

**Creative Development in Large Ensemble School Music Courses for
Students in Grades 9-12: An Action Research Study**

Garth G. Rempel

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Table of Contents

List of Tables.....	vii
Abstract.....	viii
Acknowledgements.....	x
Chapter 1: Introduction and Overview	1
Focus of the Study	1
Significance of the Topic	2
Personal Connection to the Topic	3
Purpose and Objectives of the Study	5
Research Questions	6
Definition of Terms	6
Structure of Thesis	8
Chapter 2: Literature Review.....	10
A Rationale for Creative Development in K-12 Education	10
Concepts and Theories of Creativity.....	12
Creating: An Essential Learning Area in K-12 Music Curricula	18
Music Learning Environments that Support Creative Development.....	26
Effective Pedagogies for Creative Development in 9-12 Music.....	31
Student Agency in Music Education.....	35
Assessing Creative Development Learning in 9-12 Music.....	39
Conclusion	43

Chapter 3: Methodology and Research Design	44
Purpose and Objectives of the Study	44
Research Questions	44
Justifying an Action Research Approach	45
Researcher's Positionality	47
Research Context	48
Research Design.....	50
Conditions for Creative Learning	51
The Teaching Innovation Process	53
Recruitment of Participants.....	56
Ethical Considerations	57
Consent Letters and Power-over Relationship.....	58
Social Justice, Equity, Diversity, and Inclusion in the Research Process	59
Use of Video Recording as a Data Source	60
Secondary Use of Data.....	62
Data Sources and Collection.....	63
Field Notes and Audio Recordings	64
Assessment of Student Work	64
Student Journals	66
Student Questionnaires	66

Data Analysis Procedures	66
Coding Framework Development.....	67
Coding Distinctions Across Data Sources	67
Theme Identification.....	68
Integration Within the Action Research Framework	68
Validity Criteria.....	69
Credibility	69
Transferability.....	70
Dependability	70
Confirmability.....	70
Strengths and Limitations of the Methodology	71
Conclusion	72
Chapter 4: Findings and Discussion	74
Coding of Data Sets	75
Reciprocal Growth in Creative Music Learning: Teacher Action Strategies and Student Agency within Open-Ended Pedagogy	82
Integrating Findings Across Research Questions	82
Theme 1: Empowering Student Voice and Creative Autonomy	84
Theme 2: Open-Ended Pedagogy Enables Deeper Engagement	105
Theme 3: Scaffolded Support and Technological Guidance Build Capacity.....	128

Synthesis of Findings.....	145
Chapter 5: Assessing Creative Engagement Using Signposts of Breadth, Depth, and Transformation.....	148
Assessment Profile – Student 3.....	150
Assessment Profile – Student 6.....	157
Assessment Profile – Student 9.....	166
Assessment Profile – Student 11.....	173
Synthesis Across Participant Assessment Profiles.....	180
Chapter 6: Summary, Conclusions, and Recommendations for Teachers and Researchers	184
Conclusions.....	184
Limitations of the Conclusions	187
Implications for Practice	188
Adopting Open-Ended Task Design with Scaffolds	188
Recasting the Role of the Ensemble Director	188
Supporting Diverse Tools and Musical Identities	189
Implementing BDT-Based Assessment.....	190
Integrating Creating Across All Wings of the Curriculum.....	191
Equity, Diversity, and Inclusion.....	191
Directions for Future Research	192
References.....	194
Appendix A: Informed Consent Letter and Form for Parents.....	213

Appendix B: Recruitment Script.....	219
Appendix C: Student Assent Form	223
Appendix D: Rubric for Assessing Creative Growth.....	224
Appendix E: Student Questionnaire.....	226

List of Tables

Table 1. <i>Data Collection Matrix</i>	633
Table 2. <i>Data Analysis Codes and Definitions for Student Journals</i>	766
Table 3. <i>Data Analysis Codes: Field Notes and Audio Transcripts</i>	777
Table 4. <i>Data Analysis Codes and Definitions for Student Questionnaires</i>	788
Table 5. <i>Grouping of Initial Codes to Form Themes</i>	799
Table 6. <i>Themes Addressing and Research Questions</i>	81

Abstract

Large ensemble secondary school music programs (e.g., concert band) have traditionally prioritized performance preparation and technical accuracy, often leaving limited space for students' creative development. Responding to Manitoba's Grades 9–12 Music Curriculum Framework—where *Creating* is positioned as an essential, integrated learning area alongside Making, Responding, and Connecting—this teacher action research study examined how creative music learning can be meaningfully enacted and assessed within a large ensemble context. Guided by pragmatism and a cyclical look–think–act action research approach, a five-month pedagogical innovation (September 2024–January 2025) was implemented in a culturally diverse Manitoba high school concert band program. Students engaged in open-ended creative music projects (e.g., original compositions, arrangements, soundtracks, or musical settings) with flexible criteria to accommodate varied musical backgrounds and tools, including digital notation and production technologies. Creative learning growth was assessed through Manitoba's process-oriented signposts of Breadth, Depth, and Transformation (BDT), emphasizing engagement in ideation, experimentation, revision, and sharing. Qualitative data from student journals, student questionnaires, teacher field notes, and audio transcripts were analyzed through iterative coding and thematic analysis. Findings indicate that: (a) empowering student voice and autonomy increased engagement, motivation, and ownership, (b) open-ended pedagogy supported deeper experimentation, reflection, and peer feedback, and (c) scaffolded support—particularly technological and logistical guidance—built students' capacity to persist through creative and technical challenges. Across the project, students reported growth in musical identity, confidence, expressive intent, and resilience, while the teacher's role shifted toward facilitator/co-learner, evidencing reciprocal growth. This study offers practical, equity-oriented

strategies for integrating and assessing creative work in Grades 9–12 large ensemble courses, including open task design with scaffolds, co-constructed assessment criteria, and BDT-aligned formative feedback practices.

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Chapter 1: Introduction and Overview

Throughout history and across different cultures, music has served as a unique means of expressing ideas and emotions, telling stories, and offering sonorous insights for listeners, performers, and music makers to better understand the world. To be able to make music, to use it as means of communicating that for which words alone are insufficient, is widely considered to be a unique human capacity. Music is the expressive art form that music educators are sharing with their students in K-12 teaching and learning contexts. In Manitoba, the provincially legislated curriculum for all grades identifies that music education from K-12 should include a balance of Making, Creating, Responding, and Connecting to music (Manitoba Education and Advanced Learning, 2015, 2021). It seems obvious to state that, with the exception of improvisation, music must be created before it may be performed, and so it stands to reason that teaching and learning music would demand opportunities for students' creative musical expression. Why, then, is creating through music not included as a significant portion of music education in many school settings? Regrettably, the literature indicates that opportunities for creative development in music education are widely under-represented, and in some cases actively and/or passively discouraged (Bolden, 2023; Laidlaw, 2017).

Focus of the Study

Any action in which a school music student simply does precisely what the teacher asks of them is arguably devoid of creativity. For creativity to be part of the process, the student must be able to generate ideas, make decisions, refine, and revise their work until they are satisfied (or not, as the case may be). Much of music education today, private, or classroom-based, still reflects a model in which the teacher makes decisions and gives directions, and the students do their best to follow the directions they are given. This model is especially true of large ensemble-

based music education programs such as concert band, jazz band, and choir. These programs typically follow a pattern in which the music teacher selects and directs the ensemble repertoire, and large-format performances such as festivals or concerts serve as primary focal points. The collaborative and community building benefits that emerge in steering large ensembles toward common performance goals are undeniable. However, music teachers in any musical setting in which creative development is downplayed or ignored outright are missing opportunities to engage students in the benefits of creative work, such as increased agency, problem-solving skills, and sense of musical identity (Bolden & DeLuca, 2022; DeNora, 2016; Hickey, 2012).

The Manitoba curriculum document for Grades 9-12 Music (Manitoba Education and Advanced Learning, 2015) identifies four essential learning areas: Making, Creating, Responding, and Connecting, designed to be addressed as an ongoing, dynamic, and fluid interaction between each area. In my own practice working with large ensembles, I am diligent in providing meaningful and impacting music learning experiences relating to the Making, Connecting, and Responding areas. I work collaboratively on repertoire and helping my students learn how to be effective when making and performing music in this setting. I am also very interested in how I can better attend to the Creating area of the curriculum. As such, the focus of this study was to examine how creative music learning experiences can be integrated into classes that are organized in a large ensemble format.

Significance of the Topic

The music education system in Canada today, like much of the rest of the Western world, found its origins in the Conservatory system that emerged in Western Europe in the 19th century (Kratus, 2014). Born from the need for musicians to fill the growing number of orchestras operating in the wake of the Industrial Revolution, the Conservatory system was developed to

train musicians to work. The development of this system and its ties to current music education practices are well documented (Mark, 2014). Generally speaking, the current music education system still tends to value performance excellence as the pinnacle of success. Critical perspectives in the literature call for a shift toward creative development and student agency in the pedagogy and methodology of music programs (Bolden, 2012, 2014, 2023; Kratus, 1990, 2014; Mark, 2014; Randles, 2014; Randles & Webster, 2020; Stringham, 2010; Webster, 2016). In this study, I addressed this shift in my own practice with the objective of being more balanced, attending to creating music as well as making, responding to, and connecting with it. The findings of this study have informed my instructional practice, and I offer them here to provide teaching pedagogies for other music educators working in similar school contexts who may wish to examine their own practice related to creating music with their 9-12 students. The findings of this study also have the potential to enhance, enrich, and contribute to student learning in rich and meaningful ways.

Personal Connection to the Topic

My own musical background is best described as, in a word, diverse. Primarily, I am trained as a guitarist, but my background includes much more than guitar lessons; piano and rudimentary theory beginning at age 5, private guitar lessons beginning at age 10, vocal experience in church, school, and personal ventures from age 10, school music experience including low brass instruments (tuba and euphonium) in concert band and guitar in jazz band, pit orchestras for amateur musical theatre productions, cover bands employed in the local club circuit, rock bands generating original music, Celtic folk bands, and more. Formally, I earned a Bachelor of Music (classical guitar) and a Bachelor of Education (Senior years stream; music and mathematics) from the University of Manitoba.

My interest in creative development in music programs stems in large part from the persistent lack of creative learning opportunities afforded to me throughout my education experiences, classroom and private alike. While I had many positive and impactful experiences with various music teachers in my youth, all of these were focused toward performing and technical skill development. None of the private teachers that I worked with on piano or guitar encouraged me to create anything in lessons or in personal practice, rather focusing on reproducing existing repertoire and developing technique. I was fortunate to work with talented and committed music educators in middle and high school who fostered positive and encouraging music communities that were engaging and welcoming. However, there was no significant emphasis on creative music learning in my middle and high school music courses, except for some opportunities to improvise in jazz band. Very little of the content in the courses of my undergraduate music program had anything to do with creative development. Similarly, my pre-teaching education undergraduate program, while full of thought-provoking content on educational philosophy and pedagogical considerations, contained no training on creative development or how to teach creative development in my music classroom.

My competencies in creating music were attained almost entirely through self-negotiated experiences outside of any formal instruction that I received. When I connected with my peers on our own time to study and learn about the music we selected, I was completely entranced. After some time immersed in this type of collaborative learning, we decided that we wanted to create music in this style, so we started to write songs and develop harmony. No one taught us how; we just figured it out. Someone would bring an idea and then the group would contribute more ideas and work to develop them. Admittedly, our early creations were not very good. However, with much reflection, revision, and practice over months and years, we improved steadily which was

evident in the growing sophistication and effectiveness of our original music. It is relevant to note that our self-imposed process of generating ideas and experimenting was born from a curiosity to create and discovered almost by accident and learned informally. Perhaps not surprisingly, I remember the process of creating music in this fashion to be rich and rewarding, although frustrating at times.

I can make a carefully generalized observation based on my musical experiences in educational and personal contexts that many, if not most, musicians trained in the Euro-classical tradition, while expressive and communicative, are not especially creative. My observation is confirmed in the literature by scholars such as Sovansky et al. (2016). Improvising, composing, and creating music live or in a digital environment remain elusive to many musicians because of extensive training in Euro-derived classical music practices. Most music instruction that I have received and observed involves teacher(s) telling the student(s) what to do, along with when, and how to do it. As such, my experience is that music students have little to no agency or choice of what to do next in their music-making experiences. Through the course of this teacher action research study, I have moved towards changing this pattern for my current and future school music students.

Purpose and Objectives of the Study

The primary purpose of this study was to actively examine, reflect upon, and improve my teaching practice related to the “creating” music component of the *Grades 9 to 12 Music: Manitoba Curriculum Framework* (2015). As an educator, I am constantly striving to expand my knowledge and skills so that I can provide meaningful and impactful experiences and opportunities for the students in my classroom. Perhaps more specifically, during this study I intentionally: (a) considered how creative learning experiences are incorporated in my

instructional practice; (b) expanded my current (and potentially future) students' capacity for creating musical works; and (c) explored possibilities for assessing creative work. I also provided my students with meaningful opportunities to generate creative work. Through this action research study, I have made my contribution to the music education research and professional communities, in response not only to the clearly demonstrated lack of creativity-building learning opportunities in past and present public school music programs but also to the clear mandate to foster learners' creative development as described in the current Manitoba curriculum.

Research Questions

The following research questions formed the foundation of this study:

1. How can I better enact the “Creating” essential learning component within the context of all four wings of the butterfly contained in the *Grades 9 to 12 Music: Manitoba Curriculum Framework* in the large ensemble-based music courses I instruct?
2. How can I assess (for/of/as) the “Creating” recursive learnings using the dimensions of breadth, depth, and transformation as outlined in Manitoba's conceptual framework for music learning growth?
3. What impact will my action strategies have on my grade 9-12 students' learning growth and agency related to creating music?

Definition of Terms

The following terms are defined for the purpose of clarifying the meanings for readers as they are used in the context of this study. These terms may be understood differently by others and/or in other contexts.

Creativity. The definition of creativity is a topic for much writing and discussion among academics. The literature review will reveal a myriad of theories and concepts relating to creativity. For this study, creativity will be considered as defined by curriculum writers in Manitoba (2015, 2021) and by Randles & Webster (2020). Manitoba curriculum writers refer to a definition of *everyday creativity* according to Ruth Richards (2010): “Expressions of originality and meaningfulness in creative product and process in the activities of everyday life, including work and leisure” (Manitoba Education and Advanced Learning, 2015, p. 73). Randles and Webster (2020) define creativity in music as

the divergent and convergent thought processes, enacted both in solo and in ensemble, which lead to musical products that are both novel and useful, within specific sociocultural contexts, manifested by way of specific modes of musicianship or combinations of modes that can include but are not limited to the following: improvisation, composition, performance, analysis, and listening. (p. 616)

Creative process. While there are several ways of defining the creative process, some of which are described in the literature review, this study defines the creative process according to the Geneplore model described by Finke et al. (1996). These scholars state that “the Geneplore model consists of two distinct processing components: a generative phase, followed by an exploratory phase” (Finke et al., 1996, p. 17). Essentially, a person generates ideas that promote discovery and then explores and constructs those ideas through experimentation. The cycle continues as the experimentation leads to other ideas which can lead to further discovery.

Creative product. “A creative product is different from existing ones on account of one or more features and adds exceptional value to human purposes” (Randles & Webster, 2020, p.

625). Taken in the context of music education, a creative musical product must also contain elements that can be understood as musical.

Creative thinking. “A dynamic process of alternation between convergent and divergent musical thinking, moving in stages over time, enabled by certain skills (both innate and learned), and by certain conditions, and resulting in a final product” (Webster, 1989, p. 66).

Student agency. The student’s sense that they can make choices, set goals, initiate and carry out ideas, and take responsibility for their own learning (Vaughn, 2021; Wiggins, 2015).

Student voice. The idea that students “can provide insight into what they are learning, how they are learning, and whether their learning environment supports their ideas and decisions” (Vaughn, 2021, p. 64).

Structure of Thesis

This thesis is comprised of six chapters. The current chapter identifies the focus of the study, the significance of the topic in relation to school music education, my personal connection to the topic, the purpose and objective of the study, the research questions which guide the study, and definitions of key terms. Chapter 2 contains a summary of the literature reviewed and the theoretical framework used for this study. Chapter 3 makes it clear that pragmatism is the theoretical framework for the methodology and describes how the study was conducted using an action research approach. Chapter 4 presents findings which resulted from data analysis and interpretation as they pertain to research questions 1 and 2. Chapter 5 presents assessment profiles of selected participants to address findings related to research question 2. Chapter 6 presents a summary of the study along with concluding statements and acknowledges the limitations of those conclusions. Additionally, Chapter 6 considers the implications of these findings for 9-12 large ensemble music programs and make recommendations for improving the

practice of creative music development with learners in these contexts. Suggestions for future research that flow naturally from this study are offered.

Chapter 2: Literature Review

The aim of this research project is to examine ways of increasing creative learning experiences in large ensemble settings in a high school music room. Prior to engaging in research in this area, it is necessary to discuss existing literature on creativity in areas that relate to the topic in general and to the specific context of music education. To this end, a comprehensive review of the literature has been conducted and will be presented using the following themes: a rationale for the inclusion of creative activity in educational settings, concepts and theories of creativity, creativity as an outcome in music education curricula, music learning environments that support creativity in music education, effective pedagogies for creative development, in music education, student agency in music education, and assessing creative development learning in gr. 9-12 music education.

A Rationale for Creative Development in K-12 Education

Creativity is important to humans in a global sense. It is associated with problem-solving, adaptability, self-expression, innovation and progress, emotional well-being, and critical thinking (Kozbelt, 2011; Vincent-Lancrin et al., 2019). It enriches our lives and helps us navigate challenges; from those minor or mundane challenges we encounter in our daily lives through to those major challenges which shape the future of humanity. Creativity is what allows the author to capture the imagination of the reader. It is creativity that artists in all arts disciplines employ to produce artworks that speak to their audience in ways that transcend literal understandings. It is creativity that allows humans to have new ideas that can be developed into different ways of knowing, doing, and interacting with others and the world we live in.

Creativity is a fundamental aspect of human expression and a crucial component of music education. Scholars have been researching and emphasizing the role of creativity in education for

promoting emotional expression, critical thinking, and problem-solving skills since the mid twentieth century. Guilford (1968) compiled two decades of research and writing into a book summarizing his efforts to understand the nature of creativity as it relates to intelligence and the educational implications of the relationship. Similarly, substantial research exists connecting creativity to the general field of education (Csikszentmihalyi, 1996; Csikszentmihalyi & Wolfe, 2014; Glück et al., 2002; Kelly & Leggo, 2008; Richards, 2010; Richards et al., 1988; Simonton, 2017; Torrance, 1995).

Recent scholarship in music education reinforces the position that creativity is not merely an enrichment outcome, but a foundational component of effective teaching and learning. Meng and Ariffin (2024), in a comprehensive literature review, identify creativity as a globally recognized 21st-century competency and emphasize its central role in supporting students' cognitive, emotional, and personal development through music education. Synthesizing research from general creativity studies and music-specific scholarship, they argue that creative engagement—particularly through composing, improvising, and exploratory musical thinking—enables learners to develop flexible thinking, problem-solving abilities, intrinsic motivation, and self-expression. Importantly, Meng and Ariffin highlight that creativity in music education is most powerfully fostered when learning experiences prioritize creative thinking processes rather than solely emphasizing performance outcomes or technical proficiency. Their review underscores the necessity of intentionally integrating creative development into music curricula as a means of cultivating adaptable, reflective, and engaged learners.

It is frequently postulated that creativity is an inherent part of all arts education. Regrettably, there is ample evidence that this is not the case, particularly regarding music education. Typical music programs in Canada and the United States today remain essentially

based on the conservatory system developed in western Europe during the nineteenth century and the ideals privileged by a colonialist approach to education (González Ben, 2023; Hess, 2021, 2023; Kratus, 2014). Music educators in North America are trained according to a model which is approaching 200 years old. According to Kratus (2014), the original purpose of the conservatory system was not to develop creativity, but rather to fill a need for rank-and-file musical talent to take on positions in a growing number of orchestras. Typical music programs in secondary schools today still operate with echoes of the conservatory system; a central tenant of music programs is to develop talented high school music students to fill positions in bands and orchestras and to supply students to university and college music faculties after graduation. This purpose is especially true of large ensemble performance-based music courses offered at the middle years (Grades 5-8) and senior years (Grades 9-12) levels such as concert band and jazz band. Hess (2021, 2023) and González Ben (2023) argue that this condition persists as a result of embedded colonialist influence, however well-intentioned. Consequently, despite mounting evidence that creativity is a critical component of education, many music programs do not address creativity to any meaningful extent, if at all (Giddings, 2023). Scholars have studied possible reasons why this situation might exist. The lack of attention given to creative activities in the music room may be attributed (but not limited) to implicit bias (Giddings, 2023), echoes of the embedded colonialist influence of Euro-centric music-making practices (González Ben, 2023; Hess, 2021, 2023), and instructional time constraints or systemic pressure to perform (Bolden, 2012; Williams, 2011).

Concepts and Theories of Creativity

There is a plethora of literature on creative theory. Many researchers, scientists, artists, and philosophers have studied, pondered, and discussed creativity, and written about it

extensively over time. According to Becker (2011) in the *Encyclopedia of Creativity*, the earliest evidence of creativity is found in myths and legends. Prior to the twentieth century, there was little experimental basis for conclusions regarding creativity, and the topic was most often associated with discussions relating to genius, art, philosophy, or intuition (Becker, 2011). While Meng and Ariffin (2024) foreground the educational importance of creativity in music learning contexts, recent theoretical work has further clarified the nature of creativity itself by distinguishing creative processes from creative products, sharpening how creativity may be conceptualized and assessed in educational research.

Virtually all research on the topic of creativity includes some definition of creativity (Kampylis & Valtanen, 2010). Hence, it is well documented that a single definition of creativity presents a unique challenge. According to Runco and Jaeger (2012), the standard definition states that creativity is bipartite: “Creativity requires both originality and effectiveness” (p. 92). Stein (1953) was the first scholar to use this standard definition: “the creative work is a novel work that is accepted as tenable or useful or satisfying by a group in some point in time” (p. 311). Other researchers agree that there is consensus among researchers that the definition of creativity includes products that are novel and useful in a social context (Dow, 2022). Despite Runco and Jaeger’s assertion that a standard definition of creativity does exist, others argue that the definition varies across disciplines and domains of learning. Indeed, there are so many definitions of the term creativity in the literature that Kampylis and Valtanen (2010) completed a study of the same to look for patterns, commonalities, and ambiguities amongst them. Clearly, the definition of creativity is not universal.

While the standard definition of creativity as novelty and usefulness has been highly influential for assessing creative products, recent scholarship has argued that such definitions are

insufficient for conceptualizing creativity as a *cognitive process*. Green et al. (2024) note that longstanding challenges in operationalizing creativity stem in part from an ongoing conflation between creativity as a product attribute (or “creative-ness”) and creativity as a process. They propose a process-based definition of creativity intended to specify the minimal necessary and sufficient conditions for creativity as it unfolds in thinking and learning. According to their framework, creativity is defined as *internally-directed attention constrained by a generative goal*—that is, cognitive activity in which attention is directed toward internal mental representations, guided by goal-related constraints, and oriented toward generating representations not already precisely held in memory. This process definition shifts emphasis away from externally judged outcomes and toward the internal operations through which creative thought occurs.

The beginnings of scientific interest in creativity as an area of research are often to attributed to Guilford’s address to the American Psychological Association simply titled *Creativity* (1950) in which he called out the scientific community for their lack of attention to the subject. Scholars such as Torrance (1959, 1962, 1966, 1974) began studying the implications of creativity in learning in the field of psychology shortly thereafter. Torrance is widely recognized as a pioneer and major contributor to research on measuring creativity in people, perhaps best known for developing the Torrance Tests of Creative Thinking. Such is the dissonance and debate around the topic of creativity that this prolific researcher still observed doubt, question, disregard, and ridicule after over 40 years of working and researching in the field (Torrance, 1995). Torrance accepted and built upon Rhodes’s theory (1961) which suggested that creativity must be considered in four categories named by the 4 P’s: the person (characteristics of the individual), the process (motivation, perception, learning, thinking, and communicating), the

press (relationship between the human being and their environment), and the creative product (ideas embodied in tangible form).

Since the mid-twentieth century, there has been much well-documented work on developing theories of creativity. Indeed, there are so many theories of creativity that it is necessary to categorize them to better understand how these theories may be useful in a research context. Kozbelt (2011) refers to an alternative framework for comparing the various theories of creativity which also uses alliteration like Rhodes's: process, product, person, place, persuasion, and potential. In a broad sense, Kozbelt (2011) states that theories focused on creative process are typically centered around mental strategies and stages of the creative process, while theories focused on creative product are typically focused on the generation of things which can be measured more objectively by counting or judging such as works of art, inventions, or publications. Notably, creative products say little specifically about their creators or the process by which they came to be. In contrast, they observe that theories concerning the creative person tend to focus on characteristics or traits of the individual which are associated with creativity, while other theories consider the place or location in which creativity occurs. Another set of theories views creativity as persuasion; the creative person changes the way others think. Lastly, theories of creativity which are concerned with a person's creative potential address the human capacity for creativity and are frequently considered in educational research (Kozbelt, 2011). Beghetto and Kaufman (2022), on the other hand, categorize theories of creativity according to who is creative, how we are creative, why we are creative, and what is creative.

Theories concerned with who is creative attempt to make useful distinctions between types of creative people based on the types of creative products they are generating. For example, it is often theorized that creative people could be divided into two categories; everyday

(little-c creativity) which refers to regular people finding clever ways of solving problems in their daily lives, and legendary (Big-C creativity) which is reserved for those rare individuals who introduce a new idea or product which forever changes a domain or field (Merriotsy, 2013; Richards et al., 1988; Simonton, 1994). An example of little-c creativity could be a homeowner devising a better way of organizing the contents of the kitchen to free up space for a new appliance. An example of Big-C creativity could be the invention of a product that changes the world such as Frederick Bantings discovery that insulin could be used to treat diabetes. Further, the Four-C model (Kaufman & Beghetto, 2009) suggests that while creative people are often divided into two categories, little-c creativity, and Big-C creativity, it could also be useful to consider two additional categories to capture those who do not fit the former. *Mini-c* creativity is subjective and relates to the learning process, serving as a starting point for all higher forms of creativity. *Pro-c* creativity is derived from years of intense practice and experience in a particular domain.

Theories concerned with how we are creative attempt to “clarify the factors and processes that lead to creative outcomes”. Indeed, one of the oldest areas of research on creativity has to do with creative process (Beghetto & Kaufman, 2022). Wallas (1926) described four stages of the creative process as preparation, incubation, illumination, and verification. Botella and Lubart (2015) break the process down and examine samples of the creative process in art, design, and science. The Geneplore model describes two phases which are generation and exploration, and how a creative person cycles between these phases as they work toward their goal (Finke et al., 1996).

Theories concerned with why we are creative address the reasons that people undertake creative activities. One example of this type of theory is the 4-G theory developed by Forgeard

and Mecklenburg (2013) who argued that *growth*, *gain*, *guidance*, and *giving* each represent a reason for being creative. Another example is Beghetto's (2016) model of creative learning which provides a way of thinking about the interdependent relationship between creativity and learning.

Theories which address the question of what is creative consider how creativity is viewed across different domains. Perhaps most frequently cited among this set of theories would be Csikzentmihalyi's (1996) systems theory which examines how creative actions and activities can be expressed as an interaction between domain (area of study), field (*gatekeepers* or experts who decides what is creative in a particular domain), and person (the individual who is creating).

Importantly, Green et al. (2024) argue that process definitions and process models serve different but complementary roles in creativity theory. Whereas models presented above articulate how creative cognition unfolds across stages or mechanisms, these models do not establish criteria for what constitutes creativity itself. The process definition offered by Green et al. instead provides a conceptual foundation against which creative processes may be recognized and assessed, regardless of whether a creative product ultimately emerges. This distinction is particularly relevant in educational contexts, where creative learning may be evident in ideation, experimentation, and revision even when externally judged novelty or usefulness is limited.

In the context of music education, the definition of creativity that most frequently aligns with the definition of little-c or everyday creativity put into a musical context is the ability to generate original, useful, and meaningful musical ideas. Randles and Webster (2020) define creativity in music as:

the divergent and convergent thought processes, enacted both in solo and in ensemble, which lead to musical products that are both novel and useful, within specific sociocultural contexts, manifested by way of specific modes of musicianship or combinations of modes that can include but are not limited to the following: improvisation, composition, performance, analysis, and listening. (p. 616)

There can be little doubt that creative activities encourage students to explore diverse genres, experiment with novel approaches, and develop a personal musical identity.

Creating: An Essential Learning Area in K-12 Music Curricula

For more than 30 years, educators and researchers have been contributing to the literature regarding creativity as a critical part of music education from K-12. Kratus (1990) and others were calling for adaptations to music curricula to include creativity in the late twentieth century. Works such as Sullivan and Willingham's (2002) *Creativity and Music Education* compile the work of international authors addressing the need to reflect on and adapt practices for music education to include more creative activities. On further exploration, the literature yields research exploring dimensions of creativity in music including compositional creativity (Koops, 2013; Morin, 2002) and improvisational creativity (Guderian, 2014). These dimensions often intersect and are combined in a holistic understanding of creative musical experiences (Burnard, 2012; Burnard & Murphy, 2017; Laidlaw, 2017; Odena, 2016).

Continuing accumulation of research into the effectiveness and intersection of creativity with learning is evident in the dialogue within the music education community and consequently in the learning outcomes identified in most recent revised editions of music curricula. Examination of a broad survey of music curricula from across Canada yields that learning outcomes specifically involving creative experiences and development are found in many

curriculum documents (Alberta Ministry of Education, 1991; British Columbia Ministry of Education, 2018; Manitoba Education and Advanced Learning, 2015; Newfoundland and Labrador Education and Early Childhood Development, 2018, 2019; Nova Scotia Department of Education and Early Childhood Development, 2021; Ontario Ministry of Education, 2010b, 2010a; Québec Ministry of Education, n.d., 2007). The Manitoba Education and Advanced Learning (2015) music curriculum framework for grades 9-12 identifies four essential learning areas: (a) Making, (b) Creating, (c) Connecting, and (d) Responding. The recursive learnings within the Creating learning area describe how the learner will generate and experiment with ideas, and revise, refine, and share creative work. Moreover, Manitoba includes creativity along with critical thinking, citizenship, connection to self, collaboration, and communication as essential global competencies that lie at the heart of curriculum design (Government of Manitoba, n.d.). It is also important to note that the Manitoba music curriculum framework (2015) clearly states that the four essential learning areas are “not intended to be realized in isolation”, but that they “are intended to function together by integrating the recursive learnings” within them (p. 15). While this action research study was focused on attending to the Creating learning area, natural connections to the other learning areas were made throughout the project.

