Chinese Students’ Perceptions of Creativity: The Role of School Education and Music Teachers, and Students’ Preferences for Music Genres and Music Activities

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Abstract: In response to the challenges of globalisation since the 2000s, The Chinese Government has developed creative industries through education reforms by moving away from rote instruction and examination-orientated learning to student-centred creative practices. China has emphasised the importance of creativity and innovation in its national development and the role of education in fostering students’ creativity in a culturally diverse nation and world. With particular reference to the city of Changsha (the first UNESCO city of media arts in China), this paper explores Chinese students’ perceptions of creativity in learning and experiencing creativity within and beyond classroom music. The principal research question of this study was threefold: (1) to discover the values of students’ creativity in school education and the role of music teachers; (2) to assess creativity in taught different music genres in classroom music lessons; and (3) to examine the importance of creativity through music activities in formal and informal education. Data from a sample of 1,958 Chinese school students, mainly aged between 11 and 15, from seven schools were collected between 2019 and 2020. Based on the data, the findings of this study showed that there are challenges to the role of school education and music teachers in providing rich opportunities for students in respect to music activities and music genres. Music teachers must consider means to cultivate creativity and creative attitudes and encourage students across primary and secondary school levels to develop their creativity.

Keywords: Creativity; school music education; Chinese students; perceptions

Introduction

The importance of human creativity is widely recognised as a catalyst for innovation, adaptability, and survival in a rapidly changing world. Creative thinking and/or the ability to creatively discover and bring about creativity is one of the abilities that is typically considered an important element of students’ education (Miller, 1986; Robinson, 1998, 2015). Creativity, or creative thinking, has been found to have a crucial influence in many areas, such as the arts, economics, sciences, technology, and education (Organisation for
Economic Co-operation and Development, 2019). The concern of creativity as a constituent of twenty-first century education development has earned widespread recognition not only in Western countries but also in Asian societies.

In many countries, teachers have autonomy in their own classrooms and can decide how teaching and learning is arranged. There is a positive relationship between teachers’ creativity and students’ motivation in learning creativity (Chen & Yuan, 2021; Conradty & Bogner, 2020; Thorne, 2007). The distinction between teaching creatively and teaching for creativity was forged by the National Advisory Committee on Creative and Cultural Education (1999) report, which explained the former as ‘using imaginative approaches to making learning more interesting and effective’ (p. 89), while describing the latter as the objective of recognising young people’s creative abilities, and encouraging and making available opportunities for the development of those capabilities (Jeffery & Craft, 2004, p. 81). The focus of creative teaching is on teachers’ practices, whereas the emphasis of teaching for creativity is on learners, with personal agency at the nucleus (Craft, 2005). A ‘creative music teacher’ is described as someone who fosters children’s creative thinking and arouses curiosity about music, appraises their work objectively, and inspires them to actively participate in the music lesson (Brinkman, 2010; Kladder & Lee, 2019; Robinson, Bell, & Pogonowski, 2011). Music teachers play a very important role in maintaining and encouraging student creativity across a variety of music teaching and learning contexts (Graham, 1998; Kladder & Lee, 2019; Kupers & Dijk, 2020).

Moreover, from the very beginning, the creative exploration of music practices (particularly music listening) should be a large component of music teaching, including a wide variety of music styles (see Feinberg, 1973; Kratus, 2017; Peterson, 2006). Many current practices in educational settings are established on the assumption that multicultural experiences foster creativity (Cain, Lindblom, & Walden, 2013; Chiu & Leung, 2007; Hartley & Plucker, 2014; Leung et al., 2008). Music as a creative practice is enclosed in music genres ranging from the classical tradition to jazz and popular music, and musical creativity is thought of in terms of collaboration and real-time performance (Cook, 2018). Burnard (2007) moved the discussion beyond the bounds of classical music and school music, arguing for a pluralistic view of musical creativity, as well as a provisioning of musical creativity in everyday life. If active music listeners (or critical music listeners) are involved in diverse means of listening, they will obtain more musical experiences to achieve creative performances (Frith & Loprinzi, 2018; Green, 2014; Smiraglia, Asaah, & Lacerda, 2018).

Traditionally, music education has focused on the learning of music theory, music history, and performance, with singing and instrument playing as the dominant classroom activities. In recent decades, classroom activities have been broadly extended to studies in creative music-making through composition (Barrett, 2006, 2016; Swanwick, 1999), creative music listening (Peterson, 2006; Rinsema, 2017), and instrumental improvisation (Burnard & Dragovic, 2015; Ros, 2009). Built upon Webster’s musical creativity (2002), Rinsema (2017, 2021) proposed an ecological model of a greater variety of musical creativities, including listening, improvisation, and digital composition and production. Listening to music (or
music appreciation) as a creative activity follows ‘the ecological view of perception’ (Rinsema 2021, p. 109; also see Randles & Webster, 2012). The more experience and skill students have with a particular instrument, the more success they will display when creating improvisations that are applied with that instrument (Brophy, 2001). Music technology classes provide an accomplished environment for creative development, allowing self-awareness of one’s creative process and the cultivation of experimental learning and creative thinking skills (Crow, 2006; Kladder, 2016; Rosen, Schmidt, & Kim, 2013). However, creativity is often neglected by music teachers (Hickey & Webster, 2001; Webster, 2002), and many teachers do not feel comfortable composing or improvising themselves; therefore, they do not teach it in their classrooms (Odena, 2001, 2003).

