Music to My Peers: The Knowledge and Skills Developed When Students and Teachers Co-Create Music with Composers

Tessandra Wendzich
PhD Student
Faculty of Education, University of Ottawa
145 Jean-Jacques Lussier, Ottawa, Ontario
Canada

Bernard W. Andrews
Professor
Faculty of Education, University of Ottawa
145 Jean-Jacques Lussier, Ottawa, Ontario
Canada

Abstract

Music of modern professional composers is often inaccessible to students. Composers, teachers and students collaborated in a study addressing the research question: What musical knowledge and skills are developed when students and teachers co-create music with composers in schools? Data was collected through learning reports which was then interpreted using a pragmatic framework. The students gained knowledge of the creative compositional process and consequently developed communicative, listening, sight reading and performance skills. Moreover, their understanding of musical terminology, concepts and elements improved. The teachers and composers also expanded their understanding of the creative compositional process and realized the benefits associated with listening to students play. The findings will be of potential interest to music teachers, composers, post-secondary music educators, and the few remaining Canadian music publishers.

Keywords: educational music, music composition, music creativity

Exposition

Introduction

The Ottawa-Carleton District School Board (OCDSB) provided funds to commission eighteen new wind pieces in a SSHRC-funded project entitled Making Music: Composing *with* Young Musicians. In this project the researchers undertook an analysis of composer-teacher-student collaboration involving the implementation of musical skills and knowledge with government-mandated music curriculum requirements. The composers contributed their creative and technical expertise; teachers ensured that music curricular outcomes were met during this music developmental process; and student musicians engaged in creating and playing a composition. Data was collected over a period of three years through teacher questionnaires, learning reports and focus groups. The purpose of the study was to obtain an in-depth understanding of the knowledge and skills developed when teachers, composers and students collaborate in producing a composition by analyzing the learning reports completed by the teachers in the project.

Educational Music: Knowledge and Skills

Contemporary Canadian music is uncommonly performed and studied in school music programs (Bartel, Dolloff, & Shand, 1999; Shand & Bartel, 1998; Varahidis, 2012) and post-secondary institutions (Andrews & Carruthers, 2004; Carruthers, 2000). This is primarily because the music of modern professional composers is often inaccessible to students (Andrews, 2004; Bowden, 2010).

One of the many reasons composers refrain from writing educational music is their lack of training in educational music composition (Hatrik, 2002; Colgrass, 2004; Terauds, 2011). As Hatrik notes, "[m]any professional composers who write music in the Western tradition do not possess the know-how to compose musical language that is appropriate to young people." Educational music is often viewed as being of poor quality; consequently, post-secondary music educators focus the teaching of music composition on professional level repertoire (Ross, 1995; Colgrass, 2004).

Moreover, teaching strategies and parameters for writing educational music are virtually non-existent (Swanwick, 1999; Cox and Stevens, 2010; Andrews, 2012). There is, however, some educational music that is easily playable by school bands. Much of it represents easy arrangements of American film music and television shows (Andrews, 2009). According to Gershman (2007) and Campouse (2004, 2007), much of this music's quality is poor because it is formulaic and generic. Not all music deemed "educational" actually fosters learning.

Quality educational music, however, can be produced when students are provided with appropriate compositional parameters, materials and notational strategies (Hickey, 2001; McCord, 2004; Webster, 2011). This type of music can also be created when composers, teachers and students communicate in a school music setting (Andrews, 2013; Duncan & Andrews, 2015; Andrews & Giesbrecht, 2013; Wendzich & Andrews, 2018). Composers have learned that it is helpful to utilize graphic notation as well as web-based notation software when writing music for young musicians (Mantie, 2013; Colgrass, 2013; Stringham, 2013). They have also learned the importance of communicating and composing technically appropriate works in order to write music for young musicians (Duncan & Andrews, 2015; Wendzich & Andrews, 2018). Through interactions with teachers and their students, composers can ascertain that which is enjoyable and challenging for young musicians, and they can acquire an understanding of students' technical capabilities. Moreover, the use of such compositional tools as The Music Complexity Chart (MC²) (Andrews, 2011), have helped them create appropriate educational music by clearly outlining the levels of difficulty of the key elements of music composition (Wendzich & Andrews, 2018).