Music curriculum documents from other Canadian provinces are organized in similar fashions. Western Canadian provincial music curriculum documents include creativity as well. The British Columbia music curriculum is separated into four areas: (a) explore and create, (b) reason and reflect, (c) communicate and document, and (d) connect and expand (British Columbia Ministry of Education, 2018). Notably, in the explore and create area, the only specific reference to creative learning is improvising. However, under the Content Learning Standards, the document clearly indicates that all students are expected to know about and experience the

creative process. This standard appears in the document for all senior years, grades 9-12. In Alberta the music curriculum for instrumental music in senior years has not been revised since 1991, and yet the document clearly identifies that creating through interpretation, improvisation, arranging, and composition is a category of competency in which students are meant to receive instruction (Alberta Ministry of Education, 1991). Notably, the language in the Alberta curriculum is dated and reflective of instructional practice which clearly privileges technical skills and practices aligned strongly with the traditional wind band. However, the Ministry of Education in Alberta is currently in the process of revising curricula for all subject areas and has begun with revising the K-6 document (Alberta Ministry of Education, 2021). This draft document states that students will have “opportunities to connect to the world around them through creating, presenting, appreciating and responding to music” (2021, p. 1) which aligns closely with language used in the British Columbia and Manitoba documents. It stands to reason that the use of such language will be continued in Alberta’s pending revisions to the grade 7-12 curricula as well.

Ontario and Québec are Canada’s most populous provinces. The Ontario government revised the Ontario arts curriculum in 2010. Examination of the front matter of the secondary arts documents yields that the Ontario arts curriculum, including music as well as drama, dance, media arts, visual arts, and exploring and creating in the arts, is based on “four central ideas – *developing creativity, communicating, understanding culture, and making connections* (Ontario Ministry of Education, 2010a, p. 5). Further, the Ontario arts curriculum is organized into three strands: (a) Creating and Performing, (b) Reflecting, Responding, and Analysing, and (c) Foundations. Notably, the Ontario arts curriculum contains a three-page description of the creative process, indicating that, like Manitoba’s curriculum, “use of the creative process is to be

integrated with the critical analysis process in all facets of the arts curriculum” (Ontario Ministry of Education, 2010b, p. 15). Examination of the secondary music curriculum in Québec also yields that creativity is a significant component of the curriculum. In a similar fashion as other provinces, the secondary music curriculum for cycle one in Québec is organized around three “complementary and interdependent competencies”: (a) creates musical works, (b) performs musical works, and (c) appreciates musical works (Québec Ministry of Education, n.d., p. 403). The Québec Education Program arts education for secondary cycle two includes an element called the creative dynamic, referencing the work of Pierre Gosselin who uses the term to describe the creative process as a system built on phased interaction between inspiration (stimulating or generating ideas and intuition), development of these ideas, and distancing (stepping back to see how the ideas fit into a bigger context) (Québec Ministry of Education, 2007). The fact that the Québec documents identify creating musical works separately from performing indicates that creativity is valued highly by the writers of the Québec Education Program.

In Atlantic Canada, creativity is also featured in prominently in a general sense. The Council of Atlantic Ministers of Education and Training (CAMET) is comprised of appointed provincial ministers who are responsible for education and training in their respective provinces, formed following the signing of agreement in 2004 by the Atlantic provinces of New Brunswick, Newfoundland and Labrador, Nova Scotia, and Prince Edward Island to “collaborate on joint undertakings to respond to the needs identified in public and post-secondary education” (Council of Atlantic Ministers of Education and Training, n.d.-b) CAMET developed a Competency Framework which is intended to assist Atlantic Canadians in learning and engaging with their work and community throughout their lives. The framework is broadly organized into three

categories: (a) thinking, (b) connecting, and (c) managing (Council of Atlantic Ministers of Education and Training, n.d.-a). The thinking category includes the clusters (a) self-awareness, (b) problem solving, (c) creativity and innovation, (d) entrepreneurial mindset, (e) critical thinking, and (f) decision making. Since the Atlantic Competency Framework was developed in collaboration by the governments of the Atlantic provinces, it stands that it should inform the content of the provincial curriculum documents. Since creativity is clearly identified as a high-value competency in the Atlantic Competency Framework, it is not surprising that creativity also features prominently in music curricula from the Atlantic provinces (New Brunswick Department of Education, 2001; Newfoundland and Labrador Education and Early Childhood Development, 2018, 2019; Nova Scotia Department of Education and Early Childhood Development, 2021; Prince Edward Island Department of Education, 1997; Prince Edward Island Education and Early Childhood Development, n.d.). The music curricula of all four Atlantic provinces are organized into three broad categories: (a) creating, making, and presenting; (b) understanding, and connecting contexts of time, place, and community; and (c) perceiving and responding (New Brunswick Department of Education, 2001; Newfoundland and Labrador Education and Early Childhood Development, 2018, 2019; Nova Scotia Department of Education and Early Childhood Development, 2021; Prince Edward Island Education and Early Childhood Development, n.d.). Notably, in both BC and the Atlantic music curricula, performance and creative skills have been amalgamated into the same category. Performance skills are accentuated as a primary outcome and creating and/or creative activity is embedded within the parameters of making music. However, emphasis on the valuing of creative processes and products and the social dimensions of learning intersecting with the need for creativity in

daily practice are clearly considered by these curriculum writers and are in alignment with contemporary creativity research.

This curricular emphasis on creating is not unique to Manitoba or the other Canadian provinces. An international analysis of school curricula by Patston et al. (2021) examined how creativity is defined and positioned across twelve national education systems and found that creativity is increasingly framed as a core competency intended to be addressed across subject areas rather than confined to the arts. Their analysis confirms a global shift toward recognizing creativity as a fundamental dimension of learning within compulsory education. However, Patston et al. also noted that while creativity is frequently emphasized at the policy level, curricula often provide limited concrete guidance to support teachers in translating creative mandates into classroom practice—an observation that underscores the importance of pedagogical research focused on enactment within specific domains such as music education.

Exploration of curricular content in the United States and other countries around the world provides additional insight into the ongoing development of music education in a more global sense. For example, in the USA in 2014, the National Association for Music Education (NAfME) created a set of standards which “cultivate a student’s ability to carry out the three Artistic Processes of Creating, Performing, and Responding” (National Association for Music Education, 2023, para. 1). NAfME emphasizes creativity as an essential 21st century skill and has creative activities embedded in all the resources they have made available for teachers in the USA. Examination of the curriculum documents from select states yields that curriculum writers are following the direction provided by NAfME. For example, Texas educators arranged the curricula for all subject areas into Texas Essential Knowledge and Skills (TEKS). Under the heading of Fine Arts, the TEKS for music include four basic strands: (a) music literacy, (b)

creative expression; (c) historical significance; and (d) critical evaluation and response (Texas Music Educators Association, 2023). Like some of the Canadian provinces, creativity is embedded within performance structure as creative expression with occasional reference to composition or improvisation. Music curriculum frameworks in both New York State and California are organized in broad categories of (a) creating, (b) performing, (c) connecting, and (d) responding (California State Board of Education, n.d.; New York State Education Department, 2017), confirming that these states have developed curricula which align with standards outlined by NAFME. There is ample evidence that creativity and creative activities feature prominently in curriculum documents in the United States.

To further establish the presence of creativity in K-12 music curricula on a global scale, a review was conducted of select music curriculum documents from other populous English-speaking countries including Australia, England, South Africa, and New Zealand (Department: Education: Republic of South Africa, 2008; Department for Education, 2014; Ministry of Education, 2014; The Australian Curriculum, n.d.). Australia developed an elaborate and comprehensive curriculum document that was implemented nationwide in 2014. The Australian curriculum for grades F-10 identifies the development of creativity in students as a primary aim for music education in every year (The Australian Curriculum, n.d.). Additionally, the Australian Curriculum includes seven general capabilities which address skills, behaviours, and dispositions associated with success for 21st century learners: (a) literacy, (b) numeracy, (c) information and communication technology capability, (d) critical and creative thinking, (e) personal and social capability, (f) ethical understanding, and (g) intercultural understanding, making it clear that creativity and creative thinking are important elements in the Australian education system. Similarly, the national curriculum of England includes creativity prominently in two of three

aims for students studying music, stating that students will “create and compose music on their own and with others” and “understand and explore how music is created” (Department for Education, 2014, p. 257).

In contrast, the New Zealand curriculum organizes the arts disciplines around four strands which do not include creativity in any of the headings: (a) understanding the arts in context, (b) developing practical knowledge, (c) developing ideas, and (d) communicating and interpreting. While the New Zealand curriculum does not include creativity in the headings of the organizational structure, it does mention creativity specifically within its description of the learning area structure of the Music – Sound arts discipline in relation to the use of technology for creating music and developing musical literacy through creating and improvising (Ministry of Education, 2014). Similarly, the grades 10-12 music curriculum of South Africa does not identify creativity specifically as a learning outcome but does identify creative musical tasks such as improvising and composing as learning outcomes (Department: Education: Republic of South Africa, 2008).

Based on the curriculum documents reviewed, it is evident that creativity is being considered, included, and emphasized in curricula in Canada, the United States, and other English-speaking nations around the world. It is noted that the curriculum documents examined in this literature review were all specific to music or the arts in general where available. The strong presence of creativity evident in the curricula reviewed indicates that curriculum writers are responding to the considerable research and literature supporting the importance of creativity in arts education.

Music Learning Environments that Support Creative Development

Walton (2016) suggests that part of the problem with the two ideas associated with ‘the standard definition of creativity’, novelty and usefulness (Runco & Jaeger, 2012), is that context has significant impact on what it means to be novel or useful. Despite the vast and complex nature of the concept, there are a few select elements and concepts that scholars, leaders, and educators all seem to agree on: creativity is domain specific, it is important, and it is applicable to arts education (Bolden, 2014; Bolden et al., 2023; Cropley, 2015; Fitzpatrick, 2014; Randles & Webster, 2020; Soh, 2017; Sullivan & Willingham, 2002).

Human beings are complicated. Behavioural science is dedicated to making sense of why humans do what they do. Often, humans exhibit dichotomous behaviour by doing exactly the opposite of what evidence indicates as the best course of action. Scholars have offered numerous examples of why humans behave in this way. Surely, this type of dichotomous behaviour could be considered detrimental to creative development. Walton (2016) suggests that to do something creative, an individual needs to move beyond the norm of whatever group they are part of. Hence, fear, group dynamics, and social scripts all present as factors which can potentially hamper creativity. McCuen (2023) defines creative inhibitors as “attitudes, feelings, or organizational policies that act to limit idea generation and creative problem-solving” or “any factor that acts to suppress creative thinking” (p. 82). Factors that can hamper creative thinking or development can arise from the individual, social setting and group dynamics, and institutional policies.

It can also be observed that there is a general lack of diverse musical experiences in a typical large ensemble setting. Programs such as concert band tend to remain rooted in the conservatory system of nineteenth century Western Europe, with the teacher/musician/expert

passing along knowledge and imparting technical skills to their students through the narrow lens of the Western European and North American colonialist perspective (González Ben, 2019; Kratus, 2014; Williams, 2011). It has been suggested that the underrepresentation of creative activities in music classrooms is likely connected to a lack of opportunities for creative musical development while studying music at the university level, and the absence of courses that include instructional approaches for creative development in the music classroom in the context of pre-service music teacher education (Giddings, 2023; Kratus, 1990, 1991, 2014, 2019). Others draw attention to the fact that large ensemble music programs remain largely teacher directed with little-to-no student agency or engagement in the decision-making process, thus exemplifying that simply doing what you are told to do by someone else is not creative (Bolden, 2014). Bolden further suggests that we (the teachers in the music education system) can do better at attending to creative development in large ensemble settings. Other research suggests that students inherently need and want to create music and are doing so through informal study outside of school contexts, perhaps because they do not get the opportunity to do so in school music courses such as concert band (Casas-Mas, 2022; Weatherly et al., 2025).

Time constraints present other realistic factors that may hamper creative development. Productivity, efficiency, and control are major considerations in the business community, and managers impose practices and policies with the intention of maximizing these qualities in their workplace. There are some organizational practices designed to increase productivity and efficiency which inadvertently suppress creativity (Amabile, 1998; Dong et al., 2025). Similarly, in educational settings administrators apply pressure on teachers to deliver the curriculum and improve academic performance of the students which is measured by grades. Hence, the teacher who wishes to maximize their productivity in the classroom and move through curricular content

as efficiently as possible may be hampering the creative development of their students. Despite best efforts in designing creative tasks for them, music teachers may not provide enough time for students to do and finish them (Wiggins, 1999). Furthermore, pressures are placed on music teachers to attend festivals and prepare students for major performances which consumes most of the instructional time. Effectively, the emphasis on performance preparation limits the amount of instructional time which can be spent on creative activities (Bolden, 2012). Some authors are also making connections to the advancement of neoliberal agendas within educational contexts and how this situation may be undermining the effectiveness of creative development in schools (Kanellopoulos, 2015; Powell, 2021).

Factors that enhance creativity must be considered as well. Teachers can take measures to avoid or mitigate factors that hamper creativity, but they can also recognize factors which can enhance creativity and work towards making their classrooms into places that truly foster creativity. As noted by Fitzpatrick (2014), the teacher is positioned best to foster or inhibit creativity in the classroom. The teacher is also responsible for establishing the atmosphere in the classroom. Classrooms that are ripe with a sense of openness and fun in which students can feel safe to express themselves personally will be better suited for creative development. Teacher behaviour can be a significant contributor to fostering creativity in students (Cropley, 2015; Fitzpatrick, 2014; Soh, 2017). Evidently, the teacher's behaviour is directly related to the learning environment in the classroom. Cropley (2015) and Soh (2017) both reported findings summarizing the teacher behaviours that are best suited for fostering student creativity: (a) encouraging students to learn independently, (b) employing a co-operative and socially integrated approach to teaching, (c) motivate students to master subject knowledge, (d) tolerate errors, (e) promote self-assessment, (f) consider student questions seriously, (g) provide multiple

opportunities with varied materials and different contexts, (h) openly address and discuss coping strategies for dealing with frustration and failure, and (i) reward courage as much as being “right”.

In noting that teacher behaviour is a significant factor in fostering creativity in students, it stands to highlight the notion that fostering creativity should be always a goal for all education in all subjects, and “should not be reduced to a collection of set exercises carried out at fixed times as part of a 'creativity programme'” (Cropley, 2015, p. 151). Cropley provides a list of twenty-five recommendations intended for teachers seeking to implement practices to foster creativity in their classrooms. While the entire list is useful, only the first ten recommendations are included here for brevity:

1. Stimulate and maintain a creative group atmosphere that allows learners to speak, think and work free of stress and anxiety and without fear of sanctions.
2. Avoid group pressure and factors such as envy associated with competition but allow and support a co-operative climate.
3. Try to avoid and prevent negative reactions or sanctions by classmates.
4. Provide for adequate alternation of periods of activity and relaxation that foster reflection.
5. Demonstrate and appreciate humour.
6. Stimulate and support free play and manipulation of objects and ideas (e.g., 'What if ...?').
7. Support self-initiated questioning and learning.
8. Provoke and provide for situations challenging, stimulating, or requiring creative behaviour.

9. Be careful with/hold back (excessively) rapid feedback promoting rigid or stereotyped patterns of behaviour or solutions.
10. Act as a model for and support constructive questioning of rules or seemingly indispensable facts or patterns. (Cropley, 2015, p. 151)

These recommendations align with the list of teacher behaviours identified in the previous paragraph. Such research and recommendations seem to indicate that the classroom atmosphere is just as important as the teacher's behaviour in fostering creative development in students, and that the teacher has direct impact on the classroom environment through their behaviour and instructional practice. Through building a supportive environment that is psychologically safe for students and includes opportunity for students to exercise agency in their engagement with the creative process, teachers can foster the creative development of the students.

Bolden and DeLuca (2022) conducted a study examining strategies employed by Canadian music educators to support and nurture creativity in music education settings. Their findings divide observed creativity-nurturing practices into four categories: (a) developing assessment criteria, (b) encouraging creative processes, (c) optimizing the classroom content, and (d) activating self-assessment. These categories align with ideas for nurturing creativity presented in the previous paragraphs. The idea that creativity must be present to be nurtured is implicit. Furthermore, a study from Brazil explored how freedom can promote creativity in students in music education settings and found a positive correlation (Nazario, 2022). In this study, creative freedom was conceptualized as “the reflective process that leads individuals to question the systems and values of their own society and culture, becoming free to think and to create or solve problems with autonomy” (Nazario, 2022, p. 194).

The literature reveals that much research has already been done which identifies factors that both hamper and enhance creativity in a variety of settings and contexts. Key factors which can hamper creativity in educational settings include fear, social dynamics, institutional policies, lack of opportunity in some settings, and time constraints. Key factors which can foster creativity include positive and encouraging classroom environment, teacher behaviour, promoting self-assessment, and freedom.

Effective Pedagogies for Creative Development in 9-12 Music

Given that the literature reveals extensive work on creativity theories and integration into practices it is prudent to examine possible pedagogical considerations concerning creative development and creative activities in educational settings. Since the proposed study is located within the domain of grade 9-12 music education, it is necessary to examine research and the professional practice literature relating to effective pedagogical strategies in this context.

Evidence of effective pedagogical strategies for creative development in primary education is readily accessible. Morin (2002) outlined specific pedagogies for a scaffolded three-component approach to teaching composition with primary aged students. A sixth-grade music teacher in New York guided their class through a composition exercise using a rhythm matrix as an entry point for creating a new piece of music (Baxter & Santantasio, 2012). A music educator in Winnipeg completed an action research study with Grade 4 and 5 students on the topic of creativity as a high value 21st century skill as well as a clearly identified part of the Manitoba Music curriculum (Laidlaw, 2017). Four of six music programs examined in a study completed by Bolden and De Luca (2022) identified creativity nurturing pedagogical practices found in music programs for primary or K-8 students. It is conceivable that the pedagogies identified in

these samples may be adapted for secondary music students in grades 9-12, but these examples are clearly designed for primary music students.

Further review of literature concerned with pedagogical strategies related to creative development in secondary music settings reveals teaching insights more appropriate for adolescents. In her book, *Music Outside the Lines*, Hickey (2012) presents strategies for teaching composition to K-12 students, beginning with compositional prompts around inspiration and identity leading toward connections to musical form and engaging with the musical elements. There are numerous assignments detailed in the book complete with directions on how to scaffold and assess them for various age groups or experience levels. Notably, while this book contains a description of a hypothetical *Music Utopia Elementary School* which imagines a context where composition is thoroughly embedded in the daily activities, there is no such description for a secondary school setting. Kristofferson (2016) describes pedagogical strategies that he uses in a composition course for secondary school students. These strategies include: (a) composing using prefabricated audio loops in digital music software, (b) providing students with both open and closed assignments, and (c) teaching students about harmony to improve their connection between melody and harmonic structure. This author's description of open vs. closed tasks is relevant as it identifies that students can learn skills and concepts through closed tasks with specific parameters and have then freedom to apply and explore those skills and concepts creatively in open tasks without parameters. Xydas (2014) completed a longitudinal study investigating the compositional experiences of students in a secondary school band program in the US. Another resource, *The Routledge Companion to Teaching Music Composition in Schools* (Devaney et al., 2023), addresses music composition in schools from an international

perspective. This volume contains contributions from more than 30 countries highlighting how music composition is addressed in a wide range of contexts around the world.

Of interest is Garnett's (2013) work that explores an approach associated with enterprise pedagogy, which is described as a "collection of practices and theories of teaching that foster enterprise learning" within music education. For this study, enterprise learning is described as "concerned with the personal skills, behaviours and attributes that characterise entrepreneurs, but seeks to apply these to a wide range of life experiences that an enterprising individual might encounter" (Garnett, 2013, p. 1). In short, this action research study examines three cases situated in the UK in which teachers provided a scheme of work for their Year 9 (13-14 years old) students which facilitated the generation of original music for a specific purpose in a project-based learning environment. For example, one of the teachers had their class work in partnership with a Year 12 class to produce a Christmas CD which was sold in aid of a local charity. The class was responsible for many aspects of the project including selecting and performing the music and designing the artwork, and they solicited help from staff and older students to record the tracks. This type of project-based learning provides ample opportunity for creative development through student-centered inquiry and guided investigation, albeit is situated in a general music context as opposed to a large ensemble setting. Similarly, Randles (2022) describes a pedagogical approach in which the music teacher takes on the role of music producer in the music industry in the classroom; dividing a larger class up into smaller groups of 4-5 students, supervising and coaching their rehearsal and creative process, lining up gigs for them, and helping them to establish and reach their goals. In this book, Randles suggests a wholesale shift in how music education can be realized in the secondary setting that requires

teachers to make radical changes to their pedagogical approach, and very likely acquire a new set of skills involving the use of recording equipment.

Advancements in capability, availability, and accessibility of digital music technology have made it possible to derive music education pedagogies that leverage such equipment for creative development. A study from New Zealand examines the use of digital technology in secondary music education programs (Wise et al., 2011). This study examines the work of nine teachers in four schools that were selected on the merit of having thriving music programs and access to digital music technology. All but one of the teacher participants in this study were responsible for teaching composition as part of their teaching load. Technologies used in these schools included Sibelius (music notation software), GarageBand (music sequencing software available on the Apple Mac platform), and MIDI keyboards. Observations recorded from the teachers who participated this study highlight how digital music technology can help increase student engagement and enhance student achievement regarding the composition of music. Notably, these teachers were all using digital technology (especially Sibelius) to address requirements set by the composition achievement standards for the national curriculum of New Zealand. It is also notable that this study contains no discussion of how composition and creativity are incorporated into the routines of the classroom, or in what setting the work is taking place (concert band, choir, general music).

Investigations into effective pedagogies for creative development in music education revealed that research is being completed at the tertiary (post-secondary) level. A study by Love and Barrett (2019) examines teaching and learning strategies employed by master teacher/composers working with selected university-aged emerging composers in an intensive workshop setting with a professional orchestra. Another study examines the alignment of

traditional music education practices with newer ideas and intersections with more current repertoire with students taking Music Education at an Australian university (Mitchell, 2014). Further, Isbell (2016) conducted a study examining the experience of music education students at an American college with vernacular musicianship. While this author does not define the term vernacular musicianship explicitly, the study is based around courses that the author teaches which are designed to provide experiences for students to learn student-selected music aurally in small peer-led groups. Isbell's findings indicated that music education students generally lack experience learning music aurally and are uncomfortable learning music without significant direction, which could lead to these students neglecting to include vernacular musicianship experiences for their own students in the future.

There are resources which describe pedagogical strategies for teaching creativity in a variety of school contexts, including secondary school. Many of these have to do with courses dedicated to composition or music production. While some of these resources are concerned with large ensembles in secondary schools, the contexts vary considerably. Indeed, there are considerable resources which provide suggestions for teaching composition at the grade 9-12 level which provide the insights of professionals working in specific contexts. These examples may be relevant and adaptable to other contexts. The study I am proposing could provide valuable insights into an area which the literature indicates is still underserved in actual practice in many secondary music program settings.

Student Agency in Music Education

Student agency—the capacity for students to make choices, set goals, and take responsibility for their own learning—has gained increasing prominence in educational theory and practice, including within music education (Wiggins, 2015). This concept positions students

as active participants in their learning journeys, shifting away from the traditional view of them as passive recipients of knowledge (Vaughn, 2021). In the context of music education, student agency is recognized as a critical driver of intrinsic motivation, creativity, and long-term engagement in musical practice (O'Neill, 2016).

Research highlights the significant impact of student agency on musical learning, noting that when students are afforded opportunities to exercise agency, they not only take greater ownership of their learning but also deepen their understanding of musical concepts. For instance, studies have demonstrated that student-led activities such as composition, improvisation, and performance allow learners to explore their musical interests and connect their experiences to the music they create (Guarriello, 2019; Hickey, 2012; Stringham, 2010; Swanwick & Lawson, 1999). These practices foster a learning environment where students are empowered to make independent musical choices that reflect their personal preferences and goals. Wiggins (2015) further emphasizes that musical agency allows students to approach music as a form of self-expression, providing them with a means to communicate and explore their identities through sound.

Moreover, the development of student agency in music education is intricately tied to the idea of “musical identity.” According to DeNora (2000, 2016), when students are given the autonomy to make decisions about their music-making, they are more likely to perceive themselves as musicians, fostering a sense of ownership and pride in their abilities. This process of musical identity formation is vital for both skill development and emotional well-being, as it cultivates confidence and a strong sense of self in students. DeNora (2016) also argues that the power of music in daily life contributes to the establishment of musical selfhood, which is central to students' overall development. Musical identity features prominently in the recursive learnings

of Manitoba's music curriculum framework (Manitoba Education and Advanced Learning, 2015).

Several pedagogical strategies have been proposed to promote student agency within the music classroom. Constructivist approaches, which prioritize active learning and collaboration, are particularly effective in giving students a stake in shaping their own learning experiences. These strategies allow for the creation of projects that hold personal meaning for students, such as composing original works or leading peer performances. By engaging students in decision-making, teachers can cultivate a sense of responsibility and encourage active participation in their musical growth (Giddings, 2020; Green, 2017; Randles & Stringham, 2013). Bylica (2020, 2024) argues that pedagogical strategies such as intersecting critical listening with authorial agency and purpose-driven composition approaches in middle school and general music settings fosters student agency by positioning learners as decision-makers who generate ideas, select topics, and shape creative processes in response to personally and socially meaningful contexts. Vaughan (2021) stresses the importance of honoring student voice within the curriculum, suggesting that student agency should not be merely about offering choices but about integrating students' perspectives into the very fabric of the educational process.

In the realm of ensemble-based music education, however, the implementation of student agency may encounter challenges. The hierarchical structure of traditional large ensembles can present a barrier to fostering agency, as decisions are often made by the conductor or teacher. Hess (2023) critiques the conventional large ensemble paradigm and argues for an epistemic justice framework that recognizes and validates diverse ways of knowing and creating music. Facilitating student agency in these contexts may require rethinking the roles of students and teachers, providing students with more collaborative, democratic opportunities to shape the

direction of the ensemble. Gramm (2023) similarly advocates for a shift toward facilitation in modern band programs, where teachers provide guidance while allowing students to lead and take ownership of their learning.

Moreover, the variability in students' musical abilities presents a further challenge in implementing student agency. Jellison (2015) states that ensuring that all students can succeed in an agency-based classroom requires thoughtful differentiation and scaffolding. Teachers must find ways to balance the diverse skill levels of students while maintaining an environment that fosters autonomy and choice. The teacher's role becomes one of both facilitator and mentor, guiding students through the learning process while respecting their individual needs and learning styles. Randles (2022) agrees with this position, proposing that music programs can be restructured with the teacher taking on the role of music producer in the classroom rather than the director.

The COVID-19 pandemic has also underscored the importance of relationality and connection in music education. De Bruin (2021) highlights the challenges faced by instrumental music educators during the pandemic and advocates for a reassertion of relational teaching practices that support student agency. Despite the limitations imposed by remote and hybrid learning environments, teachers have found innovative ways to maintain student agency through digital platforms, demonstrating the adaptability and resilience of both students and educators.

Thorough review of literature in this area reveals that fostering student agency in music education holds the potential to reshape how students engage with music, enhancing creativity, intrinsic motivation, and a robust sense of musical identity. By incorporating pedagogical strategies that emphasize student choice and involvement in the learning process, educators can empower students to become not only skilled musicians but also confident, self-directed learners.

As research continues to explore the complexities of agency in music education, the need for inclusive, flexible, and student-centered approaches becomes ever more apparent, ensuring that all students have the opportunity to find their voice within the musical landscape.

Assessing Creative Development Learning in 9-12 Music

A review of literature on assessing creative work yields that scholars generally agree that assessing creative work is challenging, but possible and necessary. Certainly, scholars such as Torrance were writing about the assessment of creative work since the mid-twentieth century (Torrance, 1959, 1962, 1966). He even developed a method for assessing creativity, referred to as the Torrance Tests, which is still referenced today, although it is not widely used.

It has been established that in large part the systems and practices of today's music education are rooted in the Western European classical tradition. This tradition tends to emphasize the delineation between the roles of performer, listener, and composer and places high value on those who stand apart from everyday people, *virtuoso* performers, the *great* composers. Mitchell (2011, p. 42) argues that "musical creativity should not be reserved for an elite few". This scholar recognizes the inherent challenges associated with assessing and assigning grades to students' creative products. While clearly well informed, Mitchell (2011) offers little on the practice of how to assess creative work. Rather, she focuses on the challenges and identifies factors which the teacher should keep in mind while assessing creative work, such as: (a) formative assessment throughout is critical, (b) the use of rubrics and checklists can discourage students to step outside of their comfort zone if used ineffectively, and (c) a variety of qualitative feedback from multiple sources (teacher and peers) is likely to increase the depth of student engagement with the work. It is reasonable to state that students are more likely to find success in developing their creative capacity and improving their creative products through increased

frequency in engagement with creative tasks and spending time in a learning environment that nurtures and fosters creative thinking and action.

In contrast, Hogan and Winner (2019) examined habits of mind as a framework for assessing students by observing rehearsals of large ensembles (band, choir, and orchestra) in high school settings. For this study, they defined habits of mind as “generalizable ways of thinking that are big and broad, not necessarily specific to the music domain” (Hogan & Winner, 2019, p. 204). The findings of this study indicate that eight habits of mind were readily observed to be taught: (a) engage and persist, (b) evaluate, (c) express, (d) imagine, (e) listen, (f) notice, (g) participate in community, and (h) set goals and be prepared. Notably, the authors observed that using creativity was not found as a habit of mind that was taught or assessed in their observations. Further, Kratus (2019) explores the implications of standardized assessment in music education and compares it to George Ritzer’s theory of McDonaldization, which describes a process in which business principles of the fast-food industry are increasingly present in other sectors. Kratus comments on each of the four categories of McDonaldization and draws comparisons with music education. These categories of efficiency, calculability, predictability, and control are closely related to identified factors which hamper or inhibit creative development such as time constraints and systemic pressure.

Kokotsaki and Newton (2015) completed a study examining how trainee music teachers in the UK assess the musical creativity of students. Seventeen postgraduate teachers in training all had the opportunity to assess nine compositions created by 13-year-old students. The approach taken in the study specifically analyzed the creative products and did not consider the creative process. The authors determined that this approach led to a practical approach which

also identified some attributes which can help teachers to “recognize, evaluate, and promote children’s creative responses in music” (Kokotsaki & Newton, 2015, p. 491).

Bolden and DeLuca (2022) recognize that creativity can be assessed in music education, using summative (assessment *of* learning, AOL) and formative (assessment *for* learning, AFL) approaches. Their case study of six music teachers from different teaching contexts across Ontario examined “how teachers are making use of AFL strategies to nurture musical creativity in Canadian classrooms (Bolden & DeLuca, 2022, p. 274). According to Bolden and DeLuca, teachers frequently avoid assessing creativity for fear of supressing self-expression in the student or because they believe it to be “too subjective to assess” (2022, p. 275). Data for this study was collected through interviews with the participating teachers and the findings from the data analysis are represented in a four-category model of relevant strategies: (a) developing assessment criteria, (b) encouraging creative process, (c) optimizing the classroom context, and (d) activating self-assessment. The data suggested that the development of assessment criteria could nurture creative development if it is done cooperatively with students and is dynamic, i.e., the criteria are flexible and can change throughout the project. These teachers found that early assessment criteria tend to be more concrete or procedural, with more complex or abstract criteria (does it feel the way it was intended to feel) are added later. Encouraging the creative process comes in the form of asking probing questions, posing technical challenges, and praising risk-taking. Optimizing the classroom context (also discussed previously in this literature review) mainly has to do with providing frequent and meaningful feedback in an environment that supports risk-taking and is accepting of mistakes. The findings also show that activating self-assessment, or critical self-reflection, had perhaps the greatest impact on nurturing creativity in students. The teachers in this study are primarily activating self-assessment in their students by

giving feedback in the form of guiding/probing questions which lead to reflection or self-assessment (Bolden & DeLuca, 2022). The strategies described in this study are generalised for K-12 music education settings, however two of the six participating teachers were working in 9-12 settings.