Within this context, the purpose of this current study was to examine students’ perceptions of the development of creativity education, the role of music teachers, and their perceived integration of creativity into learning music genres (embracing a wide range of Western classical, Chinese classical, popular, and folk music), as well as their participation in music activities. This paper will address three specific research questions:

1. What are students’ perceptions of creativity in school education and the role of music teachers in developing their creativity in school music education?
2. What are students’ perceptions of diverse music styles in the implementation of creativity in school education?
3. What are students’ preferred music activities in the introduction of creativity education in both classroom music and extracurricular activities?

Creativity in school music education in China

Like Western countries, in response to the challenges of globalisation since the beginning of the 2000s, China has highlighted the prominence of creativity and innovation in its national and educational development. The Ten-Year Plan sketched the orientation for education reforms between 2010 and 2020, including a new educational spirit and continual education reform, new rounds of teacher recruitment and educational governance, and new teaching pedagogies (including the application of information and communication technologies in education) (The Central People’s Government of the People’s Republic of China, 2010; also see He et al., 2020; Chen, 2016). The approach to arts education focuses on the progress of experiential learning, combining a range of art forms and cultures with experimental pedagogy. The current curriculum guidelines encourage creative music-making in order to fabricate classes with more enjoyment to motivate students more (Ministry of Education, 2011, 2017).

Active music participation can cultivate and strengthen young students’ personality, imagination, and creativity in their musical, personal, and social development (see Li, 2012; Li, 2016; Yang, 2016). Music activities such as composing, improvising, and critical listening encourage students’ distinct comprehension of the practice and structure of music, and simultaneously help them to thrive in their creativity and imaginative thinking by employing components of music for expressive outcomes (see Jiang, 2021; Ministry of Education, 2011,
The aspects of composition/improvisation exercises and instructional methods of teaching and learning musical elements can be discovered in many modes, inclusive of the creation of music notations for rhythms and melodies for creative communication in music. Music activities such as critical listening, composing, and improvising can help students to develop their creativity and imaginative thinking by using musical elements for expressive effects (Ho, 2019; Kratus, 2017; Law & Ho, 2009; Wang, 2020).

To stimulate creativity, Chinese authorities, local authorities, and teachers have been given more freedom to exercise curriculum development to develop a flexible curriculum (Preus, 2007; Zhao & Zhao, 2012). School music education should provide an environment to motivate and enrich students in creativity education, as well as help students to experience diverse music styles and participate in music activities (Ho, 2019). For example, the creative process in popular music education has attempted to facilitate active learning, unlock creative potential, and add value to students (Hou, 2012; Yang, 2019). It has been suggested that music teachers discover means to compound traditional singing and listening activities with creative music-making in the incorporation of new teaching materials and a more open learning environment (Law & Ho, 2009; Wang, 2020). The classroom is a dynamic, interactive, and ever-changing environment; thus, teachers are essential in facilitating creativity through the given materials and activities provided, and teachers must be more adaptable and flexible (see Guo, 2004; Huang & Szente, 2014; Lockette, 2012). It is apparent that the background of music teachers has a marked influence on students’ learning attitudes towards creativity in music education (see He et al., 2020; Wei, 2020; Xiao, 2019). Utilising music technology is regarded as a model for creativity development in school music education (Zeng & Liu, 2020).

The study

No extant study has directly compared the learning of creativity education, music cultures, and school music education in the development of the school curriculum in China. Focusing particularly on students’ perspectives in Changsha, the main purpose of the study was to gain an understanding of school students’ views on creativity in music education that they experienced in respect to their practices in the music subject, music participation, and music styles and in response to the implementation of creativity in the school curriculum. In Changsha’s schools, music is a compulsory subject in the school curriculum for nine-year compulsory basic education. Many schools in Changsha present three 40-minute music lessons weekly in Grades 1 through 6, while junior secondary schools usually offer two 40-minute music lessons weekly in the curriculum. Comparatively, the number of music periods is higher than in other Chinese cities, which mostly conduct two music lessons weekly. Primary school education in Changsha lasts six years, and it is intended for children aged six to 12, while students attending junior secondary school education are 12 to 15 years of age.

Selection of research area: Changsha

This study was conducted in Changsha, the capital of central China’s Hunan Province, due to its rich culture – including its cultural heritage as well as its innovation and creativity. Changsha, a famous cultural city with a history of more than 3,000 years, is the capital of Hunan (which literally means ‘south of the lake’) Province located in the centre of South
China, with a population of 10 million. The majority of people who live in Changsha are Han Chinese, with the three largest ethnic minority groups of Hui, Miao, and Tujia peoples.

Changsha is one of the fastest growing major cities in China. In November 2017, Changsha was named the ‘City of Media Arts’ (regarded as a singular honour as the first city in China to receive the designation) in the UNESCO Creative Cities Network. As of 2020, Changsha was ranked as one of the top 10 innovation-oriented cities in China. Changsha, regarded as an innovative hub, also enjoys the titles ‘Culture City of East Asia’ and ‘International Gourmet City’. Changsha’s reputation garnered the distinction of being one of China’s happiest cities in 2021, an accolade it has been given for 13 consecutive years. Currently, Changsha is a hot spot for the development of media arts, creative culture, creative industries, and innovative types of fireworks. Many of the popular TV shows in China are conceived and produced in Changsha, including Super Girl Voice (a female-only singing contest) by Hunan Broadcasting Systems. High-tech industries and new technologies have become key drivers of economic growth in Changsha (Huang, 2014; Nauta, 2021).