Other studies indicate the benefits associated when artists, teachers and students communicate in artistic projects: "[Students] learned to pay attention to their inner thoughts…and refined their work through critiquing" (Andrews, 2016). Through communication students develop decision-making, visualization, listening and writing skills. They are also able to clarify artistic concepts and learn ways to express their ideas (Andrews, 2016). Through communication with artists, students and teachers gain knowledge and skills of the creative process (Upitis, Smithrim & Soren, 1999; Carlisle, 2011). Some of these skills include exploration, performance and sharing (Freed-Garrod, 1999; Hargreaves, Miell, & MacDonald, 2004; Andrews & Giesbrecht, 2014). Moreover, teachers learn how the arts can be used to integrate other subjects across the curriculum (Andrews, 2016).

When students engage in music composition, they also develop the ability to improvise through the exploratory process of creation. In addition, their fundamental performance skills including intonation, tone, dynamics, rhythm, articulation and tempo, are enhanced. By providing opportunities for improvisation, students begin listening to their own musical output and are not distracted by decoding notation (Thornton, 2013). Through recording, their listening skills improve, and they learn how to assess the accuracy of their performance (Davis, 2013). A composer or teacher can ignite students' imaginations through narrative prompts (such as movie scenes, a short story, or photographs), thus enabling the young musicians to begin a composition (Stauffer, 2013). Not only can teachers and composers use narrative prompts to inspire compositional creation but visual art as well (Riley, 2013).

Development

Research Process

The purpose of this study, entitled Making Music: Composing *with* Young Musicians, is to obtain an in-depth understanding of how composers can collaborate with teachers and their students to create educational music. The principal overriding question of the Making Music Project is "How can co-creation of new music by professional composers and young musicians promote musical development? The research focuses on the four dimensions of creativity: examination of *environmental factors* that promote creativity; investigations of the *creative process*; evaluations of *creative products*; and assessments of *creative persons* (Woodman & Schoenfeldt, 1989; Amabile & Tighe, 1993).

More specifically for music composition, these dimensions have been identified as the *pre-requisites* for composing (training, emotions, context), *person* (characteristics, pre-dispositions, motivation), compositional *process* (strategies, techniques, sequencing), and musical *piece* (features, style, impact) (Andrews, 2004a, b). This study employs a multi-dimensional approach by nesting the secondary questions within the four dimensions of musical composition and by adopting different research protocols to answer these questions: *pre-requisites:* How can musical ideas be conceptualized and developed in collaboration with students? (composer record); ii) *process:* What musical knowledge and skills are developed when students and teachers co-create music with composers in schools? (learning report); iii) *piece:* What aspects of the new compositions reflect the teachers' pedagogical input? (composition commentary); and *person:* What do students and teachers learn from collaboration with professional composers? (teacher questionnaire).

This paper will focus on the *creative process* using Integrated Inquiry (Andrews, 2017). This research method combines data from multiple quantitative and/or qualitative protocols, or from the same protocol employed in different time periods (Andrews, 2008). The latter approach was utilized in this study.

This paper focuses on the *creative process* of the Making Music Project. The guiding question for this component of the project is:

What musical knowledge and skills are developed when students and teachers co-create music with composers in schools?

Data was collected through learning reports which were then interpreted using a pragmatic framework. Eighteen teachers volunteered to participate in the Making Music Project by responding to a call for participation by the Arts Instructional Coach of the Ottawa-Carleton District School Board. These teachers (ten female and four male) collaborated with their corresponding composer to create new wind works for young musicians in school-based programs (Andrews, 2017). Teacher-student-composer collaboration occurred in grades six through twelve. The majority of these interactions occurred within secondary school classrooms (grades nine to twelve). When it came time to divulge their experiences, the teachers completed the learning report in one of the three time periods: the 2012-2013 school year; the 2013-2014 school year; or the 2014-2015 school year. The same protocol administered in different time periods assists the researcher to obtain multiple perspectives on the object of inquiry (Andrews, 2008).

Analysis

Upon reflection of this project, all teachers alluded to the extent to which students learned the creative compositional process. In so doing, their communicative, listening, sight reading and performance skills were enhanced. Most teachers said that students communicated their musical ideas to peers and the composer. When developing musical ideas, students "experiment[ed] and improvis[ed] on their instruments to create short melodies and rhythmic passages." Once they created a melody, they engaged in "small group work," sharing ideas, as well as playing and editing musical themes. During each classroom visit, the composer provided continuous input to groups and individual students. In most cases, students also sent their compositions to a composer and he/she would perfect their work or ensure rhythms were precise and melodies fit into chord progressions. When students did not understand a concept they would ask questions, thus developing their oral communication skills: "[Students would] ask literate questions of the composer regarding interpretation of a particular phrase." They also developed musical communication skills by attempting "to interpret accurately the terms, signs and markings on the music." Composers also helped revise the students' skill levels to match their musical abilities by discussing areas of strength within the band. Due to the composer's input and students' musical experimentations, students developed creative thinking, "critical thinking skills…[and] musical analysis skills."