Recent practitioner-focused scholarship has further emphasized the importance and feasibility of assessing creative musical work when assessment is grounded in clarity of purpose and attention to process. Hatch (2023) argues that assessing student compositions is essential not only for evaluating learning outcomes but for supporting ongoing creative growth through targeted formative feedback. Distinguishing between formative assessment that refines students' musical thinking and summative assessment that reflects on overall intentions and execution, Hatch emphasizes that effective creative assessment requires teachers to attend to student decision-making, intention, and development over time rather than relying on comparative judgments of product quality. This perspective aligns closely with Manitoba's approach to assessment in music education, where educators are expected to assess students' engagement with the creative process as it unfolds—such as generating ideas, experimenting with musical materials, and revising work—rather than attempting to measure creativity as a fixed trait.

Thorough review of available literature on assessment of creativity in music education contexts revealed considerable references relating to assessment in music education. Within these are examples of how various assessment strategies can be applied in a variety of contexts. The literature clearly reveals that assessment of creativity in a large ensemble setting is challenging but critical and context specific. However, in Manitoba, educators are not expected to assess creativity but rather the learned processes for creating music. The proposed study could help to address this significant facet of assessment in music education. Manitoba's conceptual

framework for describing learning growth—*Breadth, Depth, and Transformation* (BDT)—supports process-oriented assessment by providing teachers with a way to recognize how students’ creative thinking develops over time (Manitoba Education and Advanced Learning, 2015). Breadth refers to the range of ideas and approaches a learner explores; Depth captures the student’s increasing ability to refine, extend, and justify their musical decisions; and Transformation reflects moments when students synthesize their learning in ways that meaningfully reshape their understanding or artistic intentions. When used to assess creative music learning, BDT shifts the focus from evaluating the creativity of a product to noticing the quality of engagement in the creative process—aligning with research emphasizing formative, descriptive, and growth-oriented assessment practices (Bolden & DeLuca, 2022; Hatch, 2022).

Conclusion

There is ample literature on the topic of creativity spanning nearly a century of thinking, research, and writing. Literature addressing the importance of creativity in the domain of education and more specifically in music education is readily available. Curriculum writers in Canada and abroad are including creativity in the learning outcomes of music curricula and connecting it to other curricular areas. Scholars have identified the need to increase the number of creative tasks in music classrooms and develop learning environments which promote creativity. There are several identifiable and addressable factors which can readily hamper and enhance creative development in music classrooms. Literature is available on pedagogical strategies for teaching creative development and on assessing creative tasks. However, there are gaps in the literature on specific pedagogies for incorporating creative tasks in large ensemble settings and for assessing engagement with the creative process in large ensemble settings. These gaps create the need for this study.

Chapter 3: Methodology and Research Design

This chapter outlines the research methodology and the procedures employed for this study. I begin with providing a justification for the use of action research to answer my research questions. I then turn to a discussion of my positionality in relation to this study, a description of the research participants and setting, and an overview of the pedagogical innovation implemented in the study. The approaches I used for data collection and analysis are presented, as are the validity criteria I attended to in my inquiry work. And finally, the strengths and limitations of the methodology are offered.

Purpose and Objectives of the Study

The purpose of this study was to examine, reflect upon, and improve my teaching practice related to the “creating” music component of the *Grades 9 to 12 Music: Manitoba Curriculum Framework* (2015). Throughout this study, I aimed to: (a) consider how creative learning experiences are incorporated in my instructional practice; (b) expand my current (and potentially future) students’ capacity for creating musical works; and (c) explore possibilities for assessing creative work. I also provided my students with meaningful opportunities to generate creative work.

Research Questions

There are three research questions that follow which are guiding my action research study.

1. How can I better address the “Creating” essential learning component of the *Grades 9 to 12 Music: Manitoba Curriculum Framework* in the large ensemble-based music courses I instruct?

2. How can I apply Manitoba's conceptual framework for music learning growth when assessing the creative music growth of my students using the dimensions of breadth, depth, and transformation?
3. What impact will my action strategies for creative learning experiences in music have on my grade 9-12 students' learning growth related to creating music?

Justifying an Action Research Approach

The core purpose of this research project was to examine and improve my instructional practices in large music ensemble settings, specifically regarding the incorporation of creative development learning experiences into regular instruction. Every day, I work in my classroom with my students toward the goal of helping them to use music as a form of expression and communication. I was interested in improving my pedagogical practice, specifically in finding ways to better address my students' creative development. Action research is the methodology that teacher researchers use to address their goals of improving practice with their own students in the context of their own classrooms (Stringer & Aragón, 2020). The theory that undergirds this approach is pragmatism (Biesenthal, 2014), which can be defined in general terms as addressing a practical problem within a practical situation and constructing new knowledge in so doing. Pragmatism as it relates to action research is often thought of as a "philosophical method of doing" (Biesenthal, 2014, p. 648) as it seeks to make meaning of concepts within specific contexts. As such, a pragmatic approach was the foundation of this action research study and provided the means to enhance my own practice and improve student learning.

Action research can be considered as a cyclical series of processes that allows the researcher and participants to adapt to any changes in understandings or new information that emerges along the way. These processes can be described in a look-think-act framework: (a) look

(gathering data by looking, listening, and recording within the context of the researcher and participant's lives), (b) think (reflecting on and analyzing the information to identify key features and/or elements), and (c) act (using the emerging ideas to form solutions to the research problems at hand) (Stringer & Aragón, 2020). These cyclical stages represent a systematic form of inquiry that allows the researcher and participants to “maintain focus on the central features of a rigorous yet adaptive approach to investigation” (Stringer & Aragón, 2020, p. 82). As this study was centered around the implementation of a pedagogical innovation, looking, thinking, and acting were required to help students succeed in their exploration of the creative process and to make any revisions to my instruction (if necessary) to best serve student success in engaging with these creative learning experiences. Student success in this case was defined as demonstrated engagement with generating and developing musical idea and sharing them with their peers.

The use of action research for this study was appropriate since it is intended to be “a practical form of enquiry that enables anyone in every job and walk of life to investigate and evaluate their work” (McNiff, 2017, p. 9). In keeping with the philosophic underpinnings of pragmatism, action research positions the researcher amidst the participants and enables them to engage deeply and empathetically with participants to co-create the conditions for successful engagement with new information (Stringer & Aragón, 2020). Action research is also a viable form of professional development, and it enabled me to gain professional knowledge (Stringer & Aragón, 2020). Sharing my study results in this document may also help other teachers who work in similar contexts.

Researcher's Positionality

I am a White settler with German and British roots, I have been married to the same partner for over two and half decades with whom I share two children, both of whom are now adults. I was born and raised in a suburban, upper middle-class household on the Canadian prairies. I am a professional guitarist, and an active member of the choral community serving as the Artistic Director of an auditioned community youth choir for more than 15 years. I have been working as a music educator in the public school system for 21 years and I am currently in my 15th year in my current post in the high school setting. In addition to my experience in public schools, I taught private music lessons for 17 years. Throughout my life I have engaged with the creative process in a variety of ways, mainly in writing and arranging music and improvising, but also in solving problems around my home related to construction/renovation/repair of physical space.

Philosophically, I am drawn to the phenomenological idea that everything that we know is a product of our own unique experiences and perception of our reality. Therefore, my worldview aligns most strongly with constructivism as I continue to make meaning out of new experiences and information by adding and comparing them to my existing understandings. As discussed in the previous section, my approach to this research is underpinned by the pragmatic idea that I can address a problem directly in my workplace and determine a solution in so doing. My role as a music teacher in a high school conducting a research study examining my own practice through the learning and products of my students positioned me as an insider in this context. Throughout this study, I worked hard to remain aware of any explicit bias I may have and took care that my bias did not unduly influence the data collected. However, it should be noted that my position within the culture and community that this work was completed affords

me a unique perspective that someone outside this community would not be able to access. As Reich (2021) suggests, my positionality as an “embodied actor” directly impacted my questioning, practice, and analysis as well as informing my understanding of “how participants’ lived experiences and meaningful perspectives are historically and socially located” (Reich, 2021, p. 576).

Research Context

This study was conducted in a dual track (English and French Immersion) secondary school situated in a suburban area in a large city on the Canadian prairies. At the time of the study, the school served approximately 1330 students enrolled in grades 9-12 with three different academic tracks including English, French Immersion, and sTeam (science, technology, engineering, arts, mathematics all taught within a project-based learning environment). The school community is culturally diverse with significant representation from a multi-cultural Canadian background, a prominent population of Indigenous students as well as immigrant families originating from countries such as Syria, Ukraine, India, Philippines, Vietnam, Nigeria, and many more. Similarly, the school community includes families from a wide range of socio-economic status.

At the time of this study, music classes were offered as optional elective courses. Course offerings for grades 9-12 included concert band, jazz band, and choir. These courses were organized in a multi-age structure in which students from all grades and experience levels work alongside each other, except for grade 9 concert band which was scheduled separately to allow for a smaller class size and a narrower focus on instrumental competency development. These courses were scheduled on every other day for the full school year, again except for the grade 9 concert band which was scheduled every day for one semester. Additional music courses

included guitar and music production (music composition using notation and production software) and these courses were offered as one-semester courses for students in grades 10-12.

This action research study was specifically focused on examining creative learning experiences in the concert band setting. The band room in the school was well outfitted with a typical array of instruments including some middle range wind and brass instruments such as tenor saxophones and French horns as well as low wind and brass instruments such as baritone saxophones, trombones, euphoniums, and tubas. There was also a wide assortment of concert and jazz percussion instruments, upright and electric basses, acoustic pianos, acoustic and electric guitars, and digital/stage pianos. Additionally, students had access to recording equipment including microphones, digital audio interfaces, and DAWs (Digital Audio Workspaces). In short, students in the band program in this school had access to many tools that could be used to facilitate musical creativity.

Given that large ensemble music education is historically rooted in Eurocentric conservatory traditions (González Ben, 2019; Hess, 2021, 2023), I recognized the need to ensure that the creative processes used in this study are equitable, inclusive, and culturally responsive. To this end, I designed the pedagogical innovation with student agency, identity, and diverse musical ways of knowing in mind. Students were encouraged to draw from their own musical and cultural backgrounds, select genres and sound sources meaningful to them, and document their creative process in accessible formats. These choices ensured that creative work was not restricted to Western art-music norms or to students with formal training. In alignment with Nazario's (2022) conditions for equitable creative development, creative activities allowed participation at all skill levels, validated multiple sound sources, and foregrounded collaborative meaning-making. My role shifted from conductor-authority to facilitator and co-learner (Gramm,

2023; Randles, 2022) to reduce hierarchical power structures and support a psychologically safe, relational environment. These commitments endeavored to ensure that issues of social justice, equity, diversity, and inclusion were intentionally embedded in the design, implementation, and assessment of creative learning experiences for all students in the large ensemble setting.

I chose this context for this action research study because I am concerned with improving my practice with my own students in my own school context. Action research afforded me the opportunity to study my teaching and students' learning in a systematic and rigorous way. This music room was my workplace, and I was comfortable in the space and functionally proficient with all the instruments and technology available to the students. Consequently, I was well positioned to help students solve problems and answer questions they may have while engaging with creative activities in the space.

Research Design

The primary focus of this study as identified in the research questions was for me to examine how I could better address the “Creating” essential learning area of the *Grades 9 to 12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015), acknowledging that doing so would necessarily involve the other three essential learning areas because these areas are not intended to be addressed in isolation. Rather, they are “intended to function together by integrating the recursive learnings” (Manitoba Education and Advanced Learning, 2015, p. 13). The pedagogical innovation I implemented for this study took place over a five-month period from September 2024 through January 2025, culminating in a sharing of creative products and creative music learning within the class context. While the total time of this innovation represented a full cycle of action research, I was able to enact mini look-think-act cycles throughout the process, allowing for deep engagement and examination of my practice.

I designed a sequence of creative music learning experiences which align with the recursive learnings found in the Creating area of the *Grades 9 to 12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015) and are informed by relevant references regarding creativity and composition in high school music programs (Bolden, 2023; Hickey, 2012; Hill, 2019; Menard, 2015; Mitchell, 2011; Randles, 2019; Wendzich & Andrews, 2019). In the interest of maximizing student agency and voice (Randles & Webster, 2020) in these creative experiences, the criteria for output were left open-ended. I have observed that students in my band program come from a widely varied background of entering musical knowledge and competencies which is frequently attributable to music education experiences outside of their public-school music education such as private music lessons. Consequently, there is no set of criteria that is readily applicable to students in a particular grade level or ensemble. The criteria for output of this intervention allowed for students to engage with the creative process at their current level of musical knowledge and skill and generate a product that aligns with their knowledge and skills. Simply stated, students were tasked with creating their choice of: (a) an original piece of music for any format of performance (could be solo, ensemble, instrumental, vocal, digital, or any combination), (b) an original musical setting of an existing work (poem, lyric, or prose), (c) an original soundtrack for a short film or video, or (d) a novel arrangement of an existing work that involves the generation of new material.

Conditions for Creative Learning

Most of the works examined in the literature review for this study revealed that literature on this topic refer almost exclusively to creative learning experiences in senior years music programs as composition and/or improvisation. While it is undeniable that creativity is a key element of both composition and improvisation, it is also prudent to consider the constraints that

may exist from any number of sources such as, but not limited to, social constructs or expectations, instructional constraints founded in overly specific criteria, or musical practices which rely heavily on the repetition of actions leading to known outcomes (Nazario, 2022). Given the wide variability in the entering sets of students' music competencies in a concert band program, it is highly improbable that they will generate creative ideas and products with any consistency regarding complexity or musical sophistication. Nor is it practical to expect that even with a detailed and scaffolded approach to creative activities that any kind of consistent level could be attained in the creative products of a set of students. Moreover, the enacted learnings associated with generating musical ideas in the Manitoba 9-12 music curriculum (2015, p. 30) don't refer to any criteria involving complexity or musical sophistication. Nazario argues that creative development relating to musical performance can only be attained if the following conditions are present.

1. Activities should provide an environment that allows everyone the possibility of creating music together, regardless of the different levels of knowledge that the students have.
2. Because music is constructed through the meanings that we attribute to sounds, activities should broaden these meanings, enabling students to open up to new ways of understanding, listening to, and creating music.
3. Activities should make possible the creation of music from any sound source (e.g., the human body, the voice, and objects), enabling students to explore musicality simply and without requiring specialized knowledge.
4. Most activities should be collective because they enable communication, interaction and discoveries that are proper to a collaborative dialogue. Being free creatively implies

reflecting not only on our actions but also on the effects of our actions on others' actions, that is, on the collective. (Nazario, 2022, pp. 196–197)

These conditions resonate strongly with me, and I endeavored to incorporate them into the pedagogical innovation for this study. It was my intention to provide opportunities for my students to develop their creative thinking and problem-solving skills by engaging with the creative process at whatever level is suitable for them at the present time; that is, I did not aim to teach them “how to write a song” or expect them to create a piece of music in a specific style or length or format. Making choices about what to create is just as important to the process as actually producing the work. My position on the matter of providing more room for freedom of choice and fewer teacher-imposed parameters aligns with Hickey (2012) who states that teachers “should offer more open assignments with fewer parameters ... in order to give students the chance to explore and create music within their own boundaries” (p. 16).

The Teaching Innovation Process

Step 1: Inspiration. Drawing from Hickey’s (2012) work, my pedagogical innovation began with a prompt for the students: “What (movie, book, comic, event, story, song, poem, etc.) could inspire ideas for my next composition or creation?” Hickey goes on to argue that “authentic music composition emerges from an inspiration” (p. 63). Adolescents live emotionally charged lives and are biologically wired to have strong and impulsive reactions to stimuli. Burnard (as cited in Hickey, 2012) argues that students naturally store and draw from music they have heard before to create new ideas. Thus, anything they have heard before can be the spark that generates a new idea. So, the innovation began by prompting the students to consider personal sources of inspiration and discuss among themselves. Having identified sources of inspiration, students were directed to select one or more source that could be useful for this

project. Once students identified a source for inspiration, they were asked to generate ideas and locate a starting point for their musical creation.

Step 2: How to Begin and Where to Go Next? Finding a place to start can be one of the most intimidating steps of creative work. Hickey (2012) suggests that engaging students in activities which involve defining, listening, and exploring music in a variety of ways can give them access to entry points in establishing a starting point. Students all enter the music room with an individualized concept of “what is music” based on their previous experiences. Engaging with class discussion on the definition of a term helped focus student attention on the task they were trying to complete. Next, students were directed to explore and document a range of resources and stimuli to gain insight and inspiration and further develop their initial idea. It was recommended that students should document their thought processes throughout this project for ease of reference and for tracking their engagement in the creative process. They were directed to think of this documentation as journalling and were allowed to choose which format(s) they would use such as music notation, blog, audio/video recording, or a written journal (hand-written or typed). Students were free to reject their initial idea in this phase and elect to begin again if they felt it was necessary. Students were encouraged to engage in a cycle of experimentation and idea generation following the prompt, “In what ways could I experiment with my ideas to see whether they will work and to find out what changes could be made?” This cycle was derived from the Geneplore model (Finke et al., 1996). The cycle of experimentation and idea generation supported by documentation of process allows the students to return to musical ideas they may have had previously which is valuable to the creative process (Hickey, 2012).

Step 3: Feedback. Feedback from peers can provide valuable insight to learners (Mitchell, 2011) and formed an important aspect of this project. Multiple opportunities were

provided in class over the duration of the project for students to share their work with other students and the teacher for the purpose of gathering constructive feedback. These feedback sessions often took place during class by dividing the ensemble into small groups of four to six students to better facilitate peer engagement with the feedback process. As part of the feedback process, students were encouraged to incorporate the concept of *plus-ing* where collaborative learners can accept an idea and add to it (Kelly & Leggo, 2008, p. 321). Students were directed to keep a record of feedback they had received as part of their ongoing documentation throughout the project. Documenting their creative process helped the students reflect on their decisions and work as well as trace how feedback impacted their process as well as their creative product.

Step 4: Presenting the Product. In the last step of this project, students shared their creative product with their peers. They had the option of presenting their work through live performance, recorded performance (video or audio), computer generated performance, or some combination of the above. The setting for the presentation of creative products was the band room where students meet regularly. Sharing music creations with communicative intent to an audience aligns directly with the recursive learnings of the curriculum (Manitoba Education and Advanced Learning, 2015). Further to step 3 in this project, students had the opportunity to give and receive feedback in the presentation stage. Following the presentation of their work, students had the opportunity to reflect on their work and engagement with the creative process via a student questionnaire. This critical self-reflection was guided by questions such as “How has your experience with this project increased your overall growth as a creative student musician?”; “What did you learn about yourself as a student musician?”, and “What are some of the challenges you experienced while working on this project?”

Assessment of Creative Work. Student work was assessed for creative learning growth. Assessing creative learning growth is possible using the signposts of Breadth, Depth, and Transformation (BDT) described in the appendix of the Manitoba 9-12 Music curriculum (Manitoba Education and Advanced Learning, 2015). BDT were introduced and explored in class discussions to familiarize the students with these concepts as a framework for leaning. Students had the opportunity to consider these signposts of learning throughout this project and also had opportunities to self-assess their progress against them. I assessed the students' creative learning growth using a rubric derived from these signposts and associated with the three Creating recursive learnings. This rubric was co-designed with the students at the beginning of the project and adjusted throughout the project in accordance with any developments that emerged along the way.

Recruitment of Participants

The pedagogical innovation outlined for this study was completed by all students enrolled in Grade 9-12 concert band at the time of the study. Since this innovation is directly related to outcomes in the Creativity area in the official curriculum for music education in grades 9-12 in Manitoba (Manitoba Education and Advanced Learning, 2015), all students taking the course were tasked to engage with the creative learning experiences and complete the assignments as part of their coursework. I implemented these pedagogies and assessed them for all students whether they participated in the study or not. Students benefited from completing this project through an opportunity to engage in learning in an area which is not historically given much attention in ensemble music courses. Students were also afforded the opportunity to provide feedback to me which may help them in future courses, with me, or other teachers. All students enrolled in concert band participated in course experiences and creative learning experiences.

They were asked to voluntarily allow their responses and products generated through those experiences to be used for secondary purposes as data for this research study. At any time, students were able to change their mind and withdraw their responses from the study for any reason. Students opting to participate in the research study had the benefit of knowing that their work has contributed to advancing pedagogical knowledge and helping teachers to improve their practice. There was minimal risk to the student by participating in the study, no more risk than when they typically come to school on any given day.

Once recruitment protocols had been completed, a total of 12 students consented (along with their parent/guardian permission) to participate in the study (n=12). At the close of the project in February 2025, I relinquished all student-submitted data to a third-party research assistant (RA). This RA culled all data from students who did not elect to participate, de-identified the remaining data, assigned pseudonyms to the data (students 1-12), and shared the de-identified data with me via a shared folder in Microsoft OneDrive. This de-identified data became my source material for the study along with my field notes and audio recordings of selected lessons.

Ethical Considerations

The purpose of this study was to examine and improve my practice as an educator and in so doing provide rich and rewarding learning experiences for my current and future students. While my intentions originated from a desire to improve my practice, and hence the educational experiences of my students, undoubtedly there were ethical considerations that needed to be addressed to maintain the safety of the research participants and mitigate any risks to them as much as possible. The next section outlines those ethical considerations and describes how they were addressed.

Consent Letters and Power-over Relationship

In the case of this study, I was in a dual relationship with the participants, namely teacher-researcher. As the teacher, I was in a power-over relationship with my students as I was responsible for their instruction, their assessment, and their grade in my course. The power-over situation was declared in the recruitment process and the informed consent materials. To ensure that student academic achievement remained unaffected by their participation (or lack thereof) in the study, I enlisted an unbiased third party (school division music consultant) to collect student consent forms and withhold them from me until after final marks for the term had been submitted. Furthermore, a RA took all student data collected over the course of the project, extracted the participant data, and de-identified it prior to giving it back to me for analysis. In this manner, I had no way of knowing which students were participating in the study, effectively mitigating any risk of participation in the study bearing any implication on their evaluation in the course. Additionally, students were assured that participation by allowing their work on the project (responses, recordings, performances) to be included was entirely elective, and they could freely withdraw from any aspect of the study at any time.

The student participants were in Grades 9-12, aged 14-18 years, and subsequently required the consent of their parent(s)/guardian(s) to share data for secondary research purposes. With the approval of my school division and school administration, a consent letter (Appendix A) was sent home to acquire parent/guardian signatures indicating their consent for their child to participate in the study. Additionally, an information meeting chaired by a third party was scheduled for parents/guardians and potential participants. Contact information for myself, the school administration, and my Faculty Advisor were provided in the letter. A neutral third-party (school division music consultant) was enlisted to recruit participants from the student body at a

participant recruitment session using a pre-written script (Appendix B). The research intent, methodology, duration, and other relevant information regarding the study were outlined in the letter and in the script for the meeting. Parents/guardians were asked to give consent for any data collected during the study to be used for research purposes. Furthermore, parents/guardians were asked to give consent to sharing video data for secondary research purposes. Student participants were asked to provide written assent in the letters in addition to their parent/guardian (Appendix C). Students over the age of 18 could complete their own consent letters without involving their parents. Also attached is a confidentiality agreement requesting that students agree to keep their participation status anonymous. Parents/guardians who provided consent for their child to participate for research purposes, but did not consent to the sharing their child's video in public contexts were assured that such videos would not be made public and would be deleted following data analysis.

Social Justice, Equity, Diversity, and Inclusion in the Research Process

Given the diverse cultural, linguistic, and socioeconomic composition of the school community, and consistent with the Tri-Council Policy Statement (2022) principles of Justice and Concern for Welfare, I took intentional steps to ensure that all students could participate equitably in both the learning and research processes. Recognizing that large ensemble settings often privilege Eurocentric musical norms (Hess, 2021, 2023), I designed creative tasks that allow multiple points of entry, validate diverse musical practices, and do not require specialized Western instrumental training. This reduced barriers that could otherwise disproportionately affect newcomer students, Indigenous students, or students without access to private music instruction. Participation in the research did not depend on students demonstrating traditional forms of musical literacy; documentation could be completed in multimodal formats (audio,

video, notation, journaling), ensuring accessibility for multilingual learners and learners with differing abilities. The emphasis on student agency in selecting genres, sound sources, and creative processes further supported ethical inclusion by affirming student identity and cultural background as legitimate sources of musical knowledge. These practices helped mitigate inequities that could arise from the power-over dynamic, ensuring that students' participation in the study was culturally responsive, inclusive, and grounded in respect for diverse ways of knowing. Moreover, these practices aligned with current scholarly advice on how to ensure equity and inclusion within a diverse multicultural context in Canada (Van den Hoonaard & Van den Scott, 2022).

Use of Video Recording as a Data Source

Although the initial research design included video recording as a potential data source, it was necessary to eliminate its use over the course of the project. In the proposal phase, video was anticipated to be an important means of capturing students' creative processes, documenting pedagogical interactions, and preserving performances of student-created works. This expectation reflected common practices in music education research, where video is frequently used to support analysis of performance, interaction, and learning (Cutter-Mackenzie et al., 2015; Derry, 2007; Hepplewhite, 2014; Putman & Rock, 2018). In practice, however, several contextual and ethical factors emerged that made video an unsuitable primary data source for this study.

First, as the project unfolded, it became apparent that the richest insights into student learning came from data sources that foregrounded students' thinking and decision-making rather than their final performances. Student journals, field notes, audio-recorded lessons, and questionnaires provided detailed accounts of students' engagement in the creative process, which

was the core focus of the inquiry. In contrast, the available video recordings primarily captured performances of completed or near-completed products. Because the analytic emphasis of this study was on students' processes of idea generation, experimentation, reflection, and revision, product-centred video footage offered limited additional insight beyond what had already been documented through written and audio data.

Second, substantial challenges arose regarding the de-identification of video data. While the use of pseudonyms was sufficient for text-based and audio-based sources, video recordings inherently risked exposing student identities due to the visibility of faces, bodies, instruments, and classroom spaces. Although video-editing tools such as face blurring and "fuzzing" techniques can mitigate these risks, applying them consistently and effectively across all footage is time-intensive and did not guarantee to fully eliminate the potential for identification. Considering the ethical obligations outlined in the Tri-Council Policy Statement (2022) and the University of Manitoba Human Ethics Resource Committee (2012), ensuring participant anonymity while using video as data was not possible for this study.

Finally, practical considerations related to data management contributed to the decision to eliminate video recordings in analysis. Capturing, storing, editing, and securing large video files while maintaining confidentiality posed logistical challenges that were disproportionate to the analytic value of the material, especially given the strength of the other data sources.

For these reasons, although video recordings of student performances and presentations exist, they were not included as data for analysis in this thesis. Instead, they functioned solely as instructional artifacts within the classroom context. The decision to exclude video does not diminish the depth of the findings; rather, it reflects an alignment with the study's focus on

creative processes, as well as adherence to ethical principles regarding participant protection, confidentiality, and responsible data handling.

Secondary Use of Data

Students and their parents/guardians were assured that the identities of those participating in the study will be protected in any future publications that may derive from the research. All student-generated data were de-identified by a third-party RA and pseudonyms were applied to each participant. The pseudonyms were used in analysis and will be used in any future publications to further protect student identities. Authors of the Tri-Council Policy Statement (Canadian Institutes of Health Research et al., 2022) have identified circumstances where secondary use of data may be permissible, including: “avoidance of duplication in primary collection and the associated reduction of burdens on participants; comparison or change in a research sample over time ... and confirmation that the data are authentic” (p. 87). These considerations informed the handling of all de-identified data included in this study.

For these reasons, video recordings were retained solely as instructional artifacts and were not included in the data analysis or findings of this thesis. In accordance with the informed consent, video data relating to consenting students are stored in a password-protected folder in a University of Manitoba OneDrive account until June 30, 2030. If any video data from this study is shared during an academic conference or presentation, the video will be de-identified, and a brief preamble will be given requesting that audience members refrain from recording any audio or video on their personal devices to further protect the identities of student participants. However, it must be clearly stated that no video material contributed to the research data sets for this study.

Data Sources and Collection

This study involved data collection from a variety of sources. According to Stringer and Aragón (2020), interviews with key stakeholders provide a strong initial data source at the outset of a study, “but as the focus of investigation and the issues to be incorporated become clearer, other sources of data may become relevant” (p. 138). Given that this study examined the creative process and creative music learning growth, much of the data was collected as the project unfolded in my classroom and took the form of student journals, transcripts of audio recordings of lessons, researcher field notes, and student questionnaires. In accordance with the ethical considerations established for this study, all student generated data were de-identified by a third-party RA before I received them. The literature also served as a data source to help inform my instruction throughout the project, and later triangulate my findings with those of other researchers. A data collection matrix is included below which shows data sources and collection strategies in relation to the research questions (Table 1).

Table 1

Data Collection Matrix

Research Questions	Data Sources and Collection Strategies		
	Teacher Researcher	Students	Music and Education Scholars
<i>How can I better address the “Creating” essential learning component of the Manitoba Curriculum Framework for Grades 9 to 12 Music in the large ensemble-based music courses I instruct?</i>	Field Notes Audio Recordings	Student Journals Student Questionnaires	Collection and Review of Related Literature
<i>How can I apply Manitoba’s conceptual framework for music learning growth for assessing the music creative growth of my students using the dimensions of BDT?</i>	Field Notes	Student Journals	

<i>What impact will my action strategies for creative learning experiences in music have on my grade 9-12 students' learning growth related to creating music?</i>	Field Notes Audio recordings	Student Questionnaires Student Journals	
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Field Notes and Audio Recordings

As the teacher of this course, I took on the role of an active participant observer while being engaged in professional practice. I took field notes to record observations of student progress and engagement throughout the timeframe of the project, as well as reflections on my pedagogical practice. Stringer and Aragón (2020) state that recording observations as field notes results in “a record of important elements of the context of the participants” (p.140). These field notes included general observations of the creative process underway in my classroom, as well as how it was unfolding for specific students in the class. I have no way of knowing which of my students gave consent for their work to be included as data in the research, so any notes referring to specific students were de-identified to protect the students' identities.