Changsha, as in other big Chinese cities, built a smart education cloud platform that established more than 4,000 online classrooms equipped with online teaching for 1.08 million primary and secondary school students during the COVID-19 pandemic (Yuan, 2020). Education is one of the embodiments of Changsha’s creative industries and technology. The Changsha Municipal Government has worked towards the development of a creative environment for young people, for example, the Sky City Education Centre, which offers courses on digital technology and artificial intelligence.

**Methodology**

Survey research was adopted in this study, which centred on quantifying the collection and analysis of survey data on Changsha’s school students. As elsewhere in China, it is difficult to obtain access to schools for research purposes (particularly during the 2019–2020 social movement in Hong Kong, and with the different periods of opening and closing of schools during the COVID-19 pandemic in Changsha). In response to the COVID-19 pandemic outbreak, the Chinese Government ordered nationwide school closure as an emergency measure to minimise the risk of spreading the virus, and students were confined to online learning at home. The informants of the main survey were recruited via email, phone, and social media invitation.

This study employed a self-designed anonymous questionnaire to collect the views of a large sample of student informants in an economic and operative means (Cohen, Manion, & Morrison, 2018). Many secondary schools would not allow their senior grade students to participate in the survey as they had a very tight schedule to prepare for the National College Entrance Examination (commonly known as Gaokao). Many primary schools maintained that they also had a rigid teaching timetable (particularly after schools reopened following the levelling of COVID-19 cases) and they did not have time to participate in the study. In the end, one
primary and six junior secondary schools in the city of Changsha volunteered to participate in this study.

According to the survey instruments, quantitative analysis (e.g., mean, standard deviation, percentage, cross-tabulation description, and the analysis of variance [ANOVA]) was conducted using the Statistical Package for Social Sciences functions. The questionnaire included closed items with multiple-choice answers and structured ratings using a 5-point Likert scale (from 1 = ‘highly disagree’/’highly dislike’ to 5 = ‘highly agree’/’highly like’) to allow the students to express degrees of agreement, consent, significance, or frequency. The survey questionnaire had four purposes: (1) to gather the students’ demographic information (gender, age, and grade level) and music background, such as their attitudes towards music and instrument learning; (2) to explore their views on the sources of creativity education and the capacity of school music education and music teachers in creativity education; (3) to collect their views on the importance of creativity in their music participation in both classroom music and extracurricular activities; and (4) to elicit their preferences for learning diverse music styles in practising creativity in school education.

Procedure

This study underwent ethical clearance for research entailing human participants and personal data from the Committee on the Use of Human and Animal Subjects in Teaching and Research in the researcher’s educational institution.

To ensure that its wording and terms were intelligibly understood by the student respondents, the study conducted a pilot questionnaire with a sample of Chinese school students between April and June 2019, and comments were given by a team of local school music teachers and educators teaching in China’s higher education. Most of the schools would only approve a short questionnaire survey lasting no more than 10 minutes. Based on the responses in the pilot questionnaires, some items were slightly modified, such as a sentence or word expression employed in the mainland. The pilot study provided the researcher with ideas, clues, and approaches that she might not have foreseen before conducting the main investigation. Errors were altered and re-piloted during the summer break between mid-July and August 2019 until no further changes were considered obligatory.

Schools were invited to participate in the main investigation in September 2019. A copy of the questionnaire and the information sheet were sent to the schools for approval. During the COVID-19 pandemic in 2020, many schools in China were closed between January and February and reopened in March, and some closed again in June and July 2020 amid new outbreaks of the virus. Upon approval granted by the school authorities, the main survey was administered from October 2019 to June 2020.

The teachers who directed the survey were free to choose the student participants, and the teachers served as facilitators in delivering and returning the questionnaires. The students
were given about 10 minutes during in-school lessons to finish the questionnaire according to the instructions given by the school principals and their individual teachers.

Findings of the study

Participants

The data analysed in this study was obtained from a sample of six co-educational public secondary schools (including one private and five public schools) and one public primary school in Changsha. Data from a sample of 1,958 school students (915 girls, 973 boys, and 70 unknown gender) were collected. Of the valid responses, 73 (3.7%) respondents were in Grade 4; 82 (4.2%) were in Grade 5; 49 (2.5%) were in Grade 6; 992 (50.7%) were in Grade 7; 489 (25.0%) were in Grade 8; and 226 (14.2%) were in Grade 9 (see Figure 1 for the grade distribution with gender).

![Figure 1. Grade distribution of students who completed the questionnaire survey](image)

Among the valid responses, most students were between the ages of 11 and 15. Forty-seven (2.5%) students indicated that they disliked music very much, compared with 802 (42.0%) who liked it very much; the average mean for all students was 4.04 (SD = 1.02) (from 1 = ‘very much dislike’ to 5 = ‘very much like’). Of the valid responses, 997 out of 1,909 (52.2%) students studied a musical instrument. Many of them learned more than one musical instrument, with
931 playing the piano, 666 the violin, 609 the recorder, 241 the guitar, 163 the flute, 114 the clarinet, 85 the cello, and 44 the viola.

**Students’ attitudes towards creative potential and creativity education**

The students were asked whether they had the potentiality to be creative and to utilise their creativity to make their life more interesting. Of the valid responses of the primary and secondary school students, 495 (25.3%) ‘agreed’ and 605 (30.9%) ‘highly agreed’ that they had creative potential to make their life more appealing.