The majority of the teachers expressed that through this communicative process, students' listening skills were enhanced, as one duly noted, "[b]asic ear training was key during this class." While listening to the composer's instructions and their peers improvising on instruments, students also learned about musical vocabulary and harmony. Furthermore, when learning several new non-instrumental sounds, they developed an understanding of "how [these sounds] are used in establishing a setting in a programmatic composition." In order to improve their understanding of compositions and develop listening skills, students can partake/engage in "listening examples and patient questioning techniques…which leaves adequate time for students to formulate responses and not simply await an answer from the teacher to questions posed by the teacher."

Some teachers even said that during this project, students were encouraged to sight read as this skill is necessary when creating and playing a work. These young musicians were also "exposed to thinking about music in terms of memory and asked to use a variety of musical terms to support their ideas."

Students' understanding of musical terminology, concepts and elements improved since composers encouraged these musicians to use these skills in supporting their ideas and in helping create a compositional piece. Most teachers claimed that when listening to melodies, the students gained knowledge of articulation and the effects of dynamics. When creating melodies, the students also developed an understanding of the work's formal structure and "how [form] impacts on the melody and themes in the music." Moreover, the musicians learned to apply "markings for dynamics, phrasing [and] articulation while playing." Many teachers also mentioned how students' understanding of specific keys and scales improved.

In one instance students "developed knowledge of…B-flat, E-flat, F Concert." Most teachers said that students' understanding and skills pertaining to rhythm were enhanced as students precisely executed "rhythmic patterns" and "rhythmic values." One teacher even explicitly mentioned the "use of "16th notes and 16th rests, and 8th note pickups" in her classroom. When examining the concept of rhythm, some teachers realized that students became more aware of tempo and the effects thereof. They even learned how to be "wary of time changes and tempo change."

Most teachers mentioned students gaining knowledge of instrumental range when trying to balance the band. Through discussions and having the students play for the composer, he or she was able to discern students' instrumental abilities. Thereafter, he or she was able to "discuss [with the teacher and students] instrument ranges…appropriate to the current and predicted performance levels of the ensemble." Through this pedagogical process, students began understanding the vitality of instrumentation and balancing parts in a full band composition. If the band is not balanced then the composition will not suffice. Thus, it is necessary that students "overcome [instrumental range] through practice."

According to some teachers, students' sight reading skills developed during this project. One teacher explicitly mentioned that upon reviewing the second compositional draft, students had to rely on their sight reading skills: "[We] were sight reading through this one because there were a lot of changes from the last one." By the fourth visit from the composer, another teacher had the students practice their sight reading while, during the second composer visit, a different teacher ensured her students sight read.

Not only did students practice sight reading, but their musical performance skills. Students often performed for the composer so that the level of the band could be determined: "After approximately 15-20 mins [the composer] asked to hear the group perform to 'get a sense of their performance level.'" Most of the time, the composer would provide rehearsal and/or performance suggestions to the group. In the latter stages of the Making Music Project, many teachers noted the frequency students practiced their performance skills. The composer reflected and discussed areas for improvement and focused on performance techniques such as balance. Students also learned about performance protocols and rehearsed prior to playing at one of the schools' concerts. In preparation for a concert, students often engaged in a "dress rehearsal" wherein they, the teacher and composer, not only reviewed performance protocols, but reassessed balance, distribution and areas that could be emphasized. One teacher even said that students learned to "think on their feet" and apply "balance and blend to different [performance] locations." One such location was the school's auditorium.

It has become apparent that composers and students were perpetually communicating throughout the Making Music Project. Consequently, students' communicative, listening, sight reading, and performance skills were developed. Moreover, their understanding of musical terms, concepts and elements, improved. Not only did students feel successful, they felt valued and became invested in the compositional piece.

Students, however, were not the only ones to develop knowledge and skills during this project. Most teachers claimed that composers and teachers alike broadened their understanding of the creative compositional process. From a pedagogical standpoint, it is effective to begin writing the initial compositional examples in unison. When in unison, "[a]ll the students play the melody (including the basses) and will be able to recognize it in the completed piece," a teacher noted. Moreover, the creative process has taught composers and teachers to respect an ensemble's limitations. Teachers have also realized to respect and be firm with colleagues and composers about the students' needs. If a musical section is too challenging for the students, then it must be simplified.