Assessment of Student Work

Assessment of students' creative achievements provided another source of data for this project. While this project attended to all the recursive learning indicators in the Creativity area co-mingled with the others essential learning areas found in the *Grades 9 to 12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015), assessment focused on the following enacted learnings:

- M-CR1: The learner generates ideas from a variety of sources for creating music by
 - drawing inspiration from personal experiences and relevant sources
 - considering other arts disciplines (dance, dramatic arts, media arts, visual arts) and subject areas to inspire ideas

- engaging in collaborative idea generation (plus-ing) as inspiration and fuel for moving ideas forward
- M-CR2: The learner experiments with, develops and uses ideas for creating music by
 - engaging in cycles of experimentation and idea generation to consider possibilities and test out and elaborate ideas
 - selecting, synthesizing, and organizing promising ideas, motifs, themes, and music elements to arrange, improvise, and compose, and for music production and creation
- M-CR3: The learner revises, refines, and shares music ideas and creative work by
 - selecting and sharing music work in progress for ongoing feedback
 - finalizing and sharing music creation, composition, and/or arrangement with communicative intent and audience in mind. (p. 30, 32, & 34)

It is important to note that the intent of assessment is not about quality of work, but rather the students' learning growth in creating music. The signposts of learning in music, BDT, can be found in the Appendix of the *Grades 9 to 12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015). From this framework, I created an adaptation of these signposts modified to suit the purposes of assessing students' creative learning growth which was used as a starting point to develop indicators of student progress. This chart was adapted collaboratively with my students into a rubric (see Appendix D) as the project unfolded. Students were encouraged to refer to this rubric to gauge their learning throughout the project and had the opportunity to self-evaluate their growth in relation to the signposts at the end of the project. Participant data were collected, de-identified, and shared with me by a third-party RA.

Student Journals

Students were required to maintain a record of their experiences relating to this project throughout the entire timeframe of the project. The purpose of this record was so they could document their thought process throughout the project for ease of reference and for tracking their engagement with the creative process. I am referring to this data source as student journals however the students were allowed to choose which format(s) they used to keep their records: music notation, blog, audio/video recording, hand-written journal. Students were free to use multiple formats if it served their purpose. Once again, participant data were collected, de-identified, and shared with me by a third-party RA.

Student Questionnaires

Students completed a questionnaire at the end of the project (see Appendix E). This questionnaire was administered electronically using Microsoft Forms. The purpose of the questionnaire was to give students an opportunity to provide feedback about their experiences with the project. They were also invited to provide suggestions for improving this project for future students. Again, participant data were collected, de-identified, and shared with me by a third-party RA.

Data Analysis Procedures

The qualitative data for this action research study were analyzed using a structured, iterative coding and thematic analysis process consistent with the methodological commitments outlined earlier in this chapter. This process followed Saldaña's (2025) guidelines for pattern coding and Creswell's (2016) recommendations for inductive theme development.

Coding Framework Development

Researcher field notes, student journals, dialogue collected from audio recordings, and student questionnaires were analyzed by coding and categorizing. Creswell (2016) defines coding as “taking transcribed text data and making sense of them” (p. 152). Analysis began with an initial set of deductive codes derived from prompts in the student questionnaire. These codes served as a preliminary analytic scaffold across all data sources. Through repeated reading and comparison of the data, additional inductive codes were developed to capture ideas not represented in the initial list. This process allowed the coding framework to be both systematically generated and firmly grounded in the qualitative evidence. New codes were defined and applied retroactively across all data sets to maintain analytic consistency. This iterative expansion of the codebook allowed the analysis to remain grounded in the data while still aligned with the study’s research questions. A second coder, a professional colleague with graduate studies experience, was engaged as a critical friend for conversations about how I interpreted the data.

Coding Distinctions Across Data Sources

Each data source required distinct analytic considerations. Student journals, due to their open-ended and highly individualized nature, were coded inductively, reflecting the diverse ways students documented their creative processes. Field notes and audio transcripts were coded using the evolving codebook but also required additional codes specific to pedagogical decision-making, teacher reflection, and instructional adjustments observed during the project. Student questionnaires, administered after project completion, provided summative reflective data that were analyzed using a combination of deductive (questionnaire-based) and inductive

coding. Finalized code sets for each data source appear in Tables 2–4, located later in Chapter 4 along with a more detailed description of the coding analysis.

Theme Identification

Following the coding process described above, all coded segments—approximately 30,000 words—were analyzed comparatively to identify recurring patterns across data sets. Codes were categorized into nine themes representing key dimensions of student learning, teacher practice, and contextual features of the creative project. These themes were then aligned with the study’s three research questions:

- **RQ1:** Themes related to pedagogy and enactment of “Creating” in large ensemble contexts (Themes 1–3)
- **RQ2:** Themes connected to the assessment of creative learning using Manitoba’s BDT framework (Themes 4–6)
- **RQ3:** Themes illustrating student learning growth, agency, resilience, and reciprocal teacher learning (Themes 7–9)

Tables 5 and 6 (presented in Chapter 4) outline these themes and their connection to the research questions.

Integration Within the Action Research Framework

This analytic strategy was embedded within the cyclical *look–think–act* structure described earlier. Coding and theme development informed ongoing reflection on instructional choices and provided a systematic means of triangulating data from multiple sources in accordance with the trustworthiness criteria of Lincoln and Guba (1985) as described in the next section. By integrating deductive and inductive analysis, triangulation across data sources, and

progressive refinement of codes and themes, this approach ensured coherence between the study's methodological foundations, data collection processes, and interpretive outcomes.

Validity Criteria

Teacher action research is a unique methodology with its own criteria for ensuring research quality. To ensure the quality of this research study, I employed the criteria suggested by Lincoln and Guba (1985) regarding trustworthiness in naturalistic (qualitative) inquiry and includes the triangulation of data from multiple sources. While there are numerous ways of examining the validity of a study, Stringer and Aragón (2020) assert that trustworthiness criteria are suitable for examining the validity of an action research study. Trustworthiness criteria as defined by Lincoln and Guba (1985) include: credibility, transferability, dependability, and confirmability.

Credibility

I employed three strategies to ensure credibility in this study. Most importantly, credibility was established through prolonged engagement in the field. This project unfolded over five months—the duration of a semester and represented the continuation of ongoing work that I had been doing in my classroom with students prior to this project. Additionally, using field notes and audio recordings I engaged in frequent and persistent observations throughout the duration of the project. Field notes and audio recordings assisted me in reflecting deeply about student engagement in the creative process during this project. Member-checking with students was used to ensure the credibility of this study. During data analysis, a critical friend was consulted about my interpretations. Lastly, triangulation across data sets was employed to further establish credibility in this study.

Transferability

Putman and Rock (2018) assert that generalizability is less important in action research than it may be in other more traditional forms of research. Rather, the intent of action research is to expand understanding of the researcher's daily context, in my case, my classroom. The findings of this study hold promise to be transferable to school contexts of other secondary music educators, and possibly to the contexts of educators in other areas of study who are interested in pursuing creative development with their students. To address the criteria of transferability, I have created rich descriptions of my context to increase the likelihood that these findings can be transferred to other similar school contexts.

Dependability

Lincoln and Guba (1985) suggest that the use of an external audit can help to establish the dependability of a study. The use of an external audit ensures the accuracy and credibility of the research process and findings through a third party who is not directly involved in the research; however, this process is not typically used in the context of graduate student research. For this study, my advisor, committee members, and a colleague have served as critical friends to enhance the dependability of my results.

Confirmability

To ensure the confirmability of the study, steps were taken to ensure that the findings are supported by rich data and ongoing awareness of my researcher positionality was maintained. The primary strategy I employed was frequent member checking throughout the project and sharing findings with my advisor and critical friend to enhance the clarity and accuracy of the data collected. Reflections about decision-making, assumptions, perspective shifts, and

questioning interpretations were included in my field notes. I also aimed to remain self-aware of how my biases could be influencing the research process and interpretation of the findings.

Strengths and Limitations of the Methodology

There are limitations to action research methodology. The findings revealed by the data in this study may be (in-part) attributed to larger, external factors such as cultural practices and/or influences outside the learning space of the classroom. In other words, there are many factors influencing learning that cannot be controlled. Data collected in this action research study is specific to the research context. Action research is not intended to lead to generalizations, but rather to transferability (Stringer & Aragón, 2020). Another limitation of this research design is the limited number of students who agreed to participate in the study. While all grade 9-12 students enrolled in concert band participated in this pedagogical innovation, only 12 students elected to participate in the study. While this sample of students provided rich and varied data to analyze, it must be noted that this is but a small representation of the larger student population that engaged with this project. It is likely that other findings may have been discovered with a larger number of participants.

There are also strengths to using an action research methodology. It is a practical and efficient methodology which allowed me to collect data from my regular classroom setting (McNiff, 2017). The research context enabled me to serve in the dual role of teacher-researcher while deeply engaged in my professional practice with my existing students (Stringer & Aragón, 2020). This action research methodology is also a form of job embedded professional development for teachers, and it enabled me to gain professional knowledge (Stringer & Aragón, 2020). I maintain healthy and positive relationships with my students which positioned them to be honest and open about their experiences during the project and in response to the work of

others. This methodology has led to improved teaching effectiveness and student learning. Lastly, using this methodology I have created practical knowledge which contributes to the profession rather than simply being a knowledge user (McNiff, 2017; Stringer & Aragón, 2020).

Conclusion

The pedagogical innovation implemented in this study has been outlined in detail, including its conceptual grounding, its alignment with the *Grades 9 to 12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015), and its integration across instruction and assessment. The data collection procedures, analytic strategies, and validity criteria used to ensure the trustworthiness of this qualitative action research have also been presented, along with the methodological strengths and limitations inherent to this approach.

As a completed study, the methodology described in this chapter reflects a rigorous, context-embedded inquiry into my own teaching practice. The processes of planning, enactment, observation, and reflection that shaped this work were deeply intertwined with the day-to-day realities of the large ensemble music classroom. Through this sustained engagement, the study generated rich insights into how creative learning experiences can be designed, facilitated, and assessed in ways that honour student agency, promote equitable participation, and support meaningful musical growth.

The issues motivating this research, particularly the long-standing underrepresentation of creative development in many high school music programs, remain pressing. The methodological approach employed here was instrumental in illuminating how creative work can be authentically embedded within a large-ensemble context, and how students respond when given space to explore, imagine, and express themselves musically. The methodological choices detailed in this

chapter made possible the findings that follow. Chapter 4 now turns to an in-depth presentation and discussion of those findings, illustrating how students engaged with the creative process, how their learning evolved, and how my own pedagogical practice was shaped in the process.

Chapter 4: Findings and Discussion

This chapter presents the findings revealed from the various data sets gathered for this action research study. Following the implementation of the pedagogical innovation, all data sets were analysed thoroughly to uncover the results in relation to the stated purpose of this study, namely, to examine, reflect upon, and improve my teaching practice related to the “creating” music component of the *Grades 9 to 12 Music: Manitoba Curriculum Framework* (2015). The findings were then used to address the research questions posed:

1. How can I better enact the “Creating” essential learning component within the context of all four wings of the butterfly contained in the *Grades 9 to 12 Music: Manitoba Curriculum Framework* in the large ensemble-based music courses I instruct?
2. How can I assess (for/of/as) the “Creating” recursive learnings using the dimensions of breadth, depth, and transformation as outlined in Manitoba’s conceptual framework for music learning growth?
3. What impact will my action strategies have on my grade 9-12 students’ learning growth and agency related to creating music?

The data gathered for this study included: student journals, teacher/researcher field notes, transcriptions of class discussions, and student questionnaires. This chapter and the following chapter have been organized to use the results of data analyses to formulate understandings (or answers) for each research question. In this chapter, an explanation of the codes used for analysis will be presented, followed by a summary of thematic analyses of the data sets, all of which reveal findings for RQ1 and RQ3. Findings relating to RQ2 are presented in Chapter 5.

Coding of Data Sets

Before addressing the research questions with evidence from the data, it is necessary to define codes which were used to capture the meaning of the data when analyzed. In keeping with Saldaña's (2025) approach to coding qualitative data for patterns, I began with an initial list of codes derived from the prompts in the student questionnaires. I defined these codes to help code for patterns in the other data sets. Using these initial codes, I then went through each data set thoroughly and applied the codes to units of meaning in the data, adding new codes and definitions as they emerged. As new codes were added, I re-examined each data set to check if they were applicable and coded data as needed.

I coded the student journal data set using an inductive process. The initial codes deduced from the questionnaire were used as a starting point. This data set contained much greater variability in terms of length and content since the journals were open ended. That is, students were directed to document their process in as much detail as they were comfortable. In addition to recording their process in their own way, they were given prompts to respond to periodically over the course of the project to help generate data relating to my research questions. Through this inductive process, new codes emerged and were defined. These new codes were compiled with the initial codes and applied to the journals and the questionnaires.

Next, I applied this qualitative-coding process to my field notes and transcripts of audio recordings of select lessons throughout the project. Much of the content of these data sets aligned with that of the student journals, so the codes used for the student journals applied here as well. However, since these data sets reflect the teacher's perspective, as opposed to the student's perspective, new codes emerged that required definitions as well. These new codes were also applied to the journals and questionnaires to complete the analysis.

Below are tables containing the final list of codes applied to each data source. Tables 1-3 are presented first. Table 1 contains the final list of codes and definitions applied to the student journal data. Table 2 contains the final list of codes and definitions applied to the field notes and audio transcripts which is teacher-focused data. Table 3 contains the final list of codes and definitions applied to the student questionnaire data collected at the end of the project.

Table 2

Data Analysis Codes and Definitions for Student Journals

Code	Definition
Idea Generation	References to what sparks creativity—from specific musical grooves or artists to broader cultural influences.
Technical Challenges	Experiences with technical hurdles (software limitations, crashing programs, hardware issues) and strategies to overcome them.
Growth in Musical Competencies	Reflections on gaining competencies for creating and producing music.
Experimentation, & Creative Process	Instances of exploring new ideas, experimenting with musical elements, and reflecting on the composition process.
Digital Tools & Software Use	Engagement with specific digital platforms (MuseScore, SynthV, NoteFlight) and the role these tools play in composition.
Enjoyment, Engagement, & Motivation	Participants reflected on their enjoyment of the creative process and their desire to continue making music.
Student Agency & Voice	Evidence of students taking ownership of their learning, making autonomous decisions, expressing preferences, and engaging meaningfully with their creative work.
Responding to Music	Statements involving perceiving, analyzing, and/or interpreting music (e.g., identifying a style, expressing a preference or choice for composing/listening, making meaning, emotional response).
Creative Learning Growth & Self-Reflection	Metacognitive observations about the strengths and weaknesses in own creative process, uncertainties, shifts in approach, and/or reflections on learning.

Emotional Expression	Statements about how students express feelings through music or relate emotionally to their work.
Collaboration & Peer Feedback	Comments/reflections on working with others, receiving or giving feedback, and discussions about shared evaluation criteria.
Project & Time Management	Comments/reflections on managing the creative process over time, balancing other responsibilities, and organizing work.
Self-efficacy & Confidence	Expressions of pride, achievement, or growing confidence in one's abilities to create music.
Musical Identity	Students express a shift in their relationship with music, and reflect on how music fits into their lives, connects to self-identity, and cultural belonging.
Composer's Block	Instances of difficulty initiating or sustaining creative work, feeling overwhelmed by choices, or experiencing music writer's (or composer's) block.
Assessment	Comments about the creation, adaptation, or implementation of assessment tools (e.g., criteria, rubrics, self-assessments, signposts framework).

Table 3

Data Analysis Codes and Definitions: Field Notes and Audio Transcripts

Code	Definition
Idea Generation	References to what sparks creativity—from specific musical grooves or artists to broader cultural influences.
Pedagogical Strategy & Instructional Design	Instructional choices made to support creative engagement and music learning (e.g., task design, scaffolding, classroom experiences).
Experimentation, & Creative Process	Instances of exploring new ideas, experimenting with musical elements, and reflecting on the composition process.
Responding to Music	Statements involving perceiving, analyzing, and/or interpreting music (e.g., identifying a style, expressing a preference or choice for composing/listening, making meaning, emotional response).
Technical Challenges	Experiences with technical hurdles (software limitations, crashing programs, hardware issues) and strategies to overcome them.

Teacher Reflection & Emotional Response	Teacher's personal reflections on effectiveness, emotional tone, challenges, and self-awareness in teaching.
Student Agency & Voice	Evidence of students taking ownership of their learning, making autonomous decisions, expressing preferences, and engaging meaningfully with their creative work.
Digital Tools & Software Use	Engagement with specific digital platforms (MuseScore, SynthV, NoteFlight) and the role these tools play in composition.
Growth in Musical Competencies	Reflections on gaining competencies for creating and producing music.
Assessment	Comments about the creation, adaptation, or implementation of assessment tools (e.g., criteria, rubrics, self-assessments, signposts framework).
Resource & Logistical Management	Notes on the logistical or administrative aspects of creative work, including tech issues, file management, and material access.

Table 4*Data Analysis Codes and Definitions for Student Questionnaires*

Code	Definition
Responding to Music	Statements involving perceiving, analyzing, and/or interpreting music (e.g., identifying a style, expressing a preference or choice for composing/listening, making meaning, emotional response).
Enjoyment, Engagement, & Motivation	Participants reflected on their enjoyment of the creative process and their desire to continue making music.
Student Agency & Voice	Evidence of students taking ownership of their learning, making autonomous decisions, expressing preferences, and engaging meaningfully with their creative work.
Experimentation, & Creative Process	Instances of exploring new ideas, experimenting with musical elements, and reflecting on the composition process.
Creative Learning Growth & Self-Reflection	Metacognitive observations about the strengths and weaknesses in own creative process, uncertainties, shifts in approach, and/or reflections on learning.

Growth in Musical Competencies	Reflections on gaining competencies for creating and producing music.
Collaboration & Peer Feedback	Comments/reflections on working with others, receiving or giving feedback, and discussions about shared evaluation criteria.
Emotional Expression	Students discovered how music can communicate emotions and feelings.
Self-efficacy & Confidence	Expressions of pride, achievement, or growing confidence in one's abilities to create music.
Musical Identity	Students express a shift in their relationship with music, and reflect on how music fits into their lives, connects to self-identity, and cultural belonging.
Challenges in the Creative Process	Participants identifying challenges of composing/arranging music and found ways to address creative and technical challenges.

These three coding sets together provided a coding framework which was employed to analyze the data sets in more detail identifying patterns and recurring ideas relating to the research questions. The cumulative total of the student journals, teacher field notes, transcribed audio from class lessons and student questionnaires is considerable—approximately 30,000 words. To make the search for answers to the research questions within these data sets more meaningful and targeted, the data were analyzed thematically and then grouped according to themes. These themes were further refined and collapsed into nine themes. These nine themes are listed in Table 5 along with the codes grouped for each theme. And finally, the themes were grouped to address each of the research questions, appearing below in Table 6.

Table 5

Grouping of Initial Codes to Form Themes

Themes and Grouped Codes	Data Sources
<i>Theme 1: Empowering Student Voice and Creative Autonomy</i>	
• Student Agency & Voice	Journals, Field Notes
• Idea Generation	Journals, Field Notes, Audio Transcripts

• Emotional Expression	Journals
• Musical Identity	Questionnaires
<i>Theme 2: Open-Ended Pedagogy Enables Deeper Engagement</i>	
• Pedagogical Strategy & Instructional Design	Field Notes, Audio Transcripts
• Experimentation & Creative Process	Journals, Field Notes, Audio Transcripts, Questionnaires
• Creative Learning Growth & Self-Reflection	Journals, Questionnaires
• Collaboration & Peer Feedback	Journals, Questionnaire
<i>Theme 3: Scaffolded Support and Technological Guidance Build Capacity</i>	
• Technical Challenges	Journals, Field Notes
• Growth in Musical Competencies	Journals, Questionnaires
• Resource & Logistical Management	Field Notes, Audio Transcripts
<i>Theme 4: Breadth through Diverse Tools, Genres, and Perspectives</i>	
• Digital Tools & Software Use	Journals, Field Notes
• Growth in Musical Competencies	Journals, Questionnaires
• Responding to Music	Journals, Audio Transcripts
• Musical Identity	Journals, Questionnaires
<i>Theme 5: Factors Impacting the Depth of Creative Music Growth</i>	
• Experimentation & Creative Process	Journals, Field Notes, Audio Transcripts
• Creative Learning Growth & Self-Reflection	Journals, Questionnaires
• Assessment	Journals, Field Notes, Audio Transcripts
• Emotional Expression	Journals
• Collaboration & Peer Feedback	Journals, Questionnaire
<i>Theme 6: Flexible and Student-Centered Assessment Practices Promote Student Agency</i>	
• Assessment	Journals, Field Notes, Audio Transcripts
• Student Agency & Voice	Journals, Field Notes, Audio Transcripts, Questionnaires
• Collaboration & Peer Feedback	Journals, Questionnaires
<i>Theme 7: Growth in Musical Identity, Confidence, and Expression</i>	
• Musical Identity	Journals, Questionnaires
• Self-efficacy & Confidence	Journals, Questionnaires
• Emotional Expression	Journals, Questionnaires
• Enjoyment, Engagement & Motivation	Journals, Questionnaires
• Creative Learning Growth & Self-Reflection	Journals, Questionnaires
<i>Theme 8: Creative Problem-Solving and Resilience</i>	
• Technical Challenges	Journals, Field Notes, Audio Transcripts
• Composer's Block	Journals
• Digital Tools & Software Use	Journals, Field Notes, Audio Transcripts

• Project & Time Management	Field Notes
• Collaboration & Peer Feedback	Journals, Questionnaires
<i>Theme 9: Reciprocal Growth of Students and Teacher</i>	
• Teacher Reflection & Emotional Response	Field Notes
• Pedagogical Strategy & Instructional Design	Field Notes, Audio Transcripts

Table 6*Themes Addressing and Research Questions*

Research Questions	Themes Addressing the Question
1. How can I better enact the “Creating” essential learning component within the context of all four wings of the butterfly contained in the Grades 9 to 12 Music: Manitoba Curriculum Framework in the large ensemble-based music courses I instruct?	Theme 1: Empowering Student Voice and Creative Autonomy Theme 2: Open-Ended Pedagogy Enables Deeper Engagement Theme 3: Scaffolded Support and Technological Guidance Build Capacity
2. How can I assess (for/of/as) the “Creating” recursive learnings using the dimensions of breadth, depth, and transformation as outlined in Manitoba’s conceptual framework for music learning growth?	Theme 4: Breadth through Diverse Tools, Genres, and Perspectives Theme 5: Factors Impacting Depth of Creative Music Growth Theme 6: Flexible and Student-Centered Assessment Practices Promote Student Agency
3. What impact will my action strategies have on my grade 9-12 students’ learning growth and agency related to creating music?	Theme 7: Growth in Musical Identity, Confidence, and Expression Theme 8: Creative Problem-Solving and Resilience Theme 9: Reciprocal Growth of Students and Teacher

In the following sections, each of these themes are reported along with supporting evidence from each data set. The themes will be connected to the corresponding research question and to Manitoba’s music curriculum framework.

Reciprocal Growth in Creative Music Learning: Teacher Action Strategies and Student Agency within Open-Ended Pedagogy

Integrating Findings Across Research Questions

Across the data sources, the findings related to RQ1, which asked how the “Creating” essential learning component could be more effectively enacted within ensemble-based music courses, and those related to RQ3, which explored the impact of this project on students’ creative learning growth and their sense of agency, were deeply intertwined. Rather than existing as separate domains of inquiry, the pedagogical strategies that enabled students to engage deeply with the creative process were the same strategies that elicited their most profound engagement and self-reflection. The interrelationship between pedagogical design and student response became especially evident through the emergence of overlapping themes such as open-ended pedagogy, collaboration and peer feedback, creative learning growth, and student agency. Each of these themes reflected a dialogic relationship between teacher intention and student experience; the more flexibility and autonomy students were given in the creative process, the more they demonstrated reflective awareness, emotional investment, and ownership of their learning.

In this way, the three primary themes that emerged in response to RQ1, Theme 1: Empowering Student Voice and Creative Autonomy, Theme 2: Open-Ended Pedagogy Enables Deeper Engagement, and Theme 3: Scaffolded Support and Technological Guidance Build Capacity should not be read as discrete categories, but as interdependent expressions of a dynamic and reciprocal learning environment. Each of these themes is thoroughly entangled with the themes associated with RQ3; Theme 7: Growth in Musical Identity, Confidence, and Expression, Theme 8: Creative Problem-Solving and Resilience, and Theme 9: Reciprocal

Growth of Students and Teacher. As students negotiated their creative choices through collaboration, feedback, and iterative experimentation, they engaged in authentic cycles of reflection that deepened both their musical understanding and their sense of identity as creative musicians; these are core tenants of the theme Growth in Musical Identity, Confidence, and Expression. As students engaged with open-ended creative tasks in class and on their own, they not only explored musical ideas but also encountered and overcame technical and artistic challenges. These moments of creative problem-solving, whether learning and navigating music software, refining compositional choices, or adapting to unexpected outcomes, fostered resilience and deepened their sense of agency—core tenants of the theme Creative Problem Solving and Resilience. Through this process, students began to articulate their evolving musical identities, expressing how music connects to their personal experiences, cultural backgrounds, and future aspirations.

This growth was not limited to students alone. My role as a teacher evolved in response to student needs and insights, shifting from instructor to co-learner and facilitator. Observing students' creative risks, emotional investments, and reflective practices prompted ongoing adaptation in instructional design and assessment strategies. The reciprocal nature of this learning environment, where student exploration informed teacher reflection, created a feedback loop that enriched both teaching and learning, the core tenants of the theme Reciprocal Growth of Students and Teacher. Together, the findings reveal that when creative learning is framed as a process of exploration, supported by flexible pedagogy and scaffolding, students move beyond task completion toward sustained, personally meaningful engagement with creative music-making. This approach aligns with many of Manitoba music curriculum's recursive learnings

(Manitoba Education and Advanced Learning, 2015) and affirms the transformative potential of student-centered creative practice in a large ensemble setting.

The open-ended design of this pedagogical innovation invited students to explore ideas without rigid constraints, which in turn fostered self-directed decision-making and greater intrinsic motivation. As students negotiated their creative choices through collaboration, feedback, and iterative experimentation, they engaged in cycles of reflection that deepened both their musical competencies, their concept of creativity, and their sense of identity as creative musicians. Thus, the findings across RQ1 and RQ3 collectively reveal that when creative learning is framed as a process of exploration rather than prescription, students move beyond task completion toward a sustained, personally meaningful engagement with music-making.

Theme 1: Empowering Student Voice and Creative Autonomy

Across all data sources, students consistently express high levels of engagement, motivation, and satisfaction when granted autonomy over their creative work. This autonomy extended to decisions about format (e.g., using Digital Audio Workspaces [DAWs], instrumental performance, digital composition), inspiration sources (e.g., personal experiences, cultural influences, emotional expression), and assessment methods. As students navigated technical challenges and creative uncertainties, they demonstrated resilience and problem-solving—adapting their approaches, seeking peer feedback, and persisting through setbacks. These experiences not only fostered musical growth but also contributed to the development of their musical identities, as students began to articulate how music connects to their sense of self and future aspirations. As Bolden (2014) suggests, “the key is for *students* to make the musical decisions” (p, 2).

Importantly, the reciprocal nature of this learning environment also supported teacher growth. Observing students' evolving creative processes and responses to open-ended pedagogy prompted ongoing reflection and adaptation in instructional design. The teacher's role shifted from director to facilitator, creating space for student voice and agency to flourish. This instructional shift aligns with the Creating and Responding strands of the Manitoba music curriculum, particularly the following recursive learnings:

- M-CR1: The learner generates ideas from a variety of sources for creating music.
- M-CR2: The learner experiments with, develops and uses ideas for creating music.
- M-R3: The learner analyzes and interprets music experiences.
- M-R4: The learner applies new understandings about music to construct identity and to act in transformative ways. (Manitoba Education and Advanced Learning, 2015, p. 16)

Data coded with Student Agency & Voice, Idea Generation, Emotional Expression, Musical Identity, and Creative Problem-Solving provide compelling evidence that this project promoted not only student autonomy and growth, but also reflective practice and pedagogical evolution.

Autonomy Enables Student Agency. This project allowed students a high level of autonomy in how to proceed at various stages throughout. All students demonstrated creative ownership by selecting their own medium, inspiration, and project format. These choices fostered personal investment and identity exploration, aligning with all the recursive learnings in Manitoba's music curriculum listed above. This emphasis on providing students with meaningful choice aligns with literature that positions agency as a foundational condition for creative music learning (Bolden, 2014; Bolden & DeLuca, 2022; Randles & Webster, 2020). The student journals provided a comprehensive look at how participants were engaging with the creative process and exercising their own voice. Similarly, the researcher's field notes provide the

instructors perspective on how the project was designed to encourage the students to exercise agency. There is ample evidence in this data set which demonstrates how students found inspiration because of having the freedom to choose. Units of data from the student journals and the researcher field notes which capture anything involving students making decisions or expressing preferences were assigned the code Student Agency & Voice. Examples of evidence directly from these datasets are presented in the following paragraphs.

The student journal data set is rich with glimpses into the student decision making process and what they feel is important. Data which provided evidence of students making autonomous decisions and expressing preferences was assigned the code Student Agency & Voice. Student 3 describes how they imagine that rap artist A\$AP Rocky and music producer Clams Casino engaged with the creative process on the track *Sandman* specifically referencing how they appreciated this process and were planning to engage with it themselves: “I think this way of creating music is cool, and a method I will be using for the creative project” (Student 3, Journal Entry, October 23). This is a strong example of a student deciding about their own project based on inspiration from popular musicians. In response to a teacher-provided prompt asking students to reflect on the use of using rubrics for assessment, a student in my class observed that creating your own rubric for a project like this allows a person to engage with questions such as “What do you wish to accomplish? What concepts would you like to include in your project?” (Student 4, Journal Entry, November 3). This response suggests that Student 4 understands that this project demands autonomous decision making and expresses their preference for how the work could be assessed. Student 5 indicates that agency is important in the implementation and assessment of creative work. This idea is evident in their journal entry: “First of all everyone is at a different part of their music understanding and ‘level’ as well as

everyone has their own goals for this project. There are also many variant types of projects because we have creative freedom” (Student 5, Journal Entry, November 9). These journal entries show that this project gave students agency and voice throughout the process by giving them opportunities to make choices regarding how to proceed and input into how creative work can be assessed.

Student Agency & Voice was the code assigned to any data which provided evidence of students taking ownership over their creative process, expressing their own preferences, and engaging in decision-making. In the field notes, entries coded with Student Agency & Voice appeared near the end of the project in response to witnessing students sharing their work and providing feedback for their peers. For example, on January 24, I recorded in my observations that “the feedback portion of the presentations seemed to be useful... to the students” and that “students are astute at making observations about the work of others, which will inform their own choices going forward” (Field notes, January 24). At the same time, I noted that students frequently spoke of deciding to change the path or trajectory of their workflow over the course of the project because of experiencing technical challenges with tools they were using. For instance, several students started with the idea that they wanted to create music in a Digital Audio Workspace (DAW, e.g., BandLab, Garage Band, Sound Trap) and elected to move to digital notation software (e.g., MuseScore, Noteflight, Flat IO) after experiencing challenges and becoming frustrated with learning to use DAW software. The fact that students were able to freely make this type of change reflects the high degree of agency that existed in the project. Moreover, that students had the opportunity to describe their process and express frustrations to their peers is evidence that they were able to give voice to their experiences in the classroom.