The average mean of the students was 3.75 (SD = 1.09), with the corresponding means of 3.78 (SD = 1.13) and 3.72 (SD = 1.08) (from 1 = ‘highly disagree’ to 5 = ‘highly agree’). Overall, the student respondents considered that the value could be found in creativity education in school learning.

The average mean scores were 4.17 (SD = 0.97) and 4.13 (SD = 1.00) (from 1 = ‘highly disagree’ to 5 = ‘highly agree’) for respective primary and secondary school students.

There was a statistically significant difference between the primary school and secondary school students as determined by the one-way ANOVA regarding the importance of having creativity education in school \[F(6, 1910) = 2.981, p = 0.007\]. However, there was no significant difference between instrument learners and non-instrument learners between the primary school and secondary school students.

Both the primary and secondary school students rated ‘valuing a creative mind for the future’ (1,348 responses) as the most important element in learning creativity education, followed by ‘valuing the heart of cultural creativity’ (805 responses), ‘valuing my educational development’ (665 responses), ‘valuing my country’ (655 responses), ‘valuing the achievements of human society’ (469 responses), and ‘valuing my city’ (319 responses).

Adopting the one-way ANOVA, no statistically significant difference was found between the primary and secondary school students regarding their perceived encouragement given by their schools in the development of creativity.

**Students’ attitudes towards the place of creativity in the music subject and the importance of school music teachers**

Overall, the students were asked to indicate their level of agreement that school subjects should contain creativity in school learning. The three most preferred subjects for creativity education in the curriculum were visual arts, technology, and music (see Table 1).
Table 1. Overall average mean scores of the students’ preferences for the incorporation of creativity into school subjects

<table>
<thead>
<tr>
<th>School Subjects</th>
<th>Means of Primary School Students</th>
<th>Means of Secondary School Students</th>
<th>Means of All Students</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual arts</td>
<td>4.39 (SD = 0.99)</td>
<td>4.29 (SD = 1.08)</td>
<td>4.30 (SD = 1.07)</td>
<td>1</td>
</tr>
<tr>
<td>Technology</td>
<td>4.26 (SD = 1.05)</td>
<td>4.26 (SD = 1.08)</td>
<td>4.26 (SD = 1.08)</td>
<td>2</td>
</tr>
<tr>
<td>Music</td>
<td>4.26 (SD = 1.07)</td>
<td>4.23 (SD = 1.10)</td>
<td>4.23 (SD = 1.10)</td>
<td>3</td>
</tr>
<tr>
<td>Sciences</td>
<td>4.01 (SD = 1.51)</td>
<td>4.29 (SD = 1.15)</td>
<td>4.19 (SD = 1.15)</td>
<td>4</td>
</tr>
<tr>
<td>Physical education</td>
<td>4.17 (SD = 1.18)</td>
<td>4.01 (SD = 1.22)</td>
<td>4.03 (SD = 1.23)</td>
<td>5</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4.21 (SD = 1.11)</td>
<td>3.93 (SD = 1.27)</td>
<td>3.96 (SD = 1.26)</td>
<td>6</td>
</tr>
<tr>
<td>Chinese language</td>
<td>4.01 (SD = 1.17)</td>
<td>3.85 (SD = 1.23)</td>
<td>3.87 (SD = 1.22)</td>
<td>7</td>
</tr>
<tr>
<td>English language</td>
<td>3.99 (SD = 1.17)</td>
<td>3.85 (SD = 1.26)</td>
<td>3.86 (SD = 1.25)</td>
<td>8</td>
</tr>
</tbody>
</table>

Note: *From 1 = ‘highly disagree’ to 5 = ‘highly agree’

Both the primary and secondary school students had the same responding mean for the technology subject. Besides the science and technology subjects, the primary school students maintained higher ratings than the secondary school students for creative education across multiple school subjects (see Table 1). Generally, most students maintained that creativity was the core element to be integrated into school music lessons (M = 4.06, SD = 1.04) (from 1 = ‘highly disagree’ to 5 = ‘highly agree’), while the respective mean scores for primary and secondary school students were 4.13 (SD = 0.99) and 4.05 (SD = 1.04). The students were also asked to rate their most important sources of creativity education, and the top three highest responses of the total responses were ‘school music teachers’, ‘tutors for teaching musical instruments’, and ‘parents’ (see Table 2).

Table 2 Responses of students’ perceptions of their top six most influential sources of creativity education

<table>
<thead>
<tr>
<th>Sources</th>
<th>Number of Responses among Primary School Students</th>
<th>Number of Responses among Secondary School Students</th>
<th>Total Responses</th>
<th>Rank of Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>School music teachers</td>
<td>84</td>
<td>495</td>
<td>579</td>
<td>1</td>
</tr>
<tr>
<td>Tutors for teaching musical instruments</td>
<td>26</td>
<td>286</td>
<td>312</td>
<td>2</td>
</tr>
<tr>
<td>Parents</td>
<td>44</td>
<td>152</td>
<td>196</td>
<td>3</td>
</tr>
<tr>
<td>Popular idol(s)</td>
<td>17</td>
<td>161</td>
<td>178</td>
<td>4</td>
</tr>
<tr>
<td>The Internet</td>
<td>8</td>
<td>160</td>
<td>168</td>
<td>5</td>
</tr>
<tr>
<td>Mass media (e.g., radio and television)</td>
<td>5</td>
<td>37</td>
<td>42</td>
<td>6</td>
</tr>
</tbody>
</table>

In respect to the music teachers’ encouragement and support in the development of musical creativity, the students’ overall average mean was 3.96 (SD = 1.08) (from 1 = ‘highly disagree’ to 5 = ‘highly agree’). The respective means for the primary and secondary school students were 4.06 (SD = 1.03) and 3.95 (SD = 1.08). Using the one-way ANOVA, there was a statistically significant difference found between the primary and secondary school students.
regarding their perceived encouragement given by their music teachers in creativity education \[F(6, 1910) = 2.475, p = 0.022\]. However, no significant difference was found between instrument learners and non-instrument learners in their perceptions of the support and encouragement of music teachers in creativity education.