Therefore, according to many teachers and composers, "[a] piece should be challenging for all, but possible for new players to succeed." Furthermore, teachers and composers learned to "balanc[e] the creative side of music with the formal, skill-related side [and] encourag[e] students to connect emotional concepts with elements of music."

Throughout this creative musical process, most teachers and composers realized the benefits of listening to their students play. By conversing and hearing the young musicians, the music instructors gained knowledge of the students' playing abilities (strengths and weaknesses), as well as their likes and dislikes. According to most teachers, "[the] initial visit was for the composer to hear the student musicians play in order to gauge their performance level…strengths…[and] what exactly they liked." In most cases, there was a wide range of playing abilities within each ensemble, which resulted in the composer accommodating beginner musicians and advanced ones.

By listening to students, composers and teachers learned how to accommodate them: "[A] piece should be challenging for all, but possible for new players to succeed." It is often difficult to create a balance between that which is familiar and challenging; however, according to one teacher, even if "the range for some instruments [is] challenging [it is] workable with extra practice." Student practice is not the only element that helps create a balanced work; if teachers and composers "[keep] expectations high" then they will likely succeed in accommodating all musicians involved. Moreover, if a teacher and composer are aware of the stronger and weaker players, cues can be written for instrumental coverage. It is also interesting to note that a few teachers explicitly said the composer listened and then led the music sessions with some assistance or interference from the teacher.

Although listening to musicians helps instructors determine students' instrumental abilities, there is always room for improvement, as one teacher claimed, "[i]t is good to have the teacher conduct so more focused composer listening and score revision can happen." Overall, the musical process was successful; every teacher expressed the extent to which this interactive, creative compositional process benefited all involved – but especially the students – as one teacher proclaimed, "creativity was promoted… students were given a great deal of freedom to create with any offering tried out aurally…so that it became safe to bring ideas forward when, initially, students were apprehensive."

Recapitulation

Discussion

The Making Music Project enabled students and composers to create a compositional work. In order to be successful in this endeavour, everyone involved (including teachers) had to communicate on numerous levels: musical, verbal and textual. The project was designed this way for multiple reasons. First, the most successful learning atmospheres actively and kinaesthetically engage students in learning (Meiners, Schiller & Orchard, 2004; Smithrim & Upitis, 2005). Second, communication with artists is essential for the success of an art-related project within a classroom setting (Andrews, 2016). Third, students within these creative learning environments must have sufficient time and space (Wilkinson, 2000). Last, when teachers, composers and students communicate, students' listening and writing skills can be enhanced, as well as the quality of composers' repertoire for young musicians (Duncan & Andrews, 2015; Andrews, 2016; Wendzich & Andrews, 2018). These reasons depict the unique nature of arts education (Burton, Horowitz & Abeles, 1999).

Most teachers claimed that students' communication skills enhanced. Consequently, their understanding of musical themes, ideas and terminology, as well as their instrumental abilities, developed. According to many teachers, this ongoing communication enabled the composer to discern the students' musical strengths and weaknesses: this is consistent with findings of Duncan and Andrews (2015), as well as Wendzich and Andrews (2018). Some teachers also expressed how 'group ownership' of an artistic piece helped encourage student engagement, which Andrews (2016) reveals in a study entitled *Working together: A case study of a national arts education partnership.* Working in teams, where students can share art-related ideas, is also consistent with Andrews (2016). Moreover, a communicative, nonthreatening forum (small groups or entire class with teacher and composer) enabled students to freely articulate their ideas, discuss feelings and ask questions without fear of reprisals (also outlined in Andrews, 2016).

When communicating with the musical instructors, most teachers expressed the extent to which students began understanding the creative compositional process. This process was less linear and more cyclical or non-sequential (Emmons, 1998; Berkley, 2001) as many students engaged in formation, preservation and revision as its stages. Consequently, they developed skills in brainstorming, writing, rewriting, brainstorming again and tweaking musical ideas with the commissioned composer, until a final product was produced. They also learned about performance-related strategies which enhanced their performance skills (Freed-Garrod, 1999; Hargreaves, Miell, & MacDonald, 2004; Andrews & Giesbrecht, 2014). Music composition did not occur in progressive stages as some have noted (Wallas, 1926; Bennett, 1976), but was more fluent (Katz & Gardner, 2012) which is similar to Hsieh's (2012) 'Geneplore model' of generative and exploratory creative functioning.