Later while I was reviewing recordings of student presentations after they had all been completed, I made further observations about students exercising agency and voice. One student created a work that was a medley of popular movie themes intended to be played by the class. I noted that “[the other] students expressed an interest in attempting to play this work” (Field notes, February 16) and that the student who created this work was excited and expressed a desire to refine their work for this purpose. In the field notes, I also quoted another student from a recording of their presentation: “I actually had fun doing this, but I just get really frustrated sometimes” (Field notes, February 16). In expressing their feelings of enjoyment and frustration during this project, the student was able to give voice to their experience and share it with their teacher and their peers in a safe environment. These examples provide evidence that the students were engaged in this project and that they were exercising agency by choosing what they created. Moreover, they were giving voice to their experiences engaging with the creative process and their responses to the work of others.

The evidence presented in this section also speaks directly to the impact of this pedagogical innovation on students’ creative learning growth and agency, as explored in RQ3. As students engaged with the creative process, they encountered technical and artistic challenges that required persistence, adaptability, and problem-solving, skills that were cultivated through iterative experimentation and peer collaboration. These experiences not only strengthened their musical competencies but also deepened their understanding of music as a form of personal expression, contributing to the development of their musical identities. Students began to articulate how music connects to their lived experiences, cultural backgrounds, and aspirations, revealing a transformation in how they see themselves as musicians. This finding mirrors research linking agency in music learning to the development of musical identity (DeNora, 2000,

2016; Hickey, 2012; O'Neill, 2016; Wiggins, 2015). Simultaneously, my role as a teacher evolved in response to student needs. Observing students' creative risks and reflective practices prompted ongoing adaptation in instructional design, creating a reciprocal learning environment where both students and teacher grew in tandem. This dynamic affirms the transformative potential of student-centered creative practice and aligns with the recursive learnings M–CR2, M–R3, and M–R4 in Manitoba's music curriculum framework (Manitoba Education and Advanced Learning, 2015).

Idea Generation: A Key Element to Creating. Idea Generation was used to code data which referenced any kind of inspiration which sparked an idea. Early in the project, Student 1 was inspired by the work of Bernard Purdie, a well-known studio drummer who coined a drum groove known as the Purdie shuffle. They wrote that they “could not stop listening to it because it's a very catchy and impressive groove” (Student 1, Journal Entry, October 1). Student 1 also wrote about their experience of the sudden onset of ideas - “As I was eating dinner today a lightbulb hit my head. Perhaps I can make a video where I do a drum cover of my song.” (Student 1 Journal Entry, November 14). Journal entries from Student 3 were rich in content regarding idea generation, indicating that they take inspiration from a variety of sources that can lead them into engaging with the creative process.

Often, it is either my curiosity of how I can recreate a cool sound I heard with my instrument, or it's an idea that I come up with just as a chord progression or melodic idea that I put in Musescore that gets me playing and making music. I have a text document kept on my computer that has a list of ideas involving music that I'd like to eventually try and execute, so I'll mostly be looking at that document. I also listen to a lot of orchestral

music and listening to them will also give me ideas to start making my creative project. (Student 3, Journal Entry, October 17)

This student is clearly well positioned to engage with the creative process, as they are open to inspiration from a range of sources, even tracking and recording ideas in a text document for future reference. They are not only open to inspiration but actively seeking it in places that they expect to find it. Student 5's inventiveness was sparked by a video they found showing Chris Martin, of the band Coldplay, relating how he engaged with the creative process in writing the song *Yellow*, beginning by experimenting with chords on the guitar, leading to thoughts of Neil Young, then to contemplation of 'the stars', and finally to the colour yellow. Upon reflection, this high school musician (Student 5, Journal Entry, November 6) wrote "When thinking about a starting point for my creative project, this is a perfect example of how you should just start to mess with things, try something out and maybe you'll find something you like and want to explore further." In contrast, another (Student 7, Journal Entry, October 17) was inspired by counterpoint and music of the Western classical tradition and wrote that "hearing counterpoints executed perfectly is extremely satisfying to listen to" and that composers such as J. S. Bach "demonstrate[s] wonderful emotions with intricate contrapuntal writing." A different participant (Student 8, Journal Entry, September 20) acknowledged the need for contrasting ideas to make creative work more interesting: "Can't have just one melody play all the time, can it?" These examples all provide evidence that student participants were able to engage in idea generation from a variety of sources because the project afforded them the opportunity to exercise agency in how to proceed, connecting to outcomes M-CR1, M-CR2, and M-R4. This evidence also aligns strongly the RQ3 theme, Growth in Music Identity, Confidence, and Expression.

Strategies intended to facilitate the generation of ideas were an integral part of this pedagogical innovation in alignment with literature on music composition pedagogy (Bolden, 2023; Hickey, 2012; Randles & Stringham, 2013; Stringham, 2010). Consequently, Idea Generation was used to code any field notes relating to these strategies. For example, one of the first lessons given early in the project on September 9 included a plug-in composition task involving the whole class. This group composition learning experience, adapted from the work of Canadian music education scholar Doug Friesen (2013), involved mapping two measures of common time on the white board as a blank canvas and having students choose two or three locations within that space to place a sound. Students were directed to choose whatever sound(s) they wanted to make/play at each location. A beat (drum track) was then started and played continuously, and students gradually introduced their chosen sounds into the soundscape and repeated them as many times as they wanted to. Once they had played their sounds as many times as they wanted to, they could stop and wait for all the others to stop. Once all sounds had stopped then the beat could stop, and the piece would be over. The whole composing encounter took place in a short time (< 10 minutes) and resulted in a group composition that was unique. This group composition involved making small musical decisions including what to play, when to play, and how many times to play. Also, this low-stakes experience afforded all students a chance to participate in the creation and performance of a unique group composition through combining their musical choices with those of their peers. Placing an accessible music composing exercise such as this one early in the project helped students to experience and reflect on ways that they could generate musical ideas and get started with creating their own music. This practice mirrors suggestions in the literature for music scaffolding music composition in classroom settings (Bolden, 2023; Hickey, 2012; Koops, 2013; Randles, 2019).

My field notes describe another class composition experience which was implemented on October 3 to provide students with a different opportunity to generate musical ideas in a structured environment. This music learning encounter took longer (~30 minutes) but was still contained within one class period. Using the framework of a major scale (which all students were already familiar with), students were asked to select a random sequence of notes within the scale by calling out numbers and I wrote down the first 5 numbers I heard them say. I arbitrarily added one more number to create a 6-note sequence (6-3-2-5-7-1). Then, through open discussion, the class was directed to choose a time signature (4/4), a length (8 beats), a tempo (124 BPM), and a scale (concert B flat major). Next, students were tasked to create a rhythm (no pitch) in 4/4 time at 124 BPM using any note/rest values that fit within the allotted 8 beats. They were given five minutes to work on a rhythm alone or with others. Students were then given the opportunity to share their created rhythm with the class. After hearing some student samples, they were directed to select three rhythms from those that had been shared. Next, they were directed to choose one of these rhythms and apply the notes from the sequence to it, repeating any notes they wish as needed to use all the rhythmic values in their selection. Again, the students were given time in class (~8 minutes) to complete this task. As a final step, students were invited to share the result of their work by playing it for the class. After hearing some samples of student creations, I facilitated a discussion on how the selection of many parameters in music, such as time signature, tempo, and scale, are exploratory decisions that can be made or changed at any time during the creative process. This collaborative learning task was designed to provide a meaningful access point for students to engage with making decisions to facilitate generating musical ideas in a safe way. The instructional strategies presented in the last two paragraphs also align with the RQ3 themes Creative Problem-Solving and Resilience and Reciprocal Growth of

Students and Teacher. Both composition lessons presented opportunities for students to explore creative problem solving in a scaffolded setting and provided me with a chance to revise my instructional sequence based on student response and engagement.

There is further evidence from my field notes supporting how this project was designed to encourage students to generate ideas and explore the creative process. As mentioned in the previous section, journal prompts were occasionally provided for the students. Some of these prompts were intended to guide student reflections regarding the generation of ideas for creating music. For example, on October 15 students were given the prompt “What inspires you?” This prompt was related to a class discussion about inspiration and its connection to the generation of ideas, musical, and otherwise. The intention was to give students an opportunity to reflect on what they find to be inspiring and to recognize that they can look to their sources of inspiration for the spark to generate musical ideas. Furthermore, on October 23, I facilitated a class discussion about the starting point for compositions. In other words, when considering an existing piece of music as a listener/performer, what can we learn from considering where the composer may have started in creating the piece. The discussion included some analysis of repertoire that the band was currently working on. My notes indicate that this discussion wasn’t going over very well with the students and that they were not especially engaged that morning. Wanting to salvage the opportunity as well as moving on to other activities, I gave the students a journal prompt intended to spark reflection on the generation of ideas:

Think of a piece of music that we use in band, or any song that you know. Describe what you think may have been a starting point for the person who created the piece. Can this help you find a starting point for your own work? (Field notes, October 23)

My own reflection about this discussion in class in conjunction with the prompt posed to students indicates that I was actively seeking ways to continue to engage students in critical reflection about idea generation and what it means for them. It also indicates that I was adapting my approach as necessary to engage students in such reflective thinking in real-time response to what was taking place in the classroom that day. Evidence from my field notes shows that this project caused students to think about and engage in idea generation through specific activities in class as well as class discussion and guided reflection in their journals, aligning with outcomes M-CR1, M-CR2, M-R3, and M-4 (Manitoba Education and Advanced Learning, 2015). The examples in this paragraph are also compelling evidence of the reciprocal growth I was experiencing along with my students (Theme 9).

Over the course of the project, I audio recorded several lessons and class discussions relating to the pedagogical innovation I was implementing using my iPhone. A total of seven lessons were recorded, four in October near the beginning of the project, and three in January toward the end of the project. Analysis of these transcriptions confirmed that I was facilitating class discussions around creativity and engaging with the creative process through this project in addition to providing direction to the students which empowered student agency. Excerpts from the audio transcriptions relating to the generation of ideas for creative work were coded with Idea Generation. Perhaps not surprisingly, there were considerable instances in these transcriptions which were coded with more than one code. For example, in the early days of the project, I facilitated a lesson which included reference to curriculum language. To give students context on what this project was about and make ties to curricular expectations, I wanted to highlight some of the recursive learnings that are foundational to the design of the project. In my own words, “I don't spend a lot of time talking about and showing curriculum to students,

because it reads kind of boring, dry, and impersonal-like” (Audio Transcript, October 4, Excerpt 14). I went on to discuss recursive learnings M-CR1, the learner generates ideas, and M-CR2, the learner experiments with, develops and uses ideas for creating music (Manitoba Education and Advanced Learning, 2015, p. 16). This discussion was followed with a description of the cycle of idea generation and experimentation using language to explain the concept in ways more accessible for the students:

Ok, cycles of experimentation and idea generation. Come up with an idea. Try some stuff with that idea. Go back and change the idea. Come up with another idea based on [those changes]. Try some ideas back and forth. You see this is the cycle of idea generation, testing out the ideas, and elaborating. (Audio Transcript, October 4, excerpts 17-19).

This quote demonstrates my attempt to engage the students in critical reflection on what it means to create through cycles of idea generation and exploration, connecting the Geneplore model (Finke et al., 1996) with curricular language (Manitoba Education and Advanced Learning, 2015). One week later, on October 10, I described to the students how creative people tend to retain ideas for future consideration (Audio Transcription, Excerpts 24-32). That is, they will tend to engage in ideation, selecting a few ideas to work with and retaining the rest of the ideas in a storehouse for later access. In my words, “creative people [are] able to select ideas, but not throw away the ones that [they] don't choose” (Audio Transcript, October 10, Excerpt 32). These examples, coded with both Idea Generation and Experimentation & Creative Process, provide evidence that these lessons were designed to spark student imagination and interest as well as getting them thinking about creating in the context of music.

In the previous sections regarding evidence found in student journals and field notes, evidence was presented demonstrating inspiration as a source for idea generation. Lessons

recorded on October 15, and October 17 also contain evidence relating to inspiration. On October 15, I invited the students to reflect on their personal inspiration: “what are some things that you personally find inspiring in a musical way?” followed by “What are things that you have encountered in the past, or that you can predict might be inspiring for you or things right, whether it's recent or far back in your memory” (Audio Transcript, October 15, Excerpts 5-6). Students were then given time to reflect on these questions and discuss with their peers. Following this time of reflection and discussion, students were invited to share their sources of inspiration. These responses were plentiful and widely varied, with students citing sources of inspiration such as live recordings containing variations made by the performing artist, the dynamic energy of Freddie Mercury of Queen performing *Radio Ga Ga* during Live Aid in 1985, the beautiful tone of a favorite instrumentalist, an inspiring middle years music teacher who made students feel welcome and gave them space to come into the music room to ‘jam’ during the lunch hour, and many more. These examples, coded with Idea Generation and Student Agency & Voice provide evidence that this project provided opportunities for students to reflect on their own personal inspirations as source for generating ideas for creating music. This evidence also connects with the RQ3 theme Growth in Musical Identity, Confidence, and Expression since it provides examples of student reflection on their personal connections with music.

This project was designed to maximize student agency through engaging with the creative process. The lesson given on October 4 was when the class reviewed expectations and established parameters to confirm, in general terms, what the students needed to do. In this lesson, it was made clear to the students that they would need to exercise agency by making musical decisions throughout this project. We began the lesson with students generating

suggestions about possible forms that their final music project could take. The students came up with ideas such as: “you could perform something live, as long as it is something you created or helped to create”, “you could make a video involving music”, and “you could compose a piece of music from scratch” (Audio Transcript, October 4a, Excerpts 7-9). I then posed two questions to the students to discuss among themselves: “What does it mean to be creative?” and “What does it mean to be creative with music?” (Audio Transcript, October 4a, Excerpts 12-13). Following the time allotted for discussion, students were invited to share their responses to the questions. While there are no definitive answers here, all student responses are valid. What is most important is that the students were voicing their perspectives in the discussion. Moreover, their ideas were included and shared to create a common access point to understanding the concept of creativity as it related to what we were talking about. The reciprocal nature of this discussion speaks to the impact of this project on student identity and engagement as creative musicians as they were able to negotiate their own position in relation to the concept of creativity through the class discussion.

Another example of encouraging students to lend their own understandings to discussions was captured nearer the end of the project. In January, just a few weeks from the time when students would share their final products with the class, we were discussing the terms BDT in the context of learning and assessment. Before inviting them into small group discussions on the topic, I reminded them that “I’m not looking for right or wrong answers here, because this is about your understanding of these concepts” (Audio Transcript, January 10, Excerpt 10). These examples are evidence of opportunities provided to the students to share their own thoughts and understandings of topics relating to creativity and learning and were coded with Student Agency & Voice.

These examples from the audio transcriptions provide evidence which further supports that the design of this pedagogical innovation provided opportunities and encouragement for students to think about sources of inspiration, to reflect on idea generation and experimentation as it relates to the creative process, and to exercise agency over their work and participation in the project. This evidence aligns with evidence presented from the student journals and from the field notes, and correlates directly with recursive learnings M–CR1 (idea generation), M–CR2 (development through exploration), M–R3 (analyses and interprets music experiences), and M–R4 (constructing music identity and act with agency) from the Manitoba music curriculum (Manitoba Education and Advanced Learning, 2015).

Taken together, the evidence from student journals, field notes, and audio transcripts reveals that this pedagogical innovation not only supported students in generating musical ideas but also fostered deeper personal and artistic growth. As students engaged with the creative process, they encountered moments of uncertainty, technical difficulty, and artistic challenge, each of which became an opportunity for creative problem-solving and resilience. These experiences prompted students to reflect on their evolving musical identities, often expressing how music connects to their emotions, cultural backgrounds, and aspirations. Importantly, this growth was mirrored in my own journey. Observing students' responses to open-ended tasks and their capacity to navigate complexity led to ongoing adjustments in instructional design and classroom facilitation. This reciprocal learning relationship, where student agency informed teacher reflection, underscores the transformative potential of student-centered creative practice and directly addresses RQ3 by demonstrating how action strategies can cultivate both student growth and teacher development in ensemble-based music education.

Student Voice Through Emotional Expression. Over the course of the creative project, students discovered how music can communicate emotions and feelings. Data related to the discovery of the connection between emotions and music was coded with Emotional Expression. All data coded with Emotional Expression and relating to the theme of Student Voice and Creative Autonomy was contained in the Student Journals. The evidence in this section also aligns closely with the RQ3 theme Growth in Musical Identity, Confidence, and Expression.

One of the participants did not engage deeply with the journaling portion of this project, evidenced by the fact that they only created one journal entry quite early in the project in response to a given journal prompt – “What inspires you to make music?” However, this single journal entry provides a window to this student’s strong emotional connection to music. In this entry Student 2 mentions multiple sources of creative inspiration, including their parents, music from their childhood (punk and glam metal), visual art, band class, choir, and personal relationships. All these sources contribute to a strong emotional connection to music and a desire to create – in their words, “it should inspire me to keep going and be something more... [and] there's a rhythm for me to follow so I can be my best self” (Student 2, Journal Entry, no date). Similarly, Student 12 also only produced one journal entry, but they wrote in a way that is laden with emotional motivation for making music. This student made connections to their desire to have a family in the future and how making music helps them to practice setting goals and working to attain them, indicating deep emotional motivation behind their music-making. Another student participant was more direct in writing that they are “inspired to make music because it’s a way to express emotions and tell a story without words” and that “whether it’s a song that brings back memories or just a melody that sounds interesting, music has a way of connecting people” (Student 9, Journal Entry, no date). Student 9 also divulged that “hearing a

great performance or a unique arrangement makes me want to create something of my own” and reported that they could “use emotions or personal experiences as inspiration when creating music” (Student 9, Journal Entry, no date). Evidence from the student journals coded with Emotional Expression indicates that students find the expressive and communicative nature of music to be inspiring and compels them to make decisions about how they can engage with the creative process in making music. This evidence also demonstrates that the emphasis on reflection in the design of this project lends to the growth of participants’ self-concept of musical identity.

Agency Strengthens Musical Identity. At the conclusion of the project, students were asked to complete a questionnaire (Appendix E) which was designed to provide one last opportunity for critical reflection on their experience completing this creative work and to generate meaningful data to support this research. The student responses provide compelling evidence that this project fostered creative development within the context of a band program, particularly by supporting students in developing their musical identities and building resilience through creative problem-solving. Many students described how the freedom to explore and create using their own ideas helped them discover new aspects of themselves as musicians; what they value, how they express emotion through music, and how their cultural and personal experiences shape their creative choices. Responses connecting to student agency and voice were coded with Musical Identity. These responses align with the RQ1 theme Empowering Student Voice and Creative Autonomy, and with the RQ3 themes Growth in Musical Identity, Confidence, and Expression and Creative Problem-Solving and Resilience. Supporting evidence from the student questionnaires will be presented in the following paragraphs.

The first question of the questionnaire was an open-ended invitation to reflect on growth: “How has your experience with this project increased your overall growth as a creative student musician? What did you learn about yourself as a student musician?” While participant responses to this question were varied, four of them were coded with Enjoyment, Engagement, & Motivation and/or Musical Identity. One participant wrote “This creative project allow[ed] me to fulfill some musical desires that I would not have otherwise realized” (Student 3, Questionnaire, Question 1), indicating that this student was able to exercise agency in satisfying their personal musical interests. Another student observed that the project “reinforced my ability to work independently and trust my musical instincts” (Student 9, Questionnaire, Question 1), implying that the student felt that they were encouraged to work on their own and make their own choices with respect to their project. Another student wrote of their experience collaborating with others, noting that they “learned how to work with other people's ideas so we can find a good middle ground” (Student 10, Questionnaire, Question 1). Collaboration on creative work requires agency, and this quote is an example of this student expressing growth in this area. One participant felt so empowered by this project that they expressed the desire to create music in the future: “I’ve decided that I would like to continue trying to create my own work and continue to try new things and grow as a musician” (Student 11, Questionnaire, Question 1). These examples from Question 1 of the questionnaire all provide evidence of students expressing thoughts around the importance of agency in this project.

Question 3 of the questionnaire was specifically about student enjoyment during the project; “What did you enjoy most while working on this project?” Perhaps not surprisingly, all responses to this question were coded with Enjoyment, Engagement, & Motivation, and ten of twelve responses were also coded with Musical Identity. However, three of the responses to this

question can be related directly to the agency and autonomy that the project provided for the students. One music student wrote, “I enjoyed messing around in MuseScore for the first time and the flexibility I had around this entire project” (Student 1, Questionnaire, Question 3). This student prioritized flexibility, as in the ability to make their own decisions, as a key source of enjoyment about the project. Another wrote “I enjoyed actually creating [my project] once I had my ideas and plans laid out. It was fun to turn my ideas into the real thing” (Student 4, Questionnaire, Question 3). In their own way, this student found enjoyment in the process of generating ideas and revising them into a product they were satisfied with. This is agency in action. The participant response below was clear, articulate, and centered on agency throughout the process:

I really enjoyed the freedom to create something unique and personal. Having the chance to experiment with different musical elements, whether it was composing, arranging, or performing, made the process exciting. I also liked collaborating with others and seeing how different perspectives could enhance my ideas. (Student 9, Questionnaire, Question 3)

Student 9 refers to freedom, experimentation, and collaboration as significant sources of enjoyment while completing this project and implying that they were able to exercise agency throughout the project. The examples cited in this paragraph clearly demonstrate that students felt empowered to work autonomously and valued the fact that they could make their own decisions while completing this project.

The analysis of student responses to the questionnaire yielded compelling evidence that this project gave students meaningful and impacting opportunities to exercise agency and express themselves in a variety of ways. This evidence shows that empowering student voice and

autonomy within creative projects can cultivate not only technical and musical competencies but also deeper personal connections to music, motivation for continued creative exploration, and confidence in individual artistic identities. These findings align directly with the recursive learnings M–CR2 (development through exploration), M-CR3 (revises, refines, and shares musical ideas), and M-R4 (constructing music identity and act with agency) from Manitoba’s curriculum framework (Manitoba Education and Advanced Learning, 2015), as students were not only participating in creative tasks but also actively shaping the direction, meaning, and ownership of their musical experiences.

There is significant evidence across all datasets indicating that participants had multiple and varied opportunities to make decisions and exercise agency during this project. Student voice is evident in the freedom to generate ideas, choose their own source of inspiration, make decisions on how to proceed with their project, how their work should be assessed, and make connections to different aspects of the emotional nature of music. These moments of self-directed decision-making reflect what Green et al. (2024) identify as creativity, regardless of outcome; “deliberate deployment of internally directed attention with the constraints of generative goal state parameters” (p. 558). The data also show that participants experienced development of their sense of musical identity through exercising agency and creative autonomy throughout the project. This evidence supports the claim that completing this project gave students valuable and meaningful opportunities to engage with outcomes M-CR1, M-CR2, M-R3, and M-R4 the Creating and Responding wings of the Manitoba music curriculum framework (2015).

Importantly, the forms of agency demonstrated by students in this project extended beyond individual decision-making to include culturally situated musical expression and access

to diverse creative pathways. Students drew on varied genres, sound sources, digital tools, and multimodal forms of documentation, demonstrating how this pedagogical innovation is subtly disrupting the Eurocentric norms that often shape large ensemble learning. Scholars have critiqued the conservatory foundations of traditional band programs for privileging Western art music practices and marginalizing alternative musical identities (González Ben, 2023; Hess, 2021, 2023). In contrast, the open, multimodal design of this project aligns with Nazario's (2022) call for participatory creative environments that are accessible, culturally responsive, and grounded in student meaning-making. In this way, student voice functioned not only as a pedagogical strategy but as a means of equity-oriented curriculum enactment, closely aligned with Manitoba's global competencies of creativity, communication, and citizenship (Government of Manitoba, n.d.).

This section presented evidence from all data sources supporting the claim that students consistently expressed high levels of engagement, motivation, and satisfaction when given autonomy over their creative work. While large ensemble pedagogical settings are frequently critiqued as limiting student agency, the findings of this study suggest that pedagogical design—not ensemble format alone—plays a decisive role in shaping student autonomy. By providing students with the freedom to make decisions about their creative work, the project fostered high levels of engagement, motivation, and satisfaction. The evidence from student journals, field notes, and questionnaires underscores the importance of allowing students to explore their own ideas, draw inspiration from various sources, and express their musical identities. Providing students with agency functioned as a catalyst for deeper engagement with the creative process, reinforcing research that frames student choice as integral to learning growth rather than merely engagement (Bolden & DeLuca, 2022). Allowing students this autonomy aligns with the

presence of student agency and idea generation in recursive learnings M-CR1, M-CR2, M-CR3, and M-R4 in the Creating and Responding strands of the Manitoba music curriculum (Manitoba Education and Advanced Learning, 2015). This approach not only aligns with the Manitoba music curriculum's emphasis on student agency and idea generation but also cultivates a deeper connection to music and enhances students' problem-solving skills. Students were more likely to persist through challenges and articulate the meaning of their work when they had ownership over its direction.

Theme 2: Open-Ended Pedagogy Enables Deeper Engagement

At its core, this pedagogical innovation is rooted in open-ended pedagogy. It is made clear to the students from the very beginning of the project that they have maximum autonomy in how they choose to engage with creating music and what form their creation(s) will take. These design features reflect what music education scholars describe as open-ended tasks, in which constraints support exploration without predetermining musical outcomes, allowing students to engage meaningfully with uncertainty and possibility (Beghetto, 2016; Hickey, 2012; Kristofferson, 2016). Hickey (2012) emphasizes that when students are given open-ended composition tasks, they “will be better able to exercise their musical creativity and natural musical curiosity” (p. 16). Analysis of data suggests that the open-ended nature of the project allowed participants to engage at a deeper level than they may have attained with closed, pre-determined criteria for output. The previous section demonstrated that across all data sources, students consistently expressed high levels of engagement, motivation, and satisfaction while working through this project because of the autonomy they had over their creative work. The data also shows that these high levels of engagement, motivation, and satisfaction were also enabled by the open-ended pedagogy that is the foundation for the project. This open-ended

pedagogy aligns with the Creating, Connecting, and Responding strands of the Manitoba music curriculum (Manitoba Education and Advanced Learning, 2015), with emphasis on the following recursive learnings:

- M-CR1: The learner generates ideas from a variety of sources for creating music.
- M-CR2: The learner experiments with, develops and uses ideas for creating music.
- M-CR3: The learner revises, refines, and shares music ideas and creative work.
- M-C3: The learner develops understandings about the roles, purposes, and meanings of music.
- M-R4: The learner applies new understandings about music to construct identity and to act in transformative ways. (p. 16)

Data coded with the following codes was found to provide evidence that this project enables deeper engagement through open-ended pedagogy: Pedagogical Strategy & Instructional Design, Experimentation & Creative Process, Creative Learning Growth & Self-Reflection, and Collaboration & Peer Feedback. The following sections will present evidence from each of the data sets coded with these codes, aligning with the RQ1 theme, Open-Ended Pedagogy Supports Deeper Engagement. Much of the evidence in these sections also aligns strongly with the RQ3 themes: Growth in Musical Identity, Creative Problem-Solving and Resiliency, and Reciprocal Growth of Students and Teacher.

Pedagogical Design: Open-Ended with Intention. The code Pedagogical Strategy & Instructional Design was assigned to units of data in the Field Notes and Audio Transcripts that indicated instructional choices made by the teacher to support creative engagement and music learning. Evidence from both Field Notes and Audio Transcripts supporting the open-ended pedagogy employed in the design of this project will be presented in the following section.

Scaffolding is an important element of the design of this pedagogical innovation. While students ultimately must make their own choices, it is well documented that providing students with both structured learning experiences and open learning experiences can help them to develop their skills and confidence for making music. Most of the grade 9 students in band had little or no previous experience creating their own music. On October 3, I taught a lesson with the Grade 9 Band involving whole class music composition, which I wrote about afterwards in my field notes. This music composition learning experience was described in the previous section relating to student agency. However, this learning experience also serves as an example of how structure can support open-ended decision making through the intentional use of constraints. This design of this open-ended task allowed multiple creative pathways while giving students ownership of decisions. Further examples of scaffolded in-class music learning experiences took place on October 16 and November 14. These experiences are described in detail in the next section as they also involve Experimentation & Creative Process.

On October 4, I audio recorded the lesson given to band students in grades 10-12 in which the project was formally introduced. Right from the beginning of the lesson, I was prompting the students to participate in the discussion to help define the outcomes for the project: “in your understanding as you sit here right now, what do you need to do [for this project]?” (Audio Transcript, October 4, Excerpt 1). In this lesson, I prompted the students to discuss the topic of creativity amongst themselves: “what does it mean to be creative? Then once we've decided what it means to be creative, what does it mean to be creative with music?” (Audio Transcript, October 4, Excerpt 13). I also reinforced my belief that following predetermined steps to generate a predictable outcome is NOT a creative action: “you're waiting for somebody to give you some predetermined criteria. And then you're just going to execute what's

in the predetermined criteria. I'm not sure how creative that actually is" (Audio Transcript, October 4 Excerpt 14). It was my intent throughout this project to avoid prescribing criteria for their creative output.

The data coded under Pedagogical Strategy & Instructional Design demonstrates how intentional scaffolding and open-ended design worked in tandem to promote deeper student engagement and authentic creative inquiry. The lessons described here reflect a pedagogical stance that values process over product, where structure serves as a catalyst rather than a constraint. By framing creativity as a personally defined and collaboratively explored endeavor, the instructional design encouraged students to question, take risks, and negotiate their own artistic decisions. This balance of guidance and autonomy not only supported students' developing musical competencies but also fostered a sense of ownership and investment in their learning.

Engagement Through Experimentation. A key tenant of creative work is the cyclical and iterative process of generating ideas and then working to refine them (Finke et al., 1996). This tenant aligns with Webster's (1989, 2016) creative thinking model emphasizing oscillation between convergent and divergent thinking. Experimentation & Creative Process was assigned to any data which showed instances of exploring new ideas, experimenting with musical elements, and reflecting on the composition process. All datasets contain numerous data units coded with this code. Many of these data units illustrate the deep engagement with creativity that participants were able to experience due to the open-ended pedagogy that this project is based upon. The following section presents evidence from all data sets which supports the correlation between data coded with Experimentation & Creative Process and RQ1 Theme 2: Open-Ended Pedagogy Enables Deeper Engagement. Due to the reflective process inherent to planning and

implementing this project, this evidence also aligns with the RQ3 Theme 9: Reciprocal Growth of Students and Teacher.