**Students’ attitudes towards music participation in creativity education**

This study attempted to explore the students’ preferred activities conducted in music lessons as well as in extracurricular activities. When asked to consider music activities associated with creativity that should be taught in school music lessons, the three most preferred music activities among the primary and secondary school students were ‘music appreciation’, ‘singing’, and ‘instrument playing’ (see Table 3).

**Table 3. Preferred music activities that students considered were associated with creativity and should be taught in school music classes**

<table>
<thead>
<tr>
<th>Sources</th>
<th>Number of Responses among Primary School Students</th>
<th>Number of Responses among Secondary School Students</th>
<th>Total Responses</th>
<th>Rank of Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music appreciation</td>
<td>114</td>
<td>1,072</td>
<td>1,186</td>
<td>1</td>
</tr>
<tr>
<td>Singing</td>
<td>115</td>
<td>1,016</td>
<td>1,131</td>
<td>2</td>
</tr>
<tr>
<td>Instrument playing</td>
<td>75</td>
<td>774</td>
<td>848</td>
<td>3</td>
</tr>
<tr>
<td>Music and storytelling</td>
<td>69</td>
<td>673</td>
<td>744</td>
<td>4</td>
</tr>
<tr>
<td>Music and movement</td>
<td>65</td>
<td>571</td>
<td>736</td>
<td>5</td>
</tr>
<tr>
<td>Music composition with technology</td>
<td>37</td>
<td>396</td>
<td>433</td>
<td>10</td>
</tr>
<tr>
<td>Improvisation</td>
<td>44</td>
<td>579</td>
<td>623</td>
<td>6</td>
</tr>
<tr>
<td>Music theory</td>
<td>34</td>
<td>251</td>
<td>605</td>
<td>8</td>
</tr>
<tr>
<td>Music and art</td>
<td>47</td>
<td>211</td>
<td>568</td>
<td>9</td>
</tr>
<tr>
<td>Music composition without technology</td>
<td>37</td>
<td>396</td>
<td>433</td>
<td>10</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>36</td>
<td>40</td>
<td>11</td>
</tr>
</tbody>
</table>

The primary school students (M = 3.57, SD = 1.26) maintained a higher respective mean score for the integration of creativity into music performing activities conducted in school music lessons compared with the secondary school students (M = 3.24, SD = 1.16) (from 1 = ‘highly disagree’ to 5 = ‘highly agree’). It was a similar case for the incorporation of creativity into music composing activities in school music lessons (for primary school students: M = 3.35, SD = 1.22; and for secondary school students: M = 3.00, SD = 1.22; from 1 = ‘highly disagree’ to 5 = ‘highly agree’). However, when the students were asked about their attitudes towards the use of modern technology to compose music in creativity education, the average means were, respectively, 3.08 (SD = 1.26) for the primary school students and 3.75 (SD = 1.16) for the secondary school students (from 1 = ‘highly disagree’ to 5 = ‘highly agree’). There was a statistically significant difference between the primary school and secondary school students as determined by the one-way ANOVA in using modern technology for composition in creativity education \[F(6, 1910) = 4.356, p = 0.001\], yet no significant difference was shown between instrument learners and non-instrument learners in the use of modern technology for composition in creativity education.
Extracurricular activities (sometimes known as a part of life-wide learning) have long been promoted in informal music education to help students cultivate creativity in terms of complementing classroom experience. When asked about whether extracurricular music activities could be beneficial in creativity education, the average responding mean of all the students was 3.89 (SD = 1.09), with 3.90 (SD = 1.12) for the primary school students and 3.88 (SD = 1.08) for the secondary school students (from 1 = ‘highly disagree’ to 5 = ‘highly agree’). Among all the students, the three most preferred extracurricular music activities included ‘popular music class’, ‘music appreciation class’, and ‘school choir’ (see Table 4).

Table 4. Preferred extracurricular music activities that students considered were associated with creativity and should be taught in school music classes

