to the dance music during the Renaissance (Figure 3).

Secondly, converging beyond external musical expression method such as with curriculums and topics with music could be considered as well. For example, chord could converge with character development elements such as harmony, character, and responsibility and scientific principles related to the pitches of fugue form and the pipe organ could be converged to converge tempo from music, math, and science together (Figure 4).

Also, you can consider sequential direction of learning rather than stopping at just a single melody or topic when it comes to sequential learning as shown in above. For example, the example above has a unit's main topic is percussion instrument and this unit should converge with

Table 1. Contents of creative and convergent learning in music education

Category	Subcategories	Contents
Musical content	Curriculum	Musical expression method, musical activity(expression), music elements and concepts, musical context, etc.
Musical creativity	Cognitive element	Establishing and acquiring musical thinking process including factors such as fluency, flexibility, originality, and precision
	Emotional element	Artistic sensibility, attraction/motivation, tendencies(openness/independence/spontaneity/patience/compassion/immersion), etc.
Convergence based on music	Convergence within curriculum	Between music content(elements/concepts), musical expression methods and activities, musical content-activity(expression method)
	Convergence between subjects	Between music and other art subjects, between music and another subject, between music and another cross curriculum
	Convergence between curriculum, real life, and experience	Context, environment, and situations occurring within music and real life(world)
Environmental factor		Learning environment involving data/media, cooperative/mutual learning, homework, teacher's role such as teacher asking students the question

other various expression methods such as the voice, body, movement, and melody along with music in real life or food to sequentially and harmoniously teach the group (Figure 5).

3.3 Analysis Results from Content Composition and Learning Environment Perspective

Along with musical learning content and methods and from the textbook content composition and learning environment perspective, preparing an appropriate environment for creative teaching and learning for both students and teachers is important. As for textbook composition, textbooks must induce creative thinking from the students along with questions from teachers to inspire musical sensibility and interest as well as instructions within the textbooks to make creative and convergent learning for students possible. Also, learning objectives, activities, and evaluation must be composed to allow students self-directed learning and interactive/cooperative learning with other students as well. It is also necessary to suggest instruments or media with the class situation in consideration along with various learning materials for the development of creative thinking (Figure 6).

4. Conclusion

This study aimed to reveal the meanings and significance of creative and convergent learning within music education and attempted to suggest a practical method for learning in such manner based on the fact that creative and convergent learning is important in the classroom. It was verified that learning with both creativity and convergence meshed together held more significance rather than learning creativity and convergence separately. The summary of our discoveries can be found in Table 1.

Music education must be performed through sequential learning by converging musical concepts and activities with creative and convergent learning contents as its foundation. Also, various methods must be applied for convergent learning involving various fields other than music along with problem solving skill learning and cre-

ative thinking. Teachers asking questions to students and composing an appropriate learning environment as well as providing guidance are all crucial as well. If creative and convergent learning occur simultaneously within music education, this in turn will contribute to the competence of students for the future and also contribute to the acknowledgement of music education's importance.

5. References

1. Choi ES. The development of a conceptual model of the creativity-centered instrumental music instruction. *Korean Journal of Research in Music Education*. 2005; 28:155–79.
2. Hickey M. Why and how to teach music composition: A new horizon for music education. *R&L Education*. 2003; 248 pp.
3. Odena O. *Musical Creativity: Insights from music education research*. Routledge. 2012.
4. Min S. The effect of musical activities programs on parenting efficacy and resilience of mothers with preschool children. *Indian Journal of Science and Technology*. 2016 Jul; 9(25):650–56.
5. Shin HK, Chung JW. The development of a creativity-centered education program for the musically gifted. *Korean Journal of Research in Music Education*. 2012; 41(1):25–47.
6. Kim S-W, Lee YL. The analysis on research trends in programming based STEAM education in Korea. *Indian Journal of Science and Technology*. 2016 Jun; 9(24):1–11.
7. Cho DH. The development of convergence subjects using a concept map. *Journal of Music Education Science*. 2015; 24:105–23.
8. Eaton A. STEAM power: Music and the arts as part of a comprehensive education. *Music Educators Journal*. 2014; 101(1):16.
9. Fehr RC. On Capitol Hill, NAME makes a case for adding the arts to a STEAM education. *Teaching Music*. 2014; 22(1):14.
10. Burdett S. *Making Music*. Silver Burdett. 2008.
11. Bryant A. *Teaching Key Stage 2 Music, pap/com (edn)*, Faber Music Ltd. 2007; 106 pp.
12. Fidelio. Available from: <https://www.metopera.org/Season/2016-17-Season/fidelio-beethoven-tickets/>. Date Accessed:2016.
13. Zhu AL. *Perfect Match Music*. Pearson Longman. 2009.