Freedom is a key element in the open-ended design of this project, but initial flights of creativity can be challenging for music students. To address this challenge, the design of this pedagogical innovation included assigning students smaller structured tasks to provide them with opportunities for making musical decisions in controlled settings with limited parameters. The design also included considerable freedom in making choices on how to proceed with their projects. Analysis of the field notes and audio transcripts recorded during the project revealed that through scaffolded compositional tasks combined with the freedom to create a project completely of their own design, students engaged deeply with the creative process by generating, developing, and refining musical ideas. They moved through recursive cycles of experimentation and revision, aligning with the recursive learnings M–CR1 (idea generation), M–CR2 (development through exploration), M–CR3 (revises, refines, and shares musical ideas), and M–R4 (constructing music identity and act with agency) from the Manitoba music curriculum (Manitoba Education and Advanced Learning, 2015). As demonstrated in the previous section, both data sets indicate that this project was open-ended in design, including short-term in-class experiences which support the over-arching goals for creative output. Embedded within the open-ended design are opportunities for students to experiment with ideas in class. For example, the previously described class composition lesson from October 3, in addition to engaging students in generating ideas, provided an opportunity for students to experiment with the creative process in a structured setting. Another example described in the field notes took place on October 16. The class had been prompted to ponder the question “What makes (defines) a *complete* piece of music?” (Field Notes, October 16). Further to the discussion which followed

this prompt, the students were assigned a task to compose a *complete* piece of music in class. They were directed to organize themselves into groups of 2-4 students and create a *complete* piece of music using only sounds that they could produce with their bodies. Students had only 25 minutes to create their piece and then each group was invited to present their work to the class. This learning experience provided an opportunity for students to engage in experimentation with the creative process in a collaborative setting as well as share their work with others, give, and receive feedback on their work. In class the next day, I facilitated a discussion to re-visit and strengthen the students' concept of creativity, and to draw their attention to the factor of *time* in the creative process. I prompted them to consider how their approach might change if they were given more time to develop their ideas: "Do you think you'd come up with something that had more involvement, perhaps better organized or used different combinations, just because you had more time?" (Audio Transcript, October 17, Excerpt 40). This encounter with composing aligns with outcomes M-CR2 and M-CR3 (Manitoba Education and Advanced Learning, 2015).

Another example described in the field notes is called the 3-Note/3-Rhythm Challenge that took place on November 14. This in-class task that I designed was a variation on the October 3 composition exercise. As a class, students chose a scale and a random selection of three notes from that scale. Then they were asked to create short rhythms, three of which were selected and recorded on the whiteboard. Students were then given 10 minutes to create a melodic segment of no longer than eight measures using only the selected three notes and combinations of the three rhythms on the whiteboard, working individually or in groups up to four students. After 10 minutes, students were invited to share their creations with the class. Once again, this invitation provided students with an opportunity to experiment with creating music in a safe, structured setting in the classroom and it aligns with outcomes M-CR2 and M-CR3 (Manitoba Education

and Advanced Learning, 2015). It is significant to note that the additional complexity of this challenge when compared with the one assigned on October 3 illustrates a scaffolded approach, inviting students to engage at increasing levels of complexity as the project progressed. This evidence also illustrates a reciprocal approach to instruction in which next lessons were planned based on how students responded initially.

The above evidence drawn from my field notes and audio transcripts demonstrates how this pedagogical innovation was designed to facilitate student experimentation with the creative process through sequential, structured in-class learning experiences. These music composing experiences in conjunction with class discussions and journal prompts served to build students' competencies for musical experimentation and creation which they could then apply to their own creative work. Such teaching and learning sequences connect strongly to recursive learnings M-CR1, M-CR2, M-CR3, and M-R4 (Manitoba Education and Advanced Learning, 2015) and align with scholarship (Hickey, 2012; Kristofferson, 2016).

There is also compelling evidence in the student journals and questionnaires indicating that the open-ended nature of this project enabled them to engage deeply with the creative process. In their own words, in some cases responding to prompts and in other cases simply recording their thoughts and experiences, students identified that experimentation led them to deeper engagement with their work. Inevitably, evidence from student journals and questionnaires also illustrates how students perceived their own growth in competence and confidence with making music, all the while developing their sense of musical identity. Student 4 recognized that "part of the point of this creative project was so I can expand and experiment with my work" and that their plan was to "play around with the shuffle I already know" (Student

1, Journal Entry, November 5). Another student wrote about strategies that they use to generate, collect, and organize musical ideas that they intend to experiment with:

Often times, it is either my curiosity of how I can recreate a cool sound I heard with my instrument, or it's an idea that I come up with just as a chord progression or melodic idea that I put in Musescore that gets me playing and making music. I have a text document kept on my computer that has a list of ideas involving music that I'd like to eventually try and execute, so I'll mostly be looking at that document. I also listen to a lot of orchestral music and listening to them will also give me ideas to start making my creative project. (Student 3, Journal Entry, October 17)

Clearly, this student has adopted a mindset toward generating musical ideas and experimenting with them. Another student acknowledged that the open-ended nature of this project makes them uncomfortable, but also that they were willing to work through the discomfort to improve their creative skillset. This young person chose to compose for solo piano, working with an online music notation application called Note Flight: "I started goofing around with notes and rhythms on Note Flight" (Student 11, Journal Entry, October 19). Later, the student wrote about experimenting with different endings for their piece. "I tried changing the ending, but it sounded way worse so I'm switching it again. I kept tweaking it throughout the day and I think I switched it to something that was better than before" (Student 11, Journal Entry, October 26). Another student's journal is recorded in concise entries that are richly descriptive of how experimentation was a significant part of their creative process. While this student does not refer explicitly to experimentation in their work, their journal entries reveal that experimentation is an implicit and integral part of their process. Examples include entries such as "Combined some ideas from Sep 12 and 13", "modified music. Overall speed of the music is now slower. Replaced intro with a

‘calmer’ one”, “instrument change”, “reverted instrument change”, and so on (Student 8, Journal Entries, September 18, November 3-4, 7).

In contrast to Student 8, another student was highly descriptive of their process with a journal almost 3,300 words long – the longest of the participant journals by a significant margin. While much of the journal of Student 6 is descriptive and written in a conversational style, it is abundantly clear that they recognize that this project is designed for experimentation and deep engagement. The advanced level of preparation that this young person took to get ready to complete this project is a strong indicator that they were anticipating this project based on their previous experience with opportunities to create with music as part of my courses. This student wrote of beginning to work on the project prior to the start of the school year, which is a strong indicator of engagement and excitement for creating in and of itself. They had decided to create a cover version of a song using a software application called SynthV, a type of programmable vocal synthesizer. In more accessible terms, it allows the user to program a vocal line using a bank of sound samples captured from the voice of a particular singer. This young person was generous enough to provide a brief history of vocal synthesis, and a description of how the software works, including a clear claim that vocal synthesizers are NOT Artificial Intelligence (AI) music generators and can only work with human programming. This technology is complex and cumbersome to use. The student recognized that a significant part of their experimentation would need to be in the form of learning to use the software first, prior to working on their project: “I spent most of my time working on this in the summer as an opportunity to learn how the program works and experimenting with the different tuning parameters” (Student 6, Journal Entry, September 18). Student 6 also recognized that the open-ended nature of this project allowed them to explore elements of programming that they may not have had the opportunity to

explore in other circumstances. For example, their creative objective was to formulate a vocal duet using a vocal synthesizer to manipulate two voice banks to create the vocal lines. The song the student chose to work with is in English, yet one of the voice banks they were using was all in Japanese language: “I only have access to her JPN voicebank, so I have to syllabicate all her [English] lyrics using sounds that exist in the Japanese language” (Student 6, Journal Entry, October 6). Clearly, this student was deeply engaged with the creative process, evident in their pre-planning, their attention to detail, and their commitment to working through challenges to accomplish their goal. Moreover, Student 6 recognized that this type of engagement was possible in this project due to the open-ended design.

The student questionnaire also provided rich insight into the engagement of students with the creative process. Project participants completed the questionnaire at the end of the project, after all the sharing was complete and feedback had been received. As such, the responses are reflective and summative looking back on their experiences with this project. Several of the responses dealt directly with the significance of experimentation relating to the creative process. Recall that question 1 was an invitation to reflect on growth: “How has your experience with this project increased your overall growth as a creative student musician? What did you learn about yourself as a student musician?” Student 4 wrote “It increased my growth by causing me to experiment with new concepts and ideas. I learned that I struggle with the creative process, as well as making decisions and sticking with ideas” (Student 4, Questionnaire, Question 1). In this response, it is evident that the student recognized that their engagement was deepened by the need to experiment and make music decisions. Similarly, another student wrote:

This project has helped me grow by pushing me to think more creatively and explore new ways to express myself through music. I learned that I enjoy experimenting with different

sounds and styles and that I am capable of composing and arranging music in ways I hadn't considered before. It also reinforced my ability to work independently and trust my musical instincts. (Student 9, Questionnaire, Question 1)

This response clearly demonstrates deep engagement stemming from experimentation and working through complex decision making in an open-ended project. Student 9 also acknowledged the significance of experimentation in their engagement with this project in their response to question 3: “I really enjoyed the freedom to create something unique and personal. Having the chance to experiment with different musical elements, whether it was composing, arranging, or performing, made the process exciting” (Student 9, Questionnaire, Question 3). Lastly, another student referenced the value of experimentation in their response to question 2 – “What are some challenges you experienced while working on this project?” Their response indicated that experimentation was a valuable part of the problem-solving process when they felt that something was missing in their work: “I experimented with many instruments, added many parts, and kept what seemed to have worked” (Student 8, Questionnaire, Question 2). These student responses to the questionnaire all support that students found meaningful engagement with the creative process through experimentation because of the open-ended design of this project.

The evidence presented in this section from field notes, audio transcripts, student journals, and questionnaires underscores the profound impact of open-ended pedagogy on student engagement with the creative process. It also demonstrates a myriad of ways that students experienced growth in their musical identity and competencies through experimentation and iterative cycles of idea generation and refinement. The structured yet flexible design of the project allowed students to explore, experiment, and reflect on their musical ideas in a supportive

environment. This approach not only fostered creativity but also encouraged students to embrace challenges, develop problem-solving skills, and deepen their understanding of musical composition. Rather than impeding learning, these moments of uncertainty functioned as productive struggle, a condition widely identified as central to creative learning when students are supported in navigating ambiguity rather than shielded from it (Beghetto, 2016; Bolden, 2014; Bolden & DeLuca, 2022; Nazario, 2022). The students' reflections reveal a significant growth in their creative abilities and a heightened appreciation for the iterative nature of the creative process. This evidence aligns with outcomes M-CR1, M-CR2, M-CR3, and M-R4 (Manitoba Education and Advanced Learning, 2015).

Creative Growth Through Self-Reflection. This project was designed to include many opportunities for reflection as part of instruction and process for both students and for me as the teacher. Creative Learning Growth & Self-Reflection was assigned to any units of data which contained metacognitive observations about the strengths and weaknesses in the participants' own creative process, uncertainties, shifts in approach, and/or reflections on learning. Perhaps not surprisingly, the student journals and questionnaires were rich with units of data in which students reflected on exploring new ideas, experimenting with musical elements, and on the creative process in general. The following section contains evidence from student journals and questionnaires which reveal students' metacognitive awareness, ownership, and deepened engagement through the open-ended, student-directed design of the creative project and therefore supporting RQ1 Theme 2: Open-Ended Pedagogy Enables Deeper Engagement. The examples provided align with recursive learnings M-CR1, M-CR2, M-CR3, M-C3 and M-R4 (Manitoba Education and Advanced Learning, 2015). This evidence also highlights aspects of student growth in musical competencies and concepts, problem-solving strategies, and resilience

supporting the deep impact that this project had on their sense of musical identity. Thusly, the evidence presented here must also be considered aligned with RQ3 themes 7 and 8: Growth in Musical Identity, Confidence, and Expression and Creative Problem-Solving and Resilience.

This pedagogical innovation was designed to be open-ended, without pre-determined criteria for the students to work toward. Student reflections in journals and questionnaires reveal many varied examples of how students exhibited deep engagement with the creative process through the metacognitive observations that they make in their reflections. For example, Student 4 writes:

I always struggle to think of what I'm going to do/create as well as sticking with an idea and seeing it through... To combat these problems, I've decided to simplify my thinking and come up with ideas that are easier to put into action with my current knowledge.

(Student 4, Journal Entry, November 29)

This honest reflection reveals this student's growth through self-regulation. They found the lack of criteria and the multitude of choices to be difficult and ambiguous. When faced with the ambiguity of this open-ended project, the student made the decision to set realistic parameters for themselves, demonstrating adaptive learning and deeper metacognitive engagement with the process. When reflecting on their experience with the project in the questionnaire, this student drew a connection between productive discomfort and growth: "[This project] increased my growth by causing me to experiment with new concepts and ideas. I learned that I struggle with the creative process, as well as making decisions and sticking with ideas. (Student 4, Questionnaire, Question 1). They also confirmed that they experienced growth as a result of working through the challenges of navigating the decision-making process: "I experienced difficulties while trying to decide where to start and how to realistically build on ideas...

eventually was able to find an idea that I could think about in a clear way” (Student 4, Questionnaire, Question 2). For this participant, the open-ended nature of the project revealed both freedom and productive discomfort, prompting growth in their self-awareness about decision-making in creative contexts. They were able to navigate the challenges they experienced through deep engagement and self-regulation, all resulting from the open-ended project design.

In the previous section, the highly detailed journal of Student 6 was described. In their entry of December 20, this student was responding to a prompt to reflect on the concepts of BDT as they relate to learning, knowing, and assessment. The portion of this entry regarding transformation is relevant to open-ended pedagogy:

“When I started the project, I thought it would be a really interesting idea to arrange a Vocaloid song because of how it would be something new that most people hadn’t seen before... By taking in different elements we probably haven’t considered before, we change and transform our project into something original and creative.” (Student 6, Journal Entry, December 20)

In this entry, the student has demonstrated a strong sense of transformative learning. They have recognized that the open-ended project design allowed for personal exploration, integration of peer feedback, and iterative refinement. All of these are indicators of deep engagement stemming from the autonomy and freedom inherent to the design of this project. Later in the process, this student expresses a desire to continue exploring their work with vocal synthesizers: “If we do another creative project next semester, I think I’d wanna play around with SynthV again... I think it would be a ton of fun” (Student 6, Journal Entry, December 12). This reflection indicates sustained intrinsic motivation to continue creating beyond the scope of the project resulting from the open-ended design.

Another type of engagement is evident in this student's observation: "Sometimes, I don't know what is missing in my music... To address this issue, I would go online and listen to other music to find inspiration and to see how other people make their songs" (Student 8, Journal Entry, November 27). Students were given a prompt in class to reflect in their journals about challenges they had experienced to date and the steps they took to work through them. In their response to that prompt, Student 8 demonstrated reflective problem-solving and autonomous learning strategies when faced with uncertainty. This self-directed inquiry, made possible by the open-ended nature of the project, is a strong example of deep engagement with the creative process. Similarly, another participant reflected on challenges they experienced, and the steps taken to work through them: "One challenge we experienced was making sure the melody and harmony sounded balanced... We solved this by experimenting with different octaves and sometimes modifying rhythms slightly to make it smoother" (Student 9, Journal Entry, undated). This student reflection indicates both collaboration and iterative adjustment. Student 9 and their collaborator employed musical decision-making as a learning process, demonstrating deeper engagement with the creative process enabled by open-ended creative work where outcomes are not predefined.

Throughout the project, these high school music students were encouraged to explore, to try ideas, to expand, and through iterative repetition to make changes to their creative work. One student reflected on how this type of work and deep engagement can yield unexpected and sometimes pleasing results: "A lot of trial and error, many ideas trashed, and roadblocks a-many, but it's done... This was a piece where we didn't really follow any rules... but I think that's why I like it so much" (Student 3, Journal Entry, January 3). This reflective self-assessment illustrates the value of freedom and risk-taking inherent to this open-ended pedagogical design. In this

response, Student 3 has celebrated unstructured creativity and acknowledged unpredictability as part of meaningful engagement and artistic growth. This participant was sufficiently engaged with music that they noted a transformation in their musical identity: “I have taken a special interest in music theory and classical music conventions... Music is an integral piece of my life, as it makes part of who I am as a person” (Student 3, Questionnaire, Question 4). This reflective self-assessment highlights the transformative power of open-ended pedagogy, where deep engagement results when students are empowered to exercise autonomy and take creative risks.

In summary, the evidence from student journals and questionnaires demonstrates that open-ended, student-directed pedagogy fosters deep engagement through metacognitive growth, self-regulation, and intrinsic motivation. Such sustained engagement aligns with research demonstrating that open-ended tasks promote intrinsic motivation by allowing learners to pursue personally meaningful goals within flexible constraints, a process Green et al. (2024) describe as internally directed attention guided by generative goals. Since this project design was free from predetermined criteria, students were challenged to navigate ambiguity, make creative decisions, and take ownership of their learning. This autonomy enabled them to reflect critically on their processes, adapt strategies, and persist through uncertainty, which are hallmarks of creativity and transformative learning. As students embraced freedom, risk-taking, and self-assessment, they not only developed stronger creative competencies but also deepened their understanding of themselves as musicians and learners. Collectively, these findings affirm that open-ended pedagogical design enables meaningful engagement by empowering students to connect reflection, creativity, and personal growth within the music-making process.

Collaboration & Peer Feedback: Shared Creativity in Open-Ended Learning. The foundational pedagogy for this project encourages students to engage with the creative process

through self-directed exploration while learning collaboratively through peer interaction. As Bolden et al. (2023) note, “teachers and peers can encourage ... exploration with feedback that recognizes inventiveness and risk-taking” (p. 22). Across both the student journal and questionnaire data sets, the code Collaboration & Peer Feedback revealed that opportunities for shared dialogue, co-creation, and peer response were instrumental in deepening engagement. Students described how working alongside peers, exchanging feedback, and witnessing others’ creative processes enhanced both their learning and their sense of belonging within the ensemble community. In this way, collaboration became a catalyst for more meaningful engagement and a catalyst for individual growth in musical competencies and in musical identity. Collaboration aligns strongly with recursive learnings M-CR3 (refines, revises, and shares), M-C3 (develops understandings about the roles, purposes, and meanings of music), and M-R2 (critically listens to, observes, and describes music experiences) from the Manitoba music curriculum (Manitoba Education and Advanced Learning, 2015).

Student journals provided rich examples of how collaboration impacted the engagement of some students throughout the project. A clear pattern across the student journals is the emergence of *collaborative autonomy*, i.e., the ability of students to determine when, how, and with whom they worked. This self-directed nature of the project encouraged personal investment and creative risk-taking. Student 3, for example, described initiating a collaboration independently, writing: “Since Allan [pseudonym] and I decided to perform together at Ensemble Night, we’ve taken the opportunity to discuss potential collaborations with the creative project... Nevertheless, I’ve already begun composing two pieces on Musescore” (Student 3, Journal Entry, October 19). The absence of pre-determined criteria for the project allowed the partnership to evolve organically, fostering intrinsic motivation. Later, as the collaboration deepened, the

same student noted: “Allan and I finally got our collab going, and we’ve already finished composing the first movement. As of today, we’re drafting ideas for the second movement” (Student 3, Journal Entry, November 8). In this entry, it is evident that the open-ended design of the project supported extended creative engagement. These students moved beyond basic completion toward a multi-movement composition. Even moments of creative impasse were framed as opportunities for renewal. When the pair encountered a creative block, Student 3 wrote: “We’re taking a break from the collab as we’ve hit a bit of a roadblock creatively... we’re going to start working on it again with fresh ideas and fresh ears” (Student 3, Journal Entry, November 14). This decision to pause, reflect, and return is a strong example of self-regulation, and it demonstrates how autonomy and the open design of the project encouraged sustained engagement rather than surface-level participation.

In their journals, students often reflected on the value of peer interaction as a form of reflection, turning informal discussion into meaningful opportunities for growth and engagement. For instance, Student 4 reflected on sharing their work with others: “It went okay. I found that I was having a hard time trying to define the details of my idea in a clear way that makes sense to those who were around me” (Student 4, Journal Entry, November 15). This entry demonstrates how the opportunity for informal discussion about the project in the classroom invited metacognitive processing through dialogue. The student’s attempt to explain their creative intentions to peers demanded clarification and critical thought. The opportunity to compare approaches within a non-competitive, exploratory atmosphere encouraged this young musician to recognize both uncertainty and possibility as natural parts of the creative process. Another student also wrote a similar reflection about presenting and discussing ideas with peers: “It went okay when I described my idea to others. I had some trouble because I couldn’t think of the

words to describe my idea, but overall, it went okay. I felt relaxed” (Student 8, Journal Entry, October 15). This reflection illustrates how sharing ideas in a supportive environment fostered communicative confidence and reflective practice. The process of articulating musical ideas to others, even imperfectly, supported deeper engagement through social learning.

There are other examples in the journals of students leveraging peer interactions for ideas to advance their own work. Student 6 described using informal peer feedback to evaluate their aesthetic decisions: “I want to get another opinion on it because I want to see if their voices harmonize well and that it doesn’t sound too dissonant” (Student 6, Journal Entry, November 27). This willingness to seek constructive feedback illustrates a desire to engage with others for stimulation and affirmation of musical decision-making. The iterative role of peer feedback was evident in this student’s later entry: “I revised over and over, and took into consideration a lot of feedback, such as sharing my project with Suzy, Simran, and Alisa [pseudonyms], and receiving feedback on the harmonies of the end chorus” (Student 6, Journal Entry, December 20).

Similarly, another participant described learning from a peer’s creative process: “One idea I heard from someone was a 40-second generated percussion track that they plan to add a melody to” (Student 9, Journal Entry, November 15). This example demonstrates how students’ engagement was broadened by experiencing the work of their peers and providing feedback. Listening to and reflecting upon the creative work of others prompted curiosity and iterative thinking, which are key features of open-ended pedagogy. This point is affirmed in the journal of Student 11, who wrote: “It was interesting to see how others approached the same task differently. I got ideas for my own piece after hearing what they were doing” (Student 11, Journal Entry, November 20). Such reflections reveal that peer interaction was not a passive exchange, but an active process of idea generation, reflection, and creative adaptation. Through

peer feedback, students were given the opportunity to hear the perspectives of others, thereby expanding their own conceptual framework and growing in capacity as a result.

Across these examples, collaboration emerged as both an artistic and metacognitive catalyst for engagement with the creative process. Students not only refined their own musical works through peer dialogue but also extended their concept of creativity and music in general. These reflections suggest that open-ended pedagogy, by leaving space for interpretation and negotiation, enabled deep engagement with learning and the creative process through social connection and mutual influence. They also reveal the multitude of ways in which students were experiencing growth in musical capacity, confidence, and identity.

Parallel findings appeared in the student questionnaire data, where collaboration was cited as one of the most enjoyable and enriching aspects of the creative project. Responses to Question 1 (“How has your experience with this project increased your overall growth as a creative student musician?”) and Question 3 (“What did you enjoy most while working on this project?”) particularly emphasized peer collaboration as a driver of creative engagement and reflection. Examples are noted in the following paragraphs.

One student noted in response to Question 1 noted: “I learned how to work with other people's ideas so we can find a good middle ground” (Student 10, Questionnaire, Question 1). This comment exemplifies the negotiation and adaptability central to open-ended creative learning. The student’s reflection moves beyond technical collaboration toward a recognition of creative interdependence; a process of co-construction that supports both artistic and interpersonal growth. Other examples are found in the responses to Question 3. For example, this student stated concisely: “Working with others to make music” (Student 2, Questionnaire, Question 3). Although brief, this statement captures how social music-making functioned as an

affective anchor for engagement, increasing their enjoyment of the process. For this student, the collaborative process transformed the project from an individual assignment into a shared creative experience. Another student elaborated on this idea, explaining: “I enjoyed collaborating with a friend who shares a similar passion in music” (Student 3, Questionnaire, Question 3). Here, the act of collaboration itself became a source of intrinsic motivation, reflecting how peer partnerships nurtured emotional and creative investment. Student 9 articulated this clearly in their response: “I really enjoyed the freedom to create something unique and personal... I also liked collaborating with others and seeing how different perspectives could enhance my ideas” (Student 9, Questionnaire, Question 3). This reflection demonstrates the balance of autonomy and community that was made possible through the open-ended design of this project. The student valued both the independence to pursue personal ideas and the opportunity to refine them through collective exchange. Lastly, Student 12 emphasized the social-emotional dimension of collaborative creative work: “Not even the making music part, just the community and friends I worked with... it was mainly the being-with-friends aspect that I liked the best” (Student 12, Questionnaire, Question 3). This response underscores the socializing dimension of collaboration that is embedded within open-ended music pedagogy: creativity became a relational process rooted in belonging and connecting with others through shared experiences.

When triangulated across data sets, the findings suggest that collaboration and peer interactions served as a bridge between autonomy and engagement. The open-ended project design created a learning environment which allowed students to shape their own musical directions while also engaging meaningfully with the perspectives of others. Peer feedback encouraged reflection, comparison, and adaptation; processes which led to deeper conceptual understanding and emotional investment. Moreover, the peer feedback processes employed in

this project reflect the collaborative creative practices referenced in Kelly & Leggo (2008) and McLaren & Stables (2008). In both journals and questionnaires, students consistently described collaboration as an amplifier of creativity. The opportunity to share, critique, and respond to peers fostered metacognitive awareness and a sense of shared purpose.

The findings clearly situate collaboration and peer feedback as vital expressions of the broader RQ1 theme; Open-Ended Pedagogy Enables Deeper Engagement. Within the design of this pedagogical innovation which emphasized exploration rather than prescription, peer interaction became a space for authentic dialogue and reciprocal learning. Students' engagement deepened because the learning environment valued process over product, dialogue over direction, and community over compliance. Through collaboration, students developed the confidence to articulate ideas, the patience to listen, and the openness to adapt—all essential dimensions of creative musicianship. The examples cited in this section all align strongly with recursive learnings M-CR3 (refines, revises, and shares) and M-R2 (critically listens to, observes, and describes music experiences) from the Manitoba music curriculum (Manitoba Education and Advanced Learning, 2015). The evidence demonstrates that open-ended pedagogy not only invited deeper individual engagement but also fostered a culture of shared inquiry, reinforcing the social and collaborative nature of music learning. Embedded in these findings is affirmation of the deep impact this project had on the high school students who completed it, evident in the abundant growth they demonstrated musically and personally through their reflections and engagement with creating music.

Collectively, the evidence across all data sets—field notes, audio transcripts, student journals, and questionnaires—demonstrates that open-ended pedagogy serves as a powerful catalyst for deep engagement in creative music learning. The pedagogical design of this project

intentionally balanced freedom and structure: scaffolding supported students' entry into creative processes while open-ended parameters sustained autonomy, experimentation, and reflection. Students were invited to explore their own ideas, take risks, and engage in iterative cycles of creation, revision, and sharing. Through this design, learners encountered authentic challenges that prompted self-regulation, problem-solving, and metacognitive awareness, ultimately deepening their investment in both the process and product of their creative work.

Thematic analysis revealed that open-ended pedagogy nurtured a holistic form of engagement encompassing cognitive, emotional, and social dimensions of learning. Students demonstrated increased motivation and ownership when afforded autonomy, as well as resilience in navigating ambiguity and productive discomfort. They articulated growth in creative confidence, adaptability, and self-knowledge—traits characteristic of transformative learning. Moreover, collaboration and peer feedback extended engagement beyond the individual, fostering a sense of community and shared purpose. Through dialogue and co-creation, students learned to articulate ideas, critically listen, and refine their artistic choices, thus embodying the recursive learnings M-CR1, M-CR2, M-CR3, M-C3, and M-R4 outlined in the Manitoba Music Curriculum Framework (Manitoba Education and Advanced Learning, 2015). Ultimately, the findings affirm that open-ended pedagogy empowers students to engage more deeply with music as both an expressive and reflective art form. In so doing, students experienced growth in musical competencies and musical identity while building resilience and learning problem-solving strategies. As engagement deepened, students' sustained interaction with ideas, feedback, and revision mirrored learning-oriented definitions of creative growth that prioritize process, reflection, and iterative development over polished outcomes (Bolden & DeLuca, 2022; Hatch, 2023). By prioritizing autonomy, exploration, and collaboration over prescriptive outcomes, this

pedagogical approach transforms the classroom into a dynamic space of inquiry, creativity, and personal meaning-making to the reciprocal benefit of students and the teacher alike.

Theme 3: Scaffolded Support and Technological Guidance Build Capacity

Theme 3 explores how scaffolded support and technological guidance played a pivotal role in building students' capacity for creative music-making throughout this project. As students engaged with digital tools such as notation software and Digital Audio Workspaces (DAWs), they encountered a range of technical challenges from software limitations and file-sharing issues to audio distortion and program crashes. Rather than serving as barriers, these challenges became meaningful learning opportunities when paired with autonomy, peer collaboration, and responsive teacher support. Drawing on evidence from student journals, questionnaires, and field notes, this section illustrates how technological fluency and musical growth were cultivated through structured exploration, adaptive problem-solving, and reflective practice. This evidence aligns with the following recursive learnings from the Manitoba music curriculum:

- M-M1: The learner develops competencies for using tools and techniques to produce and represent sound and music in a variety of contexts.
- M-M3: The learner develops competencies for using elements of music in a variety of contexts.
- M-CR2: The learner experiments with, develops, and uses ideas for creating music.
- M-R3: The learner analyzes and interprets music experiences.
- M-R4 The learner applies new understandings about music to construct identity and to act in transformative ways. (Manitoba Education and Advanced Learning, 2015, p. 16)

As with the previous sections, the evidence presented here will also necessarily address the impact this project had on my students' learning growth and agency (RQ3). The emergent themes associated with RQ3, Theme 7: Growth in Musical Identity, Confidence, and Expression, Theme 8: Creative Problem-Solving and Resilience, and Theme 9: Reciprocal Growth of Students and Teacher, are deeply intertwined with Theme 3. The findings affirm that when students are empowered to navigate digital environments with appropriate scaffolding, they develop not only technical and musical skills but also confidence, resilience, and deeper creative engagement.

Technical Challenges Are Inevitable--And Important to Capacity. Most students who completed this project elected to use some form of technology while working through the creative process to produce their final piece. Of the 78 high school students in my courses who worked on this project, only one student composed a piece using pencil and paper to perform for their peers. All the rest of the students, including the 12 participating in this study, used some form of technology along the way either for notation and playback or to record/capture/program sounds in a multi-track Digital Audio Workspace (DAW). Within the open-ended design of the project, students frequently and inevitably encountered software limitations, equipment issues, and complex digital tools. Furthermore, since most students were working with different software applications, it was less likely that they would be able to work through their challenges with a peer who was experiencing similar issues. Consequently, it was challenging for me as a teacher to provide adequate technical support for students as they moved forward with their work. This section will present and examine evidence from the student journals and the researcher field notes coded with Technical Challenges which supports the theme Scaffolded Support and Technological Guidance Build Capacity.

A prominent pattern in the student journals revealed that technical challenges were not simply obstacles but critical learning opportunities that deepened students' musical and digital competencies. These moments of difficulty often became catalysts for growth when scaffolded through self-directed experimentation and peer support. The identified theme Scaffolded Support and Technological Guidance Build Capacity captures how the combination of autonomy and accessible support structures allowed students to develop technological fluency, persistence, and confidence in navigating digital music-making environments. For example, Student 1 discovered limitations within notation software: "Today for the first time I tried using MuseScore and I found out that I am limited with the internal software." (Student 1, Journal Entry, November 20). Despite identifying limitations this student was able to navigate the challenges through persistence and perseverance to reach their desired result for their final project. Another student discovered that sharing files collaboratively can be challenging in some applications: "Musescor hates file sharing, so right now we're brainstorming workarounds." (Student 3, Journal Entry, October 25). Again, the discovery of a technical challenge became an opportunity for collaboration and problem solving. These students sorted out how to share their work and were able to continue working on their project. Both examples demonstrate how students experienced growth and development in resilience through the course of their work in this project.