During this creative process, many teachers said that students' sight reading and listening skills were enhanced. In order to create and play a work, it is necessary for students to sight read (Wendzich & Andrews, 2018). Students also took note of how their ideas were instrumentally played and often helped the composer revise musical notes, keys, rhythm, dynamics, tempo and range, based on what was heard. This finding is consistent with research by Katz and Gardner (2012) that hearing an initial piece helps one shape and reshape the material.

Moreover, according to studies related to arts-learning (Andrews, 2016), student-engagement helps develop their listening skills.

During the initial stages of the creative compositional process, some teachers expressed students experimenting and improvising on their instruments to create short melodies and rhythmic passages. Experimentation and improvisation are key components of Katz's and Gardner's (2012) 'Within-Domain' compositional approach where composers rely on kinesthetic memory or their ear in creating a translucent musical framework. This then aids in detailing a coherent musical piece. Improvisation is one of the many aspects of music creativity (Freund, 2011). When experimenting and creating, students also engaged in critical thinking and problem-solving (Teffinger, Selby, & Isaksen, 2008; Isaksen, Dorval, & Treffinger, 2011). During this process teachers claimed that students learned how music reflects emotions since this process involves cognition and emotions (Giesbrecht & Andrews, 2015).

Furthermore, many teachers expressed that students learned the structure and form of the work, as well as enhanced their understanding of musical concepts and elements during the compositional process. Comprehending structure, form, musical concepts and elements of music, are all necessary for writing and revising a compositional piece (Webster, 2011; Katz & Gardner, 2012; Giesbrecht & Andrews, 2015). Overall, students' approach to the compositional process was one of experimentation, as well as creating musical and conceptual notions which are then developed into thorough musical ideas – a consensus amongst music researchers (Giesbrecht and Andrews, 2015).

Musical knowledge and skills developed not only in students, but in teachers and composers. Most teachers claimed they gained insight into the creative compositional process. This insight pertained to: how to write a concert band piece; the benefits associated with communication and the process of creating; the need to respect ensemble limitations; and finally, the importance of balancing emotional, creative concepts with musical elements. Composers have similarly learned the aforementioned in the New Sounds of Learning Project (Duncan & Andrews, 2015; Wendzich & Andrews, 2018).

Most composers and teachers also realized the benefits associated with hearing the students play prior to writing a piece. By listening to them play, the musical instructors learned the importance of writing an enjoyable, balanced work – one that is both challenging and familiar. This finding is replicated in Duncan and Andrews (2015) and Wendzich and Andrews (2018). By hearing students play, composers were able to discern the students' instrumental strengths and weaknesses, as well as their likes and dislikes.

Through communication, teachers and composers ensured that such pedagogical aspects as knowing students' musical abilities and personal backgrounds, integrating independent and group work with ongoing composer input, and emphasizing creativity and not written theory, were also implemented. It is interesting to note, however, that through this creative compositional process, students "accidently" learned music theory. This is pedagogically beneficial since students are having fun while simultaneously learning that which is tedious and often boring – technical musical terminology and elements. These pedagogical aspects are consistent with studies by Duncan and Andrews (2015) as well as Wendzich and Andrews (2018).

Conclusion

This study focussed on the research question: What musical knowledge and skills are developed when students and teachers co-create music with composers in schools? Within the Making Music Project, students, teachers and composers broadened their understanding of the creative compositional process. Consequently, students developed communicative, listening, sight reading and performance skills, while the musical instructors realized the importance of listening to students play. Furthermore, the students' understanding of musical terminology, concepts and elements improved.

In order to help students understand the creative compositional process more thoroughly teachers provided the composers with some pedagogical advice. Some suggestions to the composers focus on presenting more than one musical element and ensuring that musical examples are written in unison. Further, composers should help students develop numerous compositions, but also allow them to independently write melodies. Having a faster tempo near the beginning of a piece is also beneficial as it helps students control their breathing. There was also mention of composers providing some guidelines concerning pitch ranges for the instruments.

Furthermore, composers and teachers should develop their conducting skills in a classroom setting, as one teacher noted, "[c]omposers would benefit from conducting experience…it is [also] good to have the teacher conduct so more focused composer listening and score revision can happen." Future research on pedagogical strategies that promote musical development would reinforce the findings of Making Music: Composing *with* Young Musicians.

Acknowledgement

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