<table>
<thead>
<tr>
<th>Extracurricular Music Activities</th>
<th>Number of Primary School Students</th>
<th>Number of Secondary School Students</th>
<th>Number of Total Responses</th>
<th>Rank of Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Popular music class</td>
<td>54</td>
<td>1,034</td>
<td>1,118</td>
<td>1</td>
</tr>
<tr>
<td>Music appreciation class</td>
<td>43</td>
<td>473</td>
<td>526</td>
<td>2</td>
</tr>
<tr>
<td>School choir</td>
<td>57</td>
<td>453</td>
<td>510</td>
<td>3</td>
</tr>
<tr>
<td>Music and art</td>
<td>53</td>
<td>411</td>
<td>464</td>
<td>4</td>
</tr>
<tr>
<td>Musicals</td>
<td>26</td>
<td>429</td>
<td>455</td>
<td>5</td>
</tr>
<tr>
<td>Electronic music class</td>
<td>25</td>
<td>460</td>
<td>425</td>
<td>6</td>
</tr>
<tr>
<td>Learning composing class</td>
<td>29</td>
<td>325</td>
<td>354</td>
<td>7</td>
</tr>
<tr>
<td>School band music</td>
<td>25</td>
<td>331</td>
<td>346</td>
<td>8</td>
</tr>
<tr>
<td>Music and movement</td>
<td>12</td>
<td>230</td>
<td>250</td>
<td>9</td>
</tr>
<tr>
<td>Beijing opera class</td>
<td>13</td>
<td>209</td>
<td>222</td>
<td>10</td>
</tr>
<tr>
<td>Jazz club</td>
<td>4</td>
<td>140</td>
<td>204</td>
<td>11</td>
</tr>
<tr>
<td>School Western orchestra</td>
<td>8</td>
<td>195</td>
<td>203</td>
<td>12</td>
</tr>
<tr>
<td>Folk song class</td>
<td>14</td>
<td>161</td>
<td>172</td>
<td>13</td>
</tr>
<tr>
<td>Jazz singing class</td>
<td>4</td>
<td>140</td>
<td>144</td>
<td>14</td>
</tr>
<tr>
<td>Chinese orchestra</td>
<td>11</td>
<td>104</td>
<td>115</td>
<td>15</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>38</td>
<td>38</td>
<td>16</td>
</tr>
</tbody>
</table>

When the students were asked about whether they would be happy to have more opportunities to participate in music activities to develop their musical creativity, the overall responding mean was only 2.48 (SD = 1.19) (from 1 = ‘highly dislike’ to 5 = ‘highly like’). The secondary school students achieved a higher responding mean (M = 2.51, SD = 1.16) compared with the primary school students (M = 2.25, SD = 1.19). However, the t-test analysis demonstrated that no significant difference was obtained in the statement of having more possibilities to partake in music activities to generate musical creativities between primary and secondary school students.

**Students’ attitudes towards music genres for creativity education**

The students were asked whether they believed that their creativity could be increased if they knew more about diverse music genres. Broadly, the primary school students (M = 4.14, SD = 1.02) showed more positive attitudes compared with the secondary school students (M = 4.03, SD = 1.06) (from 1 = ‘highly disagree’ to 5 = ‘highly agree’) towards experiencing creativity through culturally diverse music. Among the overall responses, Chinese popular music was the most welcomed music genre in the learning of creativity, while other world music such as African and Indian music was the least welcomed (see Table 5).
Comparatively, the primary school students maintained a slightly higher responding means than the secondary school students for contemporary Chinese music, traditional Chinese music, Chinese folk songs, English folk songs, and other world music. The secondary school students had comparatively higher means for Chinese popular music and other popular music genres, Western musicals, and Western classical music (see Table 5).

Table 5. Students’ ratings of various music genres with the integration of creativity in classroom music lessons

<table>
<thead>
<tr>
<th>Music Genres</th>
<th>Means of Primary School Students</th>
<th>Means of Secondary School Students</th>
<th>Means of All Students</th>
<th>Rank of All Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese popular songs</td>
<td>4.15 (SD = 1.36)</td>
<td>4.21 (SD = 1.59)</td>
<td>4.20 (SD = 1.18)</td>
<td>1</td>
</tr>
<tr>
<td>Contemporary Chinese music</td>
<td>4.37 (SD = 1.19)</td>
<td>3.89 (SD = 1.24)</td>
<td>3.92 (SD = 1.24)</td>
<td>2</td>
</tr>
<tr>
<td>English popular songs from the United States and the United Kingdom</td>
<td>3.22 (SD = 1.60)</td>
<td>3.89 (SD = 1.29)</td>
<td>3.82 (SD = 1.36)</td>
<td>3</td>
</tr>
<tr>
<td>Japanese popular songs</td>
<td>2.69 (SD = 1.63)</td>
<td>3.39 (SD = 1.51)</td>
<td>3.31 (SD = 1.51)</td>
<td>4</td>
</tr>
<tr>
<td>Traditional Chinese music</td>
<td>3.62 (SD = 1.43)</td>
<td>3.26 (SD = 1.33)</td>
<td>3.28 (SD = 1.34)</td>
<td>5</td>
</tr>
<tr>
<td>R&amp;B or hip-hop</td>
<td>3.12 (SD = 1.53)</td>
<td>3.20 (SD = 1.48)</td>
<td>3.28 (SD = 1.49)</td>
<td>6</td>
</tr>
<tr>
<td>Korean popular songs</td>
<td>2.74 (SD = 1.52)</td>
<td>3.14 (SD = 1.51)</td>
<td>3.09 (SD = 1.51)</td>
<td>7</td>
</tr>
<tr>
<td>Western classical music</td>
<td>2.98 (SD = 1.37)</td>
<td>3.00 (SD = 1.36)</td>
<td>3.00 (SD = 1.36)</td>
<td>8</td>
</tr>
<tr>
<td>Chinese folk songs</td>
<td>3.55 (SD = 1.49)</td>
<td>2.92 (SD = 1.36)</td>
<td>2.99 (SD = 1.37)</td>
<td>9</td>
</tr>
<tr>
<td>English folk songs from the United States and Europe</td>
<td>3.02 (SD = 1.44)</td>
<td>2.95 (SD = 1.36)</td>
<td>2.96 (SD = 1.37)</td>
<td>10</td>
</tr>
<tr>
<td>Blues and jazz music</td>
<td>2.78 (SD = 1.51)</td>
<td>2.89 (SD = 1.41)</td>
<td>2.88 (SD = 1.42)</td>
<td>11</td>
</tr>
<tr>
<td>Western musicals</td>
<td>2.74 (SD = 1.41)</td>
<td>2.88 (SD = 1.37)</td>
<td>2.85 (SD = 1.37)</td>
<td>12</td>
</tr>
<tr>
<td>Other world music such as African and Indian music</td>
<td>2.80 (SD = 1.53)</td>
<td>2.79 (SD = 1.41)</td>
<td>2.79 (SD = 1.40)</td>
<td>13</td>
</tr>
</tbody>
</table>