The detailed contents of the journal of Student 6 have been referred to in the previous sections. Not surprisingly, this student also described one of the most detailed examples of overcoming technical challenges and growing as a result, reflecting on frequent program crashes while using *SynthV*:

The thing about my project is that it's all being done on my personal laptop, and it keeps crashing my SynthV program all the time. Thankfully, the shortcut to save the project is

really simple (Ctrl + S), so every few minutes of editing, I'll just press those to make sure [before] my laptop gives up. ... I had to search up a tutorial to download the actual program, which involved me copy/pasting a bunch of commands into the Linux Terminal.

(Student 6, Journal Entry, November 27)

Although this young person's challenges were substantial, ranging from software and hardware instability to operating system compatibility, their reflection demonstrates adaptive problem-solving and the ability to self-scaffold. The use of online tutorials and iterative saving practices show how resilience was built through active engagement with technological problems. What began as a limitation became an important part of their learning process that strengthened both digital competency and musical autonomy. Similarly, another student noted ongoing troubleshooting with audio distortion in MuseScore: "Adjusted volume to fix problem where snare drum part is distorted due to high volume" (Student 8, Journal Entry, December 25). Albeit brief, this statement highlights an important pedagogical point: rather than viewing technology as a barrier, this high school musician approached it as part of the creative process by testing, revising, and problem-solving in real time. In another example, the same student described problem-solving within compositional development:

Sometimes, I don't know what is missing in my music, even though I feel that it is (a counter melody? Percussion? Bass?). To address this issue, I would go online and listen to other music to find inspiration and to see how other people make their songs. (Student 8, Journal Entry, November 27)

This reflection indicates how scaffolding extended beyond teacher-led instruction to include self-initiated inquiry and digital resource use. This student identified their own internal limitations (uncertainty about instrumentation) and sought external models to bridge the knowledge gap,

illustrating a hallmark of scaffolded capacity-building. In this way, the learner began to generate their own support.

The student journal data consistently illustrates that technological challenges functioned as embedded learning experiences which supersede the interruptions that they present initially. Through exploration, peer consultation, and reflective troubleshooting, students developed both technological confidence and creative independence while growing in musical competencies. My role as the teacher, though often implicit in these accounts, appears in the form of previously modelled strategies (e.g., saving protocols, use of tutorials, iterative revision) and an overall climate of safety in which students are allowed and even encouraged to make and learn from mistakes. The data affirms that scaffolded technological guidance, rather than prescriptive instruction, was key to capacity-building. Students were encouraged to take ownership of their learning environments, integrating digital tools as means of expression and creation rather than external constraints.

The field notes corroborate these patterns by capturing my observations of recurring technical difficulties and the evolving instructional responses that sought to address them. Early in the process, I recorded that “many [students were] expecting/planning to use software, expressing challenges with learning to use the software” (Field Notes, November 26–29). This evidence demonstrates that although digital tools were integral to the project’s open-ended design, many students lacked the foundational skills to use them effectively. This finding underscores the need for scaffolded technical instruction such as introductory tutorials, step-by-step assignments in certain software, and ongoing technical support as needed to prevent tool-learning from blocking creative progress. As noted previously, since student participants were free to choose which digital tools they would use, administering the appropriate scaffolding was

challenging, if not prohibitive, in the instructional design. Similarly, another entry in my notes from the same week documented a focused conversation about recording audio:

I spoke with them about some challenges inherent with recording live audio: the dangers of using multiple recording devices, attempting to capture audio on same device as playback, using wired headphones with no microphone, high latency due to unstable internet connection, using a tempo reference (click track) within software. (Field Notes, November 26–29)

These practical observations highlight the extent to which creative music-making in a digital environment depends on reliable technical infrastructure and procedural knowledge. This form of guidance reflects research on creative scaffolding that emphasizes supporting students' engagement with the creative process without narrowing the range of possible outcomes (Beghetto, 2016; Hickey, 2012; Morin, 2002). The field notes suggest that students required specific scaffolds such as checklists or demonstrations to best help them maneuver the complexities of audio capture, latency, and routing challenges effectively. As noted previously, the overarching challenge would be how to provide this scaffolding in a meaningful way for students who are using a wide variety of software.

As the project progressed, the January field notes reflected how these same technical issues surfaced again during student presentations: "Listening to replays of student presentations, much of the discussion has to do with the learning curve associated with learning to use tools (DAW, production issues, sound capture, manipulation of sound, etc.)" (Field Notes, January 24). These replays served as diagnostic opportunities for me to identify gaps in technological fluency and to make notes so that instruction could be adjusted accordingly in future versions of this project. The same entry included the observation that "creating music by collecting and

manipulating sounds in a DAW is a separate (albeit intertwined) skill than producing the music and making decisions to make it sound *good*” (Field Notes, January 24). This distinction between technical manipulation and musical decision-making echoes the experiences expressed in the student journals, where learners often found themselves pulled between the creative and mechanical aspects of production. My reflection reinforces that both dimensions should be supported through deliberate scaffolding. A recommendation embedded in the same set of field notes pointed toward a specific pedagogical adjustment: “Observation [for future instruction]: continue to remind students to allow time/space to explore software. These explorations are best done on their own, as opposed to trying to solve a problem while creating something” (Field Notes, January 24). This insight directly aligns with the theme, emphasizing that dedicated time for exploratory, low-stakes software practice builds capacity without derailing the creative flow of composition. It also aligns with the challenge of servicing the needs of the students through in-class instruction by recommending that students make themselves aware of their own technological limitations and take appropriate steps to address them. This evidence also implicitly addresses the RQ3 themes Creative Problem-Solving and Resilience and Reciprocal Growth of Students and Teacher.

Further reflection at the end of January pointed to the dual need for stronger feedback systems and more explicit technical support:

I can identify a significant need in my own practice to improve the feedback loop for this project... More time and space [in class] needs to be allocated to this purpose... Lots of tech support needed for some students, both with administrative tasks (creating folders, documents, file-sharing, uploading, etc.) and with music software. It is erroneous to

assume that because they use a mobile phone often that they understand any specific technology. (Field Notes, January 30)

This observation expands the scope of scaffolding beyond music software to include administrative and organizational skills. In my experience, these areas are often overlooked but essential to sustaining creative workflow in technology-integrated projects. Furthermore, by the project's conclusion, such systemic challenges persisted: "MAJOR challenges associated with file sharing protocol with students. Using shared folders in OneDrive is prohibitive" (Field Notes, February 16). This final note underscores that scaffolding must also extend to the structural and logistical level, ensuring that the systems for storing, sharing, and submitting work are functional and equitable and that students are trained in how to use them. Without this infrastructure adequately in place, there is risk of significant disruption to the creative process.

Together, these field notes confirm that scaffolded support and technological guidance are not supplementary to creative learning but central to it. They show that technical fluency, when nurtured through structured exploration, responsive troubleshooting, and clear procedural frameworks, becomes an enabler of deeper creative engagement rather than an obstacle. Such scaffolded support aligns with research demonstrating that targeted guidance, when framed as enabling rather than controlling, can expand learners' creative capacity and sustain engagement through challenge (Bolden & DeLuca, 2022; Nazario, 2022). Importantly, this engagement extended beyond technical skill-building to foster growth in students' musical identity and confidence. As students navigated digital challenges, they developed resilience and self-efficacy, learning to persist through setbacks and refine their creative visions. These moments of problem-solving became transformative, allowing students to articulate their musical ideas more clearly

and connect them to personal and cultural meaning, which are hallmarks of RQ3 Theme 7 and Theme 8.

Moreover, the triangulation of student and teacher perspectives highlights a reciprocal learning relationship. As students moved through the project and demonstrated autonomy and adaptability, I was prompted to reflect on the project design and adjust my instructional and support strategies accordingly. This responsive exchange is the embodiment of Theme 9: Reciprocal Growth of Students and Teacher. In open-ended, technology-driven music learning environments, capacity-building emerges where autonomy and structured support intersect, that is when students are given both the freedom to explore and the scaffolds necessary to succeed. Students did not merely overcome problems; they cultivated habits of inquiry, adaptability, and musical and technological agency. These findings reinforce the broader RQ1 theme, Scaffolded Support and Technological Guidance Build Capacity. Within the open-ended project design, technical challenges acted as powerful mediators of learning. Students did not just overcome problems as they encountered them, they developed habits of inquiry, adaptability, and technological agency. This form of engagement nurtured both musical and meta-musical growth, positioning students as autonomous problem-solvers capable of navigating contemporary digital music-making landscapes. Through a combination of self-directed learning, teacher scaffolding, and technological exploration, students' creative capacities expanded beyond content knowledge.

From Technical Challenge to Musical Growth: Scaffolding Digital Learning for Creative Capacity. Across the journals and questionnaires, many participants described how teacher guidance, structured and self-initiated exploration, and access to digital tools helped them expand their technical and musical skills. These high school musicians experienced significant growth in their musical competencies through their interactions with digital music-making tools.

Their reflections show that scaffolded instruction and ongoing support not only reduced frustration but also strengthened confidence and musical independence. Units of data from student journals and questionnaires which included reflections on gaining competencies for creating and producing music were coded with Growth in Musical Competencies. Evidence coded in this manner aligns with the following recursive learnings from the Manitoba music curriculum:

- M-M1: The learner develops competencies for using tools and techniques to produce and represent sound and music in a variety of contexts.
- M-M3: The learner develops competencies for using elements of music in a variety of contexts.
- M-CR2: The learner experiments with, develops, and uses ideas for creating music.
- M-R3: The learner analyzes and interprets music experiences.
- M-R4 The learner applies new understandings about music to construct identity and to act in transformative ways. (Manitoba Education and Advanced Learning, 2015, p. 16)

This section explores evidence from the student journal and questionnaire datasets which was coded with Growth in Musical Competencies and supports the RQ1 theme Scaffolded Support and Technological Guidance Builds Capacity while also addressing themes relating to RQ3, particularly Growth in Musical Identity, Confidence, and Expression and Creative Problem-Solving and Resilience.

Across the student journals there are rich examples of students reflecting on their own growth in various musical competencies through the navigation of technical challenges and the learning that derives from overcoming technological barriers. For example, this student noted

that “editing was a challenge simply due to what I was trying to accomplish with what is basically caveman software but after 5 hours of non-stop editing, it’s done” (Student 3, Journal Entry, November 14). This high school musician demonstrated persistence in developing technical skills through repeated practice within the limits of their chosen technology. While the software application posed barriers, the endurance and iterative experimentation it required contributed directly to their technical and musical growth. Structured teacher support, offered in the form of modelling, advice, and encouragement would further transform such frustration into capacity-building experiences. Guided troubleshooting or peer-sharing sessions could channel this persistence into explicit learning about editing workflow and time management.

The detailed journal of Student 6 has been referenced frequently in this chapter. Their reflective commentary reveals many entries which demonstrate musical growth. For example, this student provided definitions of terms in their journal to help (both them and the teacher) make meaning as they work on their project. Near the beginning of their journal, they offered a definition for the term *tuning* when using vocal synthesizers. In this context, *tuning* means “the process through which a producer adjusts the way their vocaloid [singing voice synthesis software] sings to bring their song to life” (Student 6, Journal Entry, September 18). The inclusion of definitions of terms is an indicator of growth in capacity as the student clearly needed to expand their vocabulary (and that of their reader) to move forward with their work. Later, when discussing tuning, Student 6 reflected on their iterative process and the inherent growth in musical competency:

Still going along with the project. I’ve tuned Teto’s part up to the end of the first chorus so far, although I might go back again and tweak some more stuff. I find that when I tune her louder, her voice gets a bit harsh... so I’ve mellowed it out by lowering her tension,

making her more relaxed and fitting better into the vibe of the song. While going through this project... I've been researching and watching a bunch of videos about how to tune on SynthV, and I've gotten the hang of what each of the parameters do. (Student 6, Journal Entry, November 7)

This entry shows significant growth in digital musicianship, as the student independently researched SynthV's tuning parameters to achieve a desired result in their work. Their reflection demonstrates how scaffolded instruction, specifically supported autonomy, self-directed online research, and reflection on parameter manipulation, enabled this student to develop both technical and aesthetic musical competencies. Further evidence from the same student confirms this point:

My first impressions on tuning [ASTERIAN] are that he'll definitely be a different challenge than Teto... His voicebank was made to be more powerful and sharp, but that's not really the vibe I'm trying to go for with this song, so I'll probably have to smooth out all those vibrato curves and mellow him out like I did with Teto, by lowering his tension. (Student 6, Journal Entry, December 6).

This journal entry reflects the student's increasingly nuanced grasp of the techniques of vocal synthesis and expressive control. They applied prior learning to their workflow, indicating scaffolded skill transfer. They demonstrated the ability to analyze the digital voicebank's characteristics and make informed, aesthetic adjustments, which is precisely the type of technical-musical integration the theme of this section describes.

Another student wrote brief notes that are iterative and descriptive of changes that they made to their work as the project unfolded. Revealed within these notes are examples of their discovery of elements of music production. For example, this young musician recorded: "Overall

speed of the music is now slower. Replaced the intro with a ‘calmer’ one. Revamped percussion parts. Began testing with Muse Sounds, a realistic sound library exclusive for MuseScore 4” (Student 8, Journal Entry, November 3). Student 8’s reflection evidences a growing sophistication with digital orchestration and sound design. Through structured experimentation and access to advanced sound libraries, this student expanded their ability to control texture, pacing, and timbre. In other words, they experienced growth in core musical competencies. Further evidence of this growth is found later in the same student’s observation: “Beginning part slowed down from 130 to 110 bpm. More dynamic change to the violoncello and violins parts” (Student 8, Journal Entry, December 24). Here, Student 8 demonstrated developing fluency in applying tempo and dynamic control within the software environment. These revisions show an ability to interpret musical outcomes and adjust parameters, illustrating how scaffolded technological practice translates directly into competency growth.

These examples from the journal data reveal that some students consistently positioned technological engagement, especially with notation software (MuseScore) and vocal synthesis tools (SynthV), as a primary site of learning. These uses of digital tools reflect research identifying technology as a powerful scaffold for creative music learning, enabling students to externalize, revise, and refine ideas that might otherwise remain inaccessible through traditional notation or performance alone (Hickey, 2012; Randles, 2022; Wise et al., 2011). Technical challenges were not simply obstacles but became vehicles for musical growth when paired with guided support, opportunities for experimentation, and reflective prompts. Students’ growing command of digital platforms led them to refine musical competencies including tempo control, dynamic shaping, orchestration, sound layering, and expressive interpretation. The iterative cycle of trying, troubleshooting, and reflecting, initiated by scaffolded teacher guidance, cultivated

growth in musical competencies, technical proficiency, confidence, creative independence, and problem-solving skills.

Similarly, data drawn from questionnaires reveal that through this project students not only overcame digital and procedural barriers but also experienced growth in musical competencies as a result. The open-ended design of the creative project placed students in a position where they were allowed to engage deeply with both musical and technical problem-solving. For many, this project represented their first opportunity to compose, arrange, or produce original music using digital tools. Through iterative engagement, structured support, and independent experimentation, students demonstrated significant growth in their understanding of musical structures, expressive choices, and the functions of technology in creative music production.

Some student responses to Questionnaire Q1 (increased growth as a musician) highlight that the use of digital tools for music production acted as both a challenge and a catalyst for learning. For example, Student 6 reflected on the growth they experienced while learning to use vocal synthesis software:

I interacted with a new method of creating music that I have heard but not personally done before: creating/arranging a song through vocal synthesis (using the SynthV program). The growth that came from this project mostly manifested in the form of learning new skills related to this method of creating music, as well as adapting to obstacles I encountered during the creative process (notating, tuning, etc.). (Student 6, Questionnaire, Question 1)

This reflection demonstrates the dual nature of technological learning within a scaffolded framework. While the student faced significant technical obstacles, those same challenges

became opportunities for skill-building and adaptive thinking. Rather than technology functioning as a barrier, guided experimentation with new tools allowed for a deepening of both musical and technical understanding. Another student described how exploration facilitated using notation software which led to greater awareness of compositional decision-making:

Experience with this project has taught me how to create feelings in music, especially a feeling that is melancholic. I achieved this by using minor chords and tempo and volume changes. I also improved my ability to figure out the chords for a melody that I came up with. (Student 8, Questionnaire, Question 1)

In this example, the student's ability to manipulate harmonic and dynamic elements reflects an applied understanding of musical expressivity developed through structured, technology-supported experimentation. The presence of playback features in notation software functioned as a scaffold in a way, allowing for immediate aural feedback that reinforced conceptual learning about harmonic relationships and emotional expression in music.

Scaffolded support was also evident in how students addressed their own limitations in theoretical knowledge through problem-solving and independent exploration in their responses to Questionnaire Q2 (challenges and steps to overcome them). One student explained: "I wanted to find a good chord progression, but it was quite difficult considering I don't have a lot of experience with music theory. ... I wanted to understand more behind chord progressions. ... It has helped me open doors" (Student 5, Questionnaire, Question 2). This comment demonstrates how technological engagement and teacher guidance are combined to stimulate curiosity and self-directed learning. The student's desire to move beyond superficial success toward theoretical comprehension demonstrates capacity-building that was both cognitive and practical in nature. Similarly, Student 8 detailed a process of experimentation that mirrors a scaffolded, inquiry-

based approach: “One challenge is figuring out the chords to a given melody. ... I experimented with many instruments, added many parts, and kept what seemed to have worked (ex. violins, oboe)” (Student 8, Questionnaire, Question 2). The student’s method of trial, error, and refinement parallels teacher strategies of incremental learning described in the field notes, such as recommending that students should explore digital tools separately from working on their composition (Field Notes, January 24). Together, these practices reflect a pedagogical environment in which technological experimentation was framed as an essential component of creative learning rather than as a distraction from it.

Many student responses to Questionnaire Q4 (impact on general understanding of music) were coded with Growth in Musical Competencies. Several of their reflections indicated an expansion of theoretical and structural understanding of musical concepts. For example, one student shared: “I have taken a special interest in music theory and classical music conventions, they have allowed me to expand my knowledge in the science and history of music through a European lens” (Student 3, Questionnaire, Question 4). Another wrote: “This was my first time composing, so I learned a lot about how to do that and exactly what needed to be on the sheet music. ... I’ve been paying more attention to those aspects of music” (Student 11, Questionnaire, Question 4). These excerpts reveal that engagement with composing music via digital software not only improved tool literacy but also encouraged students to connect practice to theory. In this way, scaffolded support extended beyond immediate technical assistance, nurturing transferable musical insight and metacognitive awareness. This participant recognized a broader scope for the project and its impact on their growth: “The project helped me realize that music is not just about playing notes. It also showed me that music can be a tool for creativity and problem-solving, and that I can use it as a form of self-expression beyond just performance” (Student 9, Questionnaire,

Question 4). Although written reflectively, this statement, which is connected strongly to this student's journal work, shows how teacher guidance and open-ended creative freedom prompted students to approach music through multiple competencies: analysis, problem-solving, and expressive decision-making. The scaffolded framework for the creative project enabled them to transfer performance skills into composition and digital production. Finally, this young musician articulated the broadening of musical perspective that occurs when technological and creative scaffolding intersect: "The project overall made me understand music better and be more educated on how things outside of percussion work, and also how many songs are styled or made, and gave me an even more broader taste than the broad taste I already had" (Student 12, Questionnaire, Question 4). This statement encapsulates how scaffolded digital learning environments promote holistic musical growth. The student's learning was not limited to their instrument or to technical proficiency but encompassed structural understanding, stylistic diversity, and a deeper appreciation of the creative process.

Taken together, these examples from the student journals and questionnaire illustrate that students experienced growth in their musical competencies while working on this project because of scaffolded support and technological exploration. Structured opportunities and recommendations to explore tools, combined with ongoing feedback and reflective practice, allowed students to transform technological challenges into rich learning experiences. The data demonstrates that when creative autonomy and encouragement to engage with music technology are integrated into pedagogical design, students' growth in musical competencies is profound. Through the interplay of guidance and independence, students learned not only how to use the tools but how to think musically within them; an outcome that epitomizes capacity-building in contemporary creative music education.

The evidence presented across student journals, questionnaires, and field notes confirms that scaffolded support and technological guidance were essential in fostering students' creative capacity. Technical challenges, ranging from software limitations to audio production hurdles, were not merely obstacles but became meaningful learning experiences when paired with autonomy, peer collaboration, and responsive instruction. As students' competencies expanded, their ability to work independently within self-selected constraints mirrored descriptions of creative learning as internally directed, goal-constrained cognition developed over time rather than through rapid mastery (DeNora, 2016; Green et al., 2024). Students developed fluency in digital tools, resilience in problem-solving, and confidence in their musical decision-making. These are key tenants of RQ3 themes Growth in Musical Identity, Confidence, and Expression, and Creative Problem-Solving and Resilience. The learning growth that students experienced while working on this project aligns with recursive learnings M-M1, M-M3, M-CR2, M-R3, and M-R4 from the Manitoba music curriculum (Manitoba Education and Advanced Learning, 2015). These findings affirm that when students are empowered to explore technology within a supportive framework, they not only acquire practical skills but also deepen their engagement with music as a creative and expressive medium.

Synthesis of Findings

Overall, the findings across RQ1 and RQ3 reveal that the enactment of open-ended, scaffolded pedagogical strategies not only strengthened the implementation of the "Creating" essential learning component, but also fostered students' growth as autonomous, reflective, and resilient creative musicians. Taken together, these findings depict creative learning as a relational, process-oriented phenomenon shaped by agency, task design, and scaffolded support, echoing broader scholarship that frames musical creativity as an emergent practice rather than a

static outcome (Green et al., 2024; Randles & Webster, 2020). The design of this pedagogical innovation positioned students as central contributors in the learning process. By design, students were given autonomy to make self-directed creative decisions, criteria were co-created instead of pre-determined, outcomes were emergent, and reflection was ongoing and cyclical for students and the teacher alike. As such, the learning environment became one of shared inquiry and mutual growth. The intentional blending of structure and openness allowed students to move fluidly between guided instruction and independent exploration, demonstrating that pedagogical flexibility can serve as both a catalyst for creativity and a foundation for confidence-building. In these spaces of creative risk-taking, students discovered new dimensions of their musicianship and explored their musical identity while developing technical competencies alongside personal and expressive insight.

This reciprocal dynamic extended beyond student learning to encompass teacher growth as well. The iterative and dialogic nature of the project, where student feedback, experimentation, and reflection continually informed pedagogical decisions, reshaped my role from that of instructor to co-learner. Observing students' evolving engagement and struggle with the creative process prompted me to adapt my approach to scaffolding and instruction to be more responsive to individual and collective needs. In this way, through this project, teaching became an act of creative inquiry. The evidence across data sources demonstrates that when creative pedagogy prioritizes autonomy, reflection, and collaboration, both students and teachers engage in an evolving process of transformation. Students not only explored *how* to create music but also reflected on *why* it mattered to them, forging connections between musical expression, identity, and community. In turn, I learned how to more effectively cultivate environments where creativity can emerge organically and meaningfully within an ensemble-based setting.

Ultimately, the synthesis of findings from RQ1 and RQ3 underscores that deep engagement in creative music learning arises when pedagogy is open, relational, and responsive. Through the interplay of project design, instructional strategies, and student agency, the classroom became a living model of how the “Creating” essential learning component envisioned in Manitoba’s curriculum framework can be addressed meaningfully and deeply intertwined with the “Making”, “Connecting”, and “Responding” components—an environment where musical ideas, identities, and relationships are developed and explored as individuals and in community. By valuing process over product and reflection over replication, this action research study demonstrates that creative learning in the ensemble context can transcend traditional boundaries, positioning both students and teachers as co-authors in an ongoing narrative of musical growth and discovery.

Chapter 5: Assessing Creative Engagement Using Signposts of Breadth, Depth, and Transformation

This chapter examines the work of selected participants through the lens of assessment in relation to the signposts of learning as described in the *Grades 9 to 12 Music: Manitoba Curriculum Framework* (2015). This was the focus of RQ2: How can I assess (for/of/as) the “Creating” recursive learnings using the dimensions of breadth, depth, and transformation as outlined in Manitoba’s conceptual framework for music learning growth?

Challenges of assessing creative work. The primary purpose of this study was to actively examine, reflect upon, and improve my teaching practice related to the “creating” music component of the *Grades 9 to 12 Music: Manitoba Curriculum Framework* (2015) within the context of the other components. Embedded within this purpose was the opportunity to explore possibilities for the assessment of the creative work completed by my students in large ensemble music classes. As demonstrated in the literature review, assessing creative work in music education is challenging. Also, it is important to reiterate that the Manitoba curriculum framework tasks teachers with assessing recursive learnings relating to creativity as opposed to the creative products themselves.

Traditional assessment structures in public education typically involve collecting student work, marking the work and possibly providing feedback or commentary, and returning the work to the student. Assessment practices across the board in public education are evolving, with current emphasis on triangulation of observations, conversations, and products to provide the most robust and meaningful assessment (Government of Manitoba, n.d.; Hebert & LeNouail, 2023). This pedagogical innovation was designed to allow for ongoing assessment of student engagement with the recursive learnings of the “Creating” area of the curriculum, and it

prioritized engagement with the creative process to inform creative learning growth over assessing the quality of the product. Student work and engagement was assessed for creative learning growth. The signposts of learning, BDT, as described in *Grades 9-12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015) were integrated into the project design as conceptual elements as well as parameters for assessment for, of, and as learning. The signposts were introduced and explored through class discussions and journal reflections. Students were encouraged to consider these signposts of learning throughout this project and had frequent opportunities to self-assess their progress against them. The creative works that my students produced were assessed for creative learning growth using a rubric (Appendix D) which was derived from the signposts and associated with the three Creative recursive learnings. Analysis of the data with respect to RQ2 revealed three emerging themes which align with the signposts of learning: Theme 4: Breadth through Diverse Tools, Genres, and Perspectives, Theme 5: Factors Impacting Depth of Creative Music Growth, and Theme 6: Flexible and Student-Centered Assessment Practices Promote Student Agency.

The assessment of creative learning growth is a process which varies from student to student based on several factors. As such, findings will be presented by examining assessment profiles of selected participants from the study. The four selected student participants represent a diverse range of creative engagement, reflection, and growth trajectories which illustrate all three RQ2 themes across different learning contexts and stages of development. These participant profiles were created by considering evidence drawn from the journal and questionnaire data in combination with field notes regarding assessment, previous general knowledge of and experience teaching high school music, teacher feedback provided by the co-created rubric, and the final creative product of each student. This approach aligns with research that frames

assessment of creative music learning as a formative, descriptive process focused on students' intentions, decision-making, and development over time rather than on comparative judgments of product quality (Bolden & DeLuca, 2022; Hatch, 2023). Within this perspective, BDT offer signposts for noticing how creative thinking unfolds as students explore ideas, refine decisions, and meaningfully reframe their musical understanding (Green et al., 2024). The profiles are presented below, structured according to the RQ2 themes, citing relevant evidence as necessary.

Assessment Profile – Student 3

Theme 4: Breadth through Diverse Tools, Genres, and Perspectives. Student 3 consistently explored a wide range of musical tools, genres, and cultural influences. From the beginning of the project, it was evident that this student had a diverse interest in music and was invested in creating through regular engagement with generating ideas and revisiting them. Their earliest journal entry indicated their interest in a wide variety of genres and the capacity to generate ideas: "I'm thinking of ideas that I want to do for a creative project that I haven't done before" (Student 3, Journal Entry, October 10). This ideation was followed by a diverse list including multiple styles and modes "Ideas: Do a cumbia cover and record a dance; Record a voice acapella cover; Record a Mexican inspired piece of music; Do a jazz cover and improv on saxophone; Arrange an orchestral piece; Arrange a jazz piece." (Student 3, Journal Entry, October 10). Later there is evidence that this young musician was generating ideas and setting them aside for later consideration: "I'm considering arranging or creating pieces in Muscore but the genre I want to work in is undecided. Jazz or Classical are the main genres that I want to work with but I'm also considering soundtrack-type music" (Student 3, Journal Entry, October 14) and "I've already begun composing two pieces on MuseScore, but I don't know if I will use either of them" (Student 3, Journal Entry, October 19). They also expressed interest in

collaborating with a peer for the project along with a desire to continue creating on their own. Their journal reflections detail creative engagement with MuseScore, a cappella performance, collaboration, interdisciplinary work (music and dance), voice-overs, and video editing, revealing a highly multimodal approach to creating music. They referenced both classical forms and Colombian traditional music, drawing on heritage as an inspiration for melody and rhythm. Another idea that the student had was to integrate music and dance in an interdisciplinary display: “I have plans to start a second personal creative project where I record a traditional Colombian song cover and make a music video to go along with it.” (Student 3, Journal Entry, November 25) and “In the music video, I want footage of me playing guitar and doing traditional Colombian dances with my mom. I have all my traditional wear; I just need ideas of what to record.” (Student 3, Journal Entry, December 1). This idea integrates cultural heritage, visual storytelling, and live performance, highlighting the breadth of Student 3’s engagement beyond conventional music composition.

By the end of the project timeframe, Student 3 produced two complete works: one a cappella cover of *Dr. Finkelfracken’s Cure* overlaid on a video of the *Geometry Dash* level *Ashley Wave Trials* (individual project) and a multi-movement classically inspired chamber work for oboe and string quartet nearly seven minutes long (collaborative project with one other student). The contrast between these two works exemplifies Theme 4, since the student engaged with multiple modes of music creation and output. This engagement across styles and media reflects not only technical versatility but also cultural breadth, demonstrating the recursive learning outcome M-CR1 (Generate, develop, and refine ideas) in a multidimensional way. At the completion of the project, Student 3 reflected on the impact this project had on their understanding of music and its place in their life:

I have taken a special interest in music theory and classical music conventions; they have allowed me to expand my knowledge of the science and history of music through a European lens. Music is an integral part of my life, as it makes part of who I am as a person. (Student 3, Questionnaire, Question 4)

This brief yet rich response demonstrates the deep impact that work on this project had on this young person's perspective on music and their growth in musical competencies and in musical identity. Student 3's deepening engagement with music theory and stylistic conventions reflects breadth in their creative and analytical thinking. Their reference to exploring music "through a European lens" indicates openness to diverse perspectives and critical engagement with tradition, a hallmark of breadth in Manitoba's model of learning growth.

Student 3's journal demonstrates breadth as articulated in *Grades 9-12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015) through an expansive engagement with diverse tools, genres, and perspectives. In alignment with M-CR1 (Generate and Develop Ideas), the student consistently explored multiple entry points into creativity, drawing inspiration from classical, jazz, and Latin traditions, while also experimenting across digital and acoustic media. Their early entries reveal a sustained curiosity toward different modes of musical creation, whether composing in MuseScore, recording a cappella vocals, or integrating traditional Colombian dance and costume into a multimedia music video. This exploration reflects the open-ended and iterative idea generation encouraged by this recursive learning. Through M-CR2 (Experiment, Reflect, and Revise), the student's creative process broadened further: they describe cycles of trial and error, collaboration, and reworking, showing how experimentation across genres and technologies facilitated self-assessment and artistic growth. Finally, in M-CR3 (Present and Share Creative Work), breadth is evident in this young

musician's capacity to synthesize cultural identity, performance, and technology into expressive outcomes, producing not only scores but recorded performances and video projects that communicate musical meaning through multiple modalities. Collectively, these practices illustrate how the open-ended design of this project enabled the student to think musically across boundaries, embracing the interconnectedness of form, culture, and technology that defines breadth within Manitoba's conceptual framework for creative music learning.