Note: *From 1 = 'highly disagree' to 5 = 'highly agree'*

The t-test analysis revealed that there was a statistically significant difference ($p = 0.000$) in learning Chinese popular music, contemporary Chinese music, English popular songs, Japanese popular songs, traditional Chinese music, Western classical music, Chinese folk songs, English folk songs, and Western musicals between the primary school and secondary school students. However, the t-test analysis showed that no significant difference was found in the rating of teaching creativity in all the music genres between instrument learners and non-instrument learners.

Discussion

Since the turn of the new century, creativity has been identified as a generic skill that should be nourished in school music education (see Ministry of Education, 2011, 2017). The primary purpose of this study was to identify specific aspects of school music education in the cultivation of creativity among school students in Changsha. This study was subject to limitations regarding the potential generalisability of the findings on the students’ (particularly the small number of participating primary school students) perceptions of creativity in school music education. However, the findings of this study revealed that there are fundamental issues in evaluating creativity in school music education in response to the role of the music subject and the music teachers, as well as the incorporation of creativity into music genres and music activities to be delivered in the school curriculum. Based on the three
research questions and the data drawn from the survey questionnaires, this section will address three main issues for discussion: (1) the students’ perspectives on the development of creativity in relation to school education and school music teachers; (2) the provision of musical creativity in multicultural music education; and (3) the incorporation of creativity into both formal and extracurricular music activities.

First, to a larger extent, the students in this study maintained that the role of creativity was important in school education and in school music education. The students’ overall self-evaluation of their creativity (M = 3.75, SD = 1.09) assumed that such potential provided for the development of their creativity in school education (M = 4.13, SD = 0.99) and in school music education (M = 4.06, SD = 1.04). Most of the students deemed that the most important constituent of the values of creativity education was education for a creative mind for the future. The data from this study implied that the values of intrinsic motivation for creativity in education played an important role in enriching the students’ creativity.

Through cross-tabulation calculation, the findings showed that 501 (25.6%) and 847 (34.3%) students, as well as 509 (26.0%) and 841 (43.0%) students, assessed themselves as ‘agreed’ and ‘highly agreed’ in maintaining the importance of creativity education in school education as well as in school music education, respectively. Though there was no difference found between instrument and non-instrument learners, the one-way ANOVA was found to be statistically significant between the primary and secondary school students in respect to their self-evaluation of their creative potential and the importance of creativity in school education and in school music education. The right mix of creativity in the school curriculum will help students to increase their propensity to innovate musically, personally, and socially (Frith, 2012; Robinson, 1982, 1998, 2015; Vidergor, 2018).

Generally, the students viewed visual arts, technology, and music they enjoyed as creative in this study (see Table 1). In recent years, STEAM (i.e., science, technology, engineering, arts and mathematics) has resulted in an educational approach that has challenged the artificial detachment of subjects that schools traditionally teach (de Vries, 2012; Harris & de Bruin, 2017). As STEAM gains momentum, connecting STEAM and the arts (including music) has been an increasingly popular method of teaching creativity. Questions of how we can use creativity in STEAM education, such as science, technology, visual arts, music, and mathematics, to inspire and support students’ creativity, while collaborating on the application of visual and spatial arts and music to reveal science, technology, and culture in distinct ways that are complementary to our traditional ways of understanding science and arts education to help students solve their daily life problems, remain (Stricker, 2008).

Clearly, music teachers play an instrumental role in fostering, in themselves and in their students, skills and dispositions to become creative learners (Burnard, 2012; Hartley & Plucker, 2014). Although there may be an underestimated relationship between creativity, the environment, and the music teachers in this study, researchers have advocated that the environment may impact creative thinking and learning and that teachers should consider the
spaces and places for students to be creative by supporting environments favourable to individual creative processes (Burnard 2012; He et al., 2020; Kladder & Lee, 2019).

Music teachers are regarded as an important element of creativity because they make learning more interesting and interactive (Burnard, 2012). There are questions of whether music teachers and teacher education programmes can cultivate teachers’ abilities to develop their educational creativity when designing and delivering curricular instruction through formal and informal curriculums (Abrama & Reynolds, 2015; Kladder & Lee, 2019; Odena & Welch, 2007, 2012). It was observed that the primary school students’ had slightly higher means for nearly all subject areas (except for science) in this study (see Table 1). Questions may also be raised of how to maintain the interest and the innovation of students in creativity when they reach higher forms in education.

Second, the Chinese students had a stake in musical preferences for Chinese popular music, contemporary Chinese music, English popular songs, and rap, while Western musicals, blues and jazz, and other world music were not their greatest interest in creativity education (see Table 5). Many primary and secondary school students in this study maintained that music was a means to human culture, and they should learn about diverse music cultures (M = 4.04, SD = 1.06) (from 1 = ‘highly disagree’ to 5 = ‘highly agree’). Compared with the secondary school students, the primary school students had greater preferences for contemporary Chinese music, traditional Chinese music, and Chinese folk songs (see Table 5). Their preferences for popular music from China were mostly formed by peers, the Internet, and mass media, and their preferences for contemporary Chinese music, traditional Chinese music, and Chinese folk songs were mostly formed by education from music teachers, parents, popular music idols, and mass media, which corresponded with the values within specific sociocultural contexts.

The students in the senior grades seemed to have less preferences for different music types, including Western classical and popular music styles. In presenting culturally diverse music education in creativity education, students should be motivated and supported in experiencing music in new ways to awaken their imaginations and creativity to new potentials and new communications (Ministry of Education 2011, 2017; also see Burnard, 2012; Randles & Webster, 2012; Rinsema, 2017, 2021). As shown from the Changsha sample, the application of learning popular music and/or diverse music styles can enhance and enrich students’ creativity. This raises the question of what roles music teachers play in promoting a type of popular music in creativity education that connects the in-school and out-of-school environments. Teachers may acknowledge cultural and social processes in being more supportive of an integrative framework for creativity education, with the introduction of music not limited to popular music but also other diverse types of music as their classroom activities evolve (Burnard, 2007; Cook, 2018; Feinberg, 1973; Ho & Law, 2009). At the same time, the upshot of the contests over the values of teaching popular, classical, contemporary, and folk music remains to be seen in China’s music education and will certainly depend on the decision-making of music teachers in the growth of creativity education. Also addressed was the changing contexts of school music education and
creativity, teacher education (including pre-service and in-service), and the self-consciousness of teachers, showing how they maintain relationships with their students’ preferred music styles in creativity education, as well as the support given from school and educational authorities and the teaching profession (Huang & Szente, 2014; Lockette, 2012; Wei, 2020; Xiao, 2019).

Third, this study attempted to investigate music instruction using related creative activities in the development of music-making in the curriculum. Music listening and singing, as reflected in this study (see Table 3), were found to be significant to many Chinese students, and their mean of liking music was 4.01 (SD = 1.02). Changsha has well-received popular music singing contests (Huang, 2014; Nauta, 2021), and this study demonstrated that the students generally preferred to learn music appreciation for creativity education in classroom music lessons (see Table 4), as well as popular music classes in extracurricular activities (see Table 4). With an understanding of the importance of music teachers related to creativity development in school students, questions are also posed on how we can provide rich opportunities for students to engage in music activities both inside and outside the school environment. When the students were asked about their attitudes towards the incorporation of creativity in classroom music lessons, Chinese popular music was ranked as the most preferred music genre (see Table 5).

Along with many other factors, such as the expansion of popular culture and the popular music industry, the popularity of the Internet and the rapid development of popular culture fandom have given rise to a growing body of fan communities among young people in Chinese cities like Changsha. The massive production of popular music entertainment programmes, such as the talent show Super Girl Voice, has cultivated many young people (including school students) and has significantly boosted the proliferation of popular music among school students in Changsha. Though music teachers were a very influential source of creativity, the distinctive source of students’ creativity education was also shared among different subject teachers, the Internet, mass media, and even popular musical idols (see Table 2).

This study, according to the students’ findings, also gave thought to what kinds of creative activities or elements motivate teachers to adopt music technology and its applications in students’ music listening, composition, and other related activities as a more comprehensive set of musical activities (see Table 4). Considering this, the cultivation of creativity with technology has the capability to offer and to motivate students’ unique opportunities to practice music activities in classroom music lessons (Crow, 2006; Kladder, 2016; Stricker, 2008). Though new music technology may not provide all the answers to the problems constituted by fostering creativity in classroom music lessons, it may take ‘teachers tantalisingly close to the musical language of their pupils’ words’ (Crow, 2006, p. 128).

To challenge this issue, Rinsema (2017, 2021) remarked on the importance of listening to an ecological panorama of musical creativity in the integration of improvisation, digital composition, and production (also see Burnard, 2012). This is also relevant in teaching
contents, where the challenges music teachers face in the needs and capabilities of students vary by grade level (particularly the differences observed between the primary and secondary school sectors in this study) (see Kiehn, 2003), in respect to the integration of creativity in delivering the activities of listening, performing, and composing (with and without modern technology).

Conclusion

Though this study was a small school-based study in Changsha, it is a preliminary step in the examination of students’ perceptions of creativity and music education and the extent to which creativity is significant in learning music activities and music types in a culturally diverse community. Though the influences and values of creativity in education and music education were shared by the primary and secondary school students, differences in their conceptions of creativity in music education were also noted in respect to preferred music activities and music genres. Creativity education is not simply a matter of ‘letting go’. It is sometimes assumed that creativity only emerges with support from schools and music teachers, as well as support from extended curricula. Schools and music teachers have raised the priority they have given to creativity education and music education in promoting the creative development of students and encouraging an ethos in which cultural diversity and diverse music participation are valued and supported. Perhaps, the new technology for music learning and creativity development may supply some answers to how best to foster creativity in the classroom.

Conflict of interest

The author reports no conflict of interest.

Acknowledgements

The author wishes to acknowledge the generous support of the Hong Kong Research Grants Council for funding this project (HKBU 12608618). The author acknowledge the help and support of the school heads, teachers, and student participants in the research study from which this paper was derived.

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Paper Received August 29, 2021; Accepted November 1, 2021; Published May 2, 2022