Theme 5: Factors Impacting Depth of Creative Music Growth. Student 3's journal and questionnaire responses revealed a sustained and increasingly sophisticated engagement with the creative process, characterized by curiosity, iteration, self-reflection, and personal meaning-making. Early in the project, they described how their creativity often emerges from curiosity and experimentation:

Often, it is either my curiosity of how I can recreate a cool sound I heard with my instrument, or it's an idea that I come up with just as a chord progression or melodic idea that I put in Musescore that gets me playing and making music. (Student 3, Journal Entry, October 17)

This reflective curiosity established a foundation for depth, showing that their process began not from external prompts but from an intrinsic drive to explore sound and expression.

As their project developed, Student 3 demonstrated increasing conceptual and analytical depth. Reflecting on production techniques observed in music they enjoy listening to, they wrote: "I find the reverbed and reversed sample used in the song is very chilling and gives off this psychedelic feeling... I think this way of creating music is cool, and a method I will be using for this project" (Student 3, Journal Entry, October 23). Here, they moved beyond imitation to adaptation, drawing on professional models to inform their own creative methods. Their

reflection on assessment “Did they plan effectively? Did they try to execute it how they wanted it to be... Was there a learning curve involved? Did they learn something from creating?” (Student 3, Journal Entry, November 1) further illustrates metacognitive awareness, as the student critically examines what meaningful effort and growth entail within a creative process.

Throughout their journal, depth is also visible in this student’s iterative approach and perseverance. They referred to multiple compositional attempts: “I’ve already begun composing two pieces on Muscore, but I don’t know if I will use either of them... Since last Saturday, I’ve already begun composing another piece... it’s definitely my ‘most out there’ composition yet” (Student 3, Journal Entry, October 25). Later, they recounted overcoming technical limitations: “Editing was a challenge simply due to what I was trying to accomplish with what is basically caveman software but after 5 hours of non-stop editing, it’s done” (Student 3, Journal Entry, November 14). These excerpts capture the recursive nature of deep learning: trial, revision, persistence, and eventual mastery through self-directed problem-solving.

Depth is also exemplified in Student 3’s growing integration of identity, culture, and artistry. Their plans to record “a traditional Colombian song cover and make a music video to go along with it,” including “footage of me playing guitar and doing traditional Colombian dances with my mom,” (Student 3, Journal Entry, November 25) demonstrate an emerging synthesis of personal, familial, and cultural expression. This project transcends technical proficiency, situating creativity within authentic lived experience. Similarly, their engagement with classical repertoire to “incorporate countermelodies and avoid too many parallel octaves and fifths” (Student 3, Journal Entry, December 12) shows a commitment to refining their compositional technique through intentional listening and analysis.

By the project's end, Student 3's reflections revealed transformative depth and a mature artistic self-awareness: "A lot of trial and error, many ideas trashed, and roadblocks a-many, but it's done... This was a piece where we didn't really follow any rules" (Student 3, Journal Entry, January 3). In embracing creative risk and unorthodox expression, they articulate a sense of ownership and liberation central to artistic depth. Their questionnaire response reinforced this transformation: "I have found myself to be a very passionate student musician, with this creative project allowing me to fulfill some musical desires that I would not have otherwise realized" (Student 3, Questionnaire, Question 1).

These examples taken together from Student 3's journal creative journey exemplify the depth dimension within Manitoba's "*Creating*" recursive learnings (M-CR2)—reflecting an ongoing process of exploration, critical reflection, and evolving artistry. Their growth moves from curiosity and experimentation toward a reflective, culturally grounded, and self-directed creative practice that embodies both technical sophistication and personal transformation.

Theme 6: Flexible and Student-Centered Assessment Practices. Student 3's journal demonstrates a strikingly mature and nuanced understanding of assessment as a flexible, student-centered process that supports agency, growth, and creative autonomy. Their reflections consistently reveal an awareness that creative work cannot be evaluated through rigid or uniform criteria. Early in their writing, they express this directly:

... it might be better to set a specific standard so that all students have fair game when creating their project. It's hard to derive different marking areas when each project is unique and created differently, so perhaps a rubric with a wide range of criteria but specific expectations for those criteria could do it. (Student 3, Journal Entry, November 1)

This statement highlights how deeply they recognize the diversity inherent in creative pathways and the need for an assessment structure that adapts to that diversity. Despite the contradiction in this example, the student is clearly demonstrating their understanding of the need for flexibility in assessment practice for this project.

Their reflections also emphasize the importance of valuing process over product, showing a sophisticated grasp of assessment for and as learning. In outlining what meaningful assessment might involve, they note:

“A quick solo thrown together at the last minute would get less effort marks than a video made with an original soundtrack... Did they plan effectively? Did they try to execute it how they wanted it to be... Was there a learning curve involved? Did they learn something from creating?” (Student 3, Journal Entry, November 1).

Here, the student articulates criteria rooted in effort, intentionality, and learning rather than technical polish alone, revealing an understanding of creativity as iterative, reflective, and experiential.

Alongside this attention to process, Student 3 also demonstrates an understanding of equitable and individualized learning expectations. They argue that “it is better that students reach the same goal in their own way rather than setting their own easy goals that they know they can reach effortlessly” (Student 3, Journal Entry, November 1). This comment demonstrates their belief that while pathways may differ, all students should be challenged meaningfully and supported equitably; a perspective closely aligned with student-centered assessment models which honour both autonomy and accountability. Their awareness extends to the complexity and subjectivity inherent in evaluating creativity. They acknowledge that “this whole idea of criteria is nuanced and full of grey area...” (Student 3, Journal Entry, November 1) demonstrating an

emerging meta-awareness of assessment as interpretation rather than measurement. This view aligns with flexible assessment practices that require teacher judgment, conversation, and co-construction of meaning.

In response to prompts given in class, Student 3 also connects their thinking to the signposts of learning as described in Manitoba’s conceptual framework for learning growth, proposing that “these questions could be used as a basis for creating a rubric in context with BDT.” (Student 3, Journal Entry, November 1). This feedback indicates agency in shaping how assessment could authentically support creative learning; an explicit enactment of M-CR3, which emphasizes reflection, refinement, and active student involvement in evaluating creative processes. Their questionnaire response echoes this reflective mindset, particularly in relation to self-regulation during challenges: “Roadblocks in trying to progress the piece... I would take a couple days off... so that I could come up with fresh ideas and look at the piece with less recency bias.” (Student 3, Questionnaire, Question 4). This demonstrates an internalized form of assessment as learning; recognizing when to pause, reassess, and return with a clearer perspective.

Taken together, Student 3’s reflections reveal a learner who not only participates in assessment but actively conceptualizes how it should function to support authentic creative growth. Their insights show that flexible, student-centered assessment practices not only promote agency but also deepen students’ engagement with reflection, effort, and artistic intention.

Assessment Profile – Student 6

As reported previously, Student 6 was very enthusiastic about this project, evidenced by their verbose and descriptive writing about their experience. In their journal, they described

making decisions about what they planned to do, doing research on, and technology in the summer before the school year began – illustrating a good connection between informal music learning at home and formal music learning at school (Green, 2017). Student 6’s creative music project, an arrangement and vocal-synth cover of *A Night to Remember* by Laufey and Beabadoobee, reveals a learner who demonstrates remarkable breadth, depth, and agency within a specialized and highly technical creative domain. Their work exemplifies Manitoba’s Creating recursive learnings (M-CR1, M-CR2, and M-CR3) through exploration, refinement, and critical reflection on both process and product.

Theme 4: Breadth through Diverse Tools, Genres, and Perspectives. The project that Student 6 developed is highly specific in nature due to the niche area of music production in which they choose to operate. As such, their project demonstrates depth of learning more than breadth of learning. However, Student 6 still exhibits considerable breadth by engaging extensively with the global culture of vocal synthesis and by employing a wide range of digital tools, technologies, and musical approaches. Even before the semester began, they had already begun researching and experimenting with Vocaloid software, describing how they “started my project around the end of summer... learning how the program works and experimenting with the different tuning parameters” (Student 6, Journal Entry, September 18). Their understanding of this technological ecosystem is extensive. They explain that “there are many different voice synthesizer programs... such as SynthV... and UTAU” (Student 6, Journal Entry, September 18), and they shift platforms as needed, noting, “I initially tried to use UTAU... but my laptop wasn’t really running it well, so I switched to SynthV” (Student 6, Journal Entry, September 18).

Breadth is also demonstrated through self-directed research, as they describe “watching a bunch

of videos about how to tune on SynthV” (Student 6, Journal Entry, November 7) to broaden their technical fluency.

Equally noteworthy is the cross-linguistic breadth of their work. Because the free voicebank they used (Kasane Teto) contains only Japanese language, they developed a detailed process for adapting English lyrics to fit its constraints: “I have to syllabicate all her lyrics using sounds that exist in the Japanese language... If I input any sort of sound that doesn’t exist in Japanese, her voicebank can’t read it and she just stays silent” (Student 6, Journal Entry, October 8). In their questionnaire, they further explain that they had to “syllabize the English lyrics using Japanese syllables... to make her sound like she was singing in English” (Student 6, Questionnaire, Q2). This linguistic and cultural negotiation reveals a sophisticated engagement with global music-making practices that few high-school students even consider.

Breadth also appears through the multiplicity of musical voices, timbres, and stylistic references they employ. Their arrangement uses two contrasting voicebanks; “Teto has Beabadoobee’s part, and ASTERIAN has Laufey’s” (Student 6, Journal Entry, September 18) and they deliberately explore their distinct sonic characteristics: “I thought it would be nice to have them sing some parts of it separately... to highlight and contrast their individual voices” (Student 6, Journal Entry, September 26). Student 6 also positions their project within Vocaloid culture more broadly, explaining that “The Vocaloid/vocal synthesis community and its music are very niche, but still somewhat known” (Student 6, Journal Entry, September 18), and reflecting on their long-term personal connection to the genre: “I’ve listened to Vocaloid music since I was in like grade 6, and I’ve always wanted to make a Vocaloid song of my own” (Student 6, Journal Entry, October 17).

Finally, their writing reveals a clear and growing metacognitive understanding of breadth itself. They explain that “Breadth means how large our range is in terms of our ideas and knowledge of music... or the diversity of musical ideas used” (Student 6, Journal Entry, December 20) and express an eagerness to expand their creative range further in the future by using new voicebanks and “do[ing] an English version of a Japanese song... and write my own lyrics” (Student 6, Journal Entry, December 12). Through these choices, Student 6 demonstrates both enacted breadth and a forward-looking desire to continue broadening their artistic horizons.

Student 6’s journal demonstrates breadth as articulated in the *Grades 9–12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015) through their extensive engagement with diverse digital tools, cross-linguistic processes, and genre-specific creative practices. In alignment with M-CR1 (Generate Ideas), the student explores multiple pathways into creativity by working across several vocal-synthesis applications (SynthV, UTAU, and Vocaloid) and by experimenting with varied voicebanks, each with distinct timbral and expressive qualities. Their project emerges from a rich foundation of personal listening, cultural immersion, and long-standing engagement with Vocaloid music, reflecting an expansive and informed approach to idea generation. Through M-CR2 (Experiment, Develop, and Use Ideas), the student’s breadth becomes even more apparent as they navigate a complex cross-linguistic creative process, describing how they “syllabicate all her lyrics using sounds that exist in the Japanese language” (Student 6, Journal Entry, October 8), and adjust tuning, parameters, and vocal textures through cycles of research, trial-and-error, and iterative refinement. Their willingness to shift tools, troubleshoot limitations, and explore expressive possibilities within synthesized voices reflects a broad and adaptive creative stance. Regarding M-CR3 (Revise, Refine, and Share Creative Work), the student synthesizes their diverse

influences — technology, genre knowledge, linguistic adaptation, and digital timbre design — into a polished vocal-synthesis cover that communicates musical meaning through carefully curated sounds. Collectively, these practices illustrate a sophisticated form of breadth; the student thinks and creates across platforms, languages, aesthetics, and identities, exemplifying the interconnected, exploratory nature of breadth within Manitoba’s conceptual framework for creative music learning (Manitoba Education and Advanced Learning, 2015).

Theme 5: Factors Impacting Depth of Creative Music Growth. Depth is a defining characteristic of Student 6’s assessment profile. Their project is rooted in deliberate, sustained technical inquiry that began months before the assignment officially started. They write, “I spent most of my time working on this in the summer as an opportunity to learn how the program works” (Student 6, Journal Entry, September 18), indicating early and intentional immersion in the creative medium. Depth is also evident in how they rethink their workflow to improve efficiency and artistic coherence: “it’ll be more efficient for me to notate the music first and then tune afterwards, cause that’s... finicky” (Student 6, Journal Entry, September 18). These strategic decisions reflect growing mastery over a complex process.

Their engagement with linguistic, technical, and expressive complexity further demonstrates depth. The student approaches syllabication challenges not as barriers but as opportunities for problem-solving grounded in understanding: “If I input any sort of sound that doesn’t exist in Japanese... she just stays silent” (Student 6, Journal Entry, October 8). When tuning produces unintended timbral results, they refine their choices with nuance: “when I tune her louder, her voice gets a bit harsh... so I’ve mellowed it out by lowering her tension” (Student 6, Journal Entry, November 7). Similar refinement appears in their treatment of breath sounds, where they “turned up their volume and breathiness” (Student 6, Journal Entry, November 23)

after finding them too quiet. These reflections reveal a recursive learning cycle of listening, evaluating, and revising in iterative cycles; central tenants of M-CR2.

Previously in these findings, it was demonstrated that technical challenges often deepen a student's learning, and that is clearly the case here. When their laptop repeatedly crashes while processing the SynthV software, Student 6 adapts by developing new strategies: "I pause every few seconds while I'm listening to the playback so the audio can load" (Student 6, Journal Entry, November 27). This resilience reflects both practical problem-solving and an understanding that complex creative work often requires persistence. The student also articulates depth through self-assessment within the BDT framework, stating, "I know that I'm good on 'Depth,' as I've researched a whole bunch... and put in blood, sweat, and tears to make this project come to fruition" (Student 6, Journal Entry, December 20). Their questionnaire supports this, describing growth through "learning new skills... and adapting to obstacles" (Student 6, Questionnaire, Q1).

Together, these excerpts portray a student who engages deeply with both the artistic and technical dimensions of vocal synthesis, demonstrating iterative refinement, sustained inquiry, and thoughtful meaning-making throughout their creative journey. Student 6's journal demonstrates depth as articulated in *the Grades 9–12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015) through sustained inquiry, technical refinement, and increasingly sophisticated artistic decision-making. In alignment with M-CR1 (Generate Ideas), the student's depth of learning emerges from deliberate preparation and research-driven curiosity; spending the summer familiarizing themselves with the Vocaloid platform before the project even began. This foundation of inquiry reflects a commitment to developing complex ideas over time rather than engaging superficially with a new tool. Through

M-CR2 (Experiment, Develop, and Use Ideas), the student's depth becomes more pronounced as they navigate intricate technical and linguistic challenges inherent to vocal synthesis. Their reflections reveal iterative refinement, adjusting parameters of music production including timing, dynamics, vibrato, and phonetic shaping. Such entries illustrate a recursive creative process grounded in attentive listening, problem-solving, and increasingly nuanced control of expressive parameters. The student's persistence in adapting workflow, troubleshooting software limitations, and revising sections repeatedly aligns with the reflective and revisory practices emphasized in M-CR2. Finally, in M-CR3 (Revise, Refine, and Share Creative Work), depth is evident as the student situates their work within broader artistic and cultural contexts, connecting their project to long-standing engagement with Vocaloid music and articulating how their technical decisions shape emotional expression. Their recognition that subtle changes can drastically alter the overall effect of a piece demonstrates an emerging interpretive sensitivity essential to the presentation of creative work. Collectively, Student 6's practices illustrate depth as a recursive, reflective, and technically rich engagement; one that exemplifies how sustained inquiry and iterative refinement support increasingly sophisticated creative thinking within Manitoba's conceptual framework for music learning.

Theme 6: Flexible and Student-Centered Assessment Practices. Throughout their journal, Student 6 demonstrates a strong sense of agency and self-regulation, repeatedly making independent choices guided by reflection rather than external instruction. Their decision to restructure their workflow; "it'll be more efficient for me to notate the music first and then tune afterwards" (Student 6, Journal Entry, September 18) shows assessment as learning, where students use reflection to guide future action (Dann, 2014). They exhibit similar autonomy when choosing tools: "I initially tried to use UTAU... but my laptop wasn't really running it well, so I

switched to SynthV” (Student 6, Journal Entry, September 18). These choices reveal a learner who actively shapes the process and makes responsive decisions based on their experiences in real-time rather than passively waiting for direction.

Their work also demonstrates ongoing internal feedback processes, critiquing their own output, identifying areas for improvement, and implementing revisions independently. They consistently analyze the musical and technical quality of their work, describing adjustments made to improve clarity or alignment with artistic goals. For example, when vocal tuning becomes unpleasant and harsh at higher volumes, they explain, “I’ve mellowed it out by lowering her tension” (Student 6, Journal Entry, November 7). When confronted with inconsistent breath sounds, they evaluate the cause and refine their process: “I noticed how quiet the breaths were... so I turned up their volume and breathiness” (Student 6, Journal Entry, November 23). These edits reflect deliberate artistic decisions rooted in thoughtful listening and conceptual understanding.

Student 6 also seeks out meaningful feedback from peers when necessary, demonstrating agency in selecting appropriate sources. They articulate the limits of relying on family members for musical critique: “my parents don’t understand Vocaloids... my younger sister doesn’t like any music that isn’t in English or Tagalog” and conclude that “I’ll probably ask somebody in band class lol” (Student 6, Journal Entry, September 26). Later, they reference sharing the project with classmates to refine harmonic decisions in the final chorus (Student 6, Journal Entry, December 20). This shows a student who not only values feedback but seeks it out with intention and purpose from meaningful sources.

Finally, their reflections on rubric design reveal an advanced understanding of fair and equitable assessment. In response to an in-class prompt about rubric design, this student argued

that creative projects should be evaluated using criteria that apply to *all* students without privileging certain skill sets, stating “we shouldn’t be judging them on ‘who’s sounded the best’ or ‘who’s had the most instruments’... the point of this project is to have put effort into doing something creative” (Student 6, Journal Entry, November 1). These statements reflect a mature understanding of assessment for learning, recognizing that criteria must reflect individual creative processes rather than comparative performance. Their ability to evaluate their own work within the framework of the signposts for learning, “I know that I’m good on ‘Depth’...” (Student 6, Journal Entry, December 20), further highlights their developing autonomy, agency, and capacity for meaningful self-assessment.

Student 6’s journal demonstrates student agency and assessment literacy as articulated in the *Grades 9–12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015) through flexible, reflective, and self-directed approaches to the creative process. With respect to M-CR1 (Generate Ideas), the student exercised autonomy from the outset, selecting their tools, reorganizing their workflow, and making strategic decisions such as switching from UTAU to SynthV when they recognized limitations in efficiency. These choices highlight a learner who actively shapes their creative environment rather than passively responding to assignment parameters. Through M-CR2 (Experiment, Develop, and Use Ideas), Student 6’s agency becomes deeply evident as they employ assessment-as-learning practices to refine their work. Their journal reveals a constant internal feedback loop—adjusting tension, dynamics, timing, and breathiness based on critical self-evaluation, and independently identifying when and how to seek external feedback. This reflective decision-making illustrates a flexible approach to assessment that supports iterative growth. Finally, with respect to M-CR3 (Revise, Refine, and Share Creative Work), the student demonstrates an emerging understanding

of equitable and student-centered assessment, articulating that creative projects should be evaluated on engagement, process, and individual intention rather than comparative technical output. Their reflections on rubric design show a nuanced grasp of how assessment can either empower or constrain creativity, aligning with the curriculum's vision of assessment as a tool for cultivating self-awareness and artistic independence. Together, these practices illustrate how the open-ended structure of the project enabled Student 6 to engage meaningfully with assessment for, of, and as learning, fostering a strong sense of ownership and agency within Manitoba's conceptual framework for creative music learning.

Assessment Profile – Student 9

Student 9 was concise in their journal entries and questionnaire responses. However, their journal responses are undated, so it was harder to evaluate their workflow over the course of the project. They also indicated indirectly that their final project was created collaboratively with another student. In any case, their writing is clear and provides another lens to consider the learning dimensions of BDT in relation to this project. Student 9's final product was an arrangement of *Merry-Go-Round of Life* from the soundtrack of *Howl's Moving Castle* produced by the Japanese anime company Studio Ghibli. Their arrangement was created in a music notation application called *Notion 6* and was written for French horn and Tuba. The piece is short, focusing on the introduction and the opening theme of the original work. It is also worth noting that their arrangement is not playable by two musicians on horn and tuba, as it contains many instances of multiple notes at a time in both parts of the duet. As such, the piece was never performed live, but referenced as an audio-only performance of the work produced by the software it was written in. In any case, Student 9's final product in combination with their journal and questionnaire responses reveal the journey of a learner demonstrating growth in all three

areas of BDT within the context of their engagement with the creative process over the course of this project. The recursive learnings M-CR1, M-CR2, and M-CR3 can be observed in their work and self-reflections.

Theme 4: Breadth Through Diverse Tools, Techniques, and Perspectives. Student 9 demonstrates breadth in their creative music learning through their engagement with a wide range of musical elements, arranging decisions, and interpretive strategies. Much of this breadth is evident in their adaptation of a piece originally written for piano into a duet for French horn and tuba—a process requiring them to think across instrumental roles, timbres, and ranges. They describe how they and their partner “transposed the piece from piano to French horn and tuba” (Student 9, Journal Entry, undated) and “added dynamics and accents to make it more expressive,” (Student 9, Journal Entry, undated) highlighting their exploration of multiple musical elements beyond simply transferring notes. Breadth also appears in their collaborative learning, as they noted that another group had “changed the rhythm slightly to fit their instruments better” which helped them recognize how “small changes can make a big difference in how a piece sounds” (Student 9, Journal Entry, undated). This engagement with multiple approaches and ideas reflects flexible thinking and awareness of creative possibilities.

Their understanding of breadth becomes explicit when they articulate how it functions within the rubric: “Breadth... looks at how many musical elements we included, like dynamics, articulation, and structure” (Student 9, Journal Entry, undated). By naming these components, Student 9 shows a conceptual understanding of how diverse musical tools contribute to creative expansion. They also demonstrate breadth through their sources of inspiration, referencing the classic song *Yellow Submarine* by the Beatles as an entry point for thinking about how composers begin with a small idea, such as melody, mood, or rhythm and then build outward.

They extend this thinking to their own creative process, recognizing that they can “take a song I like and change it in some way... switching instruments, altering the rhythm, or adding my own style to it.” (Student 9, Journal Entry, undated). Their reflections demonstrate comfort with drawing on diverse musical perspectives, personal experiences, emotional expression, and peer ideas to shape and broaden their creative decisions.

Student 9’s journal, questionnaire, and final project demonstrate breadth as articulated in the *Grades 9–12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015) through their exploration of musical tools, techniques, and interpretive strategies throughout their engagement with the creative process. In alignment with M-CR1 (Generate Ideas), the student expands their creative thinking by reimagining a piano work as a duet for French horn and tuba, a shift that required reconsidering roles, timbres, ranges, and musical functions. Their decisions about how they should transpose the piece and include expressive elements show how idea generation is involved far more than note transfer, reflecting an ability to draw from multiple entry points, instrumental color, expressive intent, and structural considerations. Through M-CR2 (Experiment, Develop, and Use Ideas), Student 9’s breadth becomes more evident as they engage with multiple interpretive possibilities, recognizing through peer observation that “small changes can make a big difference in how a piece sounds.” This flexible thinking demonstrates their willingness to explore alternative rhythms, adjust balance between voices, and refine musical ideas in response to both challenges and emerging insights. Finally, in alignment with M-CR3 (Revise, Refine, and Share Creative Work), their reflections reveal an ability to situate their creative decisions within broader musical perspectives. By referencing *Yellow Submarine* and considering how composers might start with mood, rhythm, or melodic fragments, Student 9 demonstrates a level of comfort in drawing on

varied stylistic and experiential sources to inform their musical identity. Collectively, these practices illustrate how the student used this project to think musically across boundaries such as instrumentation, genre, expressive intention, and collaborative insight while demonstrating the expansive creative engagement that defines breadth as defined within Manitoba's framework for creative music learning (Manitoba Education and Advanced Learning, 2015).

Theme 5: Factors Impacting Depth of Creative Music Growth. Student 9

demonstrates depth in their creative work through sustained refinement, detail-oriented thinking, and an emerging understanding of how musical decisions accumulate into expressive coherence. They describe engaging deeply with expressive elements of music of which are key aspects of M-CR2, explaining that “depth is about how detailed and refined our work is... thinking about phrasing, balance, and expression” (Student 9, Journal Entry, undated). Their arranging process required them to think critically about instrument capabilities and how the original piano texture should be reimagined for their arrangement. They identify challenges such as balancing melodic and harmonic roles, noting that “we had to figure out how to divide the parts so that both instruments were contributing without one overpowering the other” (Student 9, Journal Entry, undated). Their solution was to experiment with dynamics, part-sharing, and octave placement, revealing careful, iterative refinement.

Depth is also evident in their handling of range limitations: “Some notes were too high or too low, so we had to make small adjustments... experimenting with different octaves and sometimes modifying rhythms slightly to make it smoother” (Student 9, Journal Entry, undated). These decisions demonstrate thoughtful problem-solving beyond simple technical adjustment as they aimed to preserve the musical identity of the piece while adapting it for different instruments. Their reflections in the questionnaire further reveal metacognitive depth as they

recognize their growth in creativity and structure, stating that the project “pushed me to think more creatively and explore new ways to express myself” and that they learned they are “capable of composing and arranging music in ways I hadn’t considered before” (Student 9, Questionnaire, Q1). Lastly, Student 9 acknowledges the need to balance creativity with cohesion, illustrated when they describe moments of “struggle to organize ideas into a cohesive piece” (Student 9, Questionnaire, Q2) which they addressed through listening to other music for inspiration, demonstrating recursive, reflective learning as described in M-CR2.

The journal, questionnaire, and work of Student 9 data also reveal considerable depth in their creative process, aligning closely with the developmental expectations of M-CR2 (Experiment, Develop, and Use Ideas) within the Manitoba curriculum framework (Manitoba Education and Advanced Learning, 2015). Depth emerges through their careful attention to detail, their willingness to revisit musical ideas, and their thoughtful navigation of the technical and expressive demands of arranging. When describing how depth operates within their rubric, they explain that it involves working with detailed and refined musical choices and considering phrasing, balance, and expression, illustrating an understanding that sophisticated music-making requires more than simply assembling notes. This perspective is clearly reflected in their arranging decisions, particularly when they describe the challenge of redistributing a piano texture for French horn and tuba. Their efforts to determine “how to divide the parts so that both instruments were contributing without one overpowering the other” demonstrate an emerging grasp of musical structure, balance, and instrumental capabilities. These are core indicators of depth in creative work.

Further depth is demonstrated through their problem-solving approach to range and register issues. Student 9 describes experimenting with octaves and making small rhythmic

adjustments when notes fell outside the comfortable range of either instrument, showing that they were not only addressing technical limitations but also striving to maintain the musical character of the original piece. These revisions required repeated listening, evaluation, and refinement, reflecting recursive learning in action. Their questionnaire responses further affirm this emerging depth, as they describe being pushed to think more creatively and learning that they can compose and arrange music in new ways. They also articulate moments of difficulty, which they addressed by seeking new musical examples for inspiration, a strategic and reflective response consistent with deepening creative capacity. Through these experiences, Student 9 demonstrates the kind of iterative, detail-oriented engagement that characterizes depth in the recursive learnings for Creating in Manitoba's music curriculum framework (Manitoba Education and Advanced Learning, 2015), showing how sustained reflection and refinement shaped their musical understanding.

Theme 6: Flexible and Student-Centered Assessment Practices Promote Agency.

Student 9 demonstrates strong assessment literacy and personal agency, showing an ability to evaluate their own work, understand the purpose of assessment criteria, and articulate fair approaches to creative evaluation. They advocate for consistent yet flexible assessment practices, explaining that “we should use the same rubric for everyone... but if different groups have really different projects, maybe the rubric could have some flexible parts to fit each project better” (Student 9, Journal Entry, undated). This shows an understanding of fairness as well as the need for adaptability in assessing diverse creative pathways, both of which are key principles of student-centered assessment.

Their ability to apply the BDT framework reveals a sophisticated understanding of assessment structures as tools for reflection and learning rather than merely deriving a grade.

They describe each dimension in their own words, noting that Transformation involves determining “how much we changed and adapted the piece... did we make it our own, or just move the notes to different instruments?” (Student 9, Journal Entry, undated). This question demonstrates critical thinking about originality, adaptation, and the interpretation of creative intent. Student 9 also demonstrates confidence in communicating and explaining their musical decisions, stating that when presenting their work, “people seemed interested... I felt pretty confident talking about it because we put a lot of thought into our choices” (Student 9, Journal Entry, undated). This self-assuredness reflects the agency that emerges when students understand and internalize the assessment process.

Furthermore, Student 9 actively seeks learning from others’ perspectives, noting that hearing peers explain rhythmic modifications “made me think about how small changes can make a big difference” (Student 9, Journal Entry, undated). This shows the student using peer input as formative assessment, which is an important feature of assessment as learning. Their questionnaire responses reinforce this agency, as they reflect on independence; “reinforced my ability to work independently and trust my musical instincts” (Student 9, Questionnaire, Q1), problem-solving; “I took breaks to listen to different types of music for inspiration” (Student 9, Questionnaire, Q2), and the broader purpose of creative work; “music can be a tool for creativity and problem-solving, and... a form of self-expression” (Student 9, Questionnaire, Q4). These reflections reveal a learner who is increasingly self-directed, capable of assessing their own process, and mindful of how assessment structures can support meaningful growth.

Taken together these reflections illustrate how Student 9 embodies the spirit of flexible assessment practices, using assessment as an active, empowering part of their creative process rather than a passive requirement. Their journal shows that they approach assessment as

something that can clarify artistic intentions, guide meaningful revisions, and support independent decision-making. By advocating for rubrics that are both consistent and adaptable, they demonstrate an emerging understanding of assessment as a flexible framework that should honour diverse creative pathways while maintaining fairness. Their use of the BDT model further reinforces this agency, as they engage with the language of assessment to articulate what meaningful creative growth looks like in practice. Peer conversations, self-monitoring, and reflective questioning all serve as evidence that Student 9 is developing assessment literacy aligned with *assessment as learning*, a central component of M-CR3 and Manitoba's concept for student-centered creative music education. Ultimately, their capacity to evaluate their own decisions, articulate rationale, and seek out input when needed highlights a growing autonomy that positions them to continue developing as a reflective, self-directed young musician.

Assessment Profile – Student 11

Student 11 was descriptive and candid in their journal entries and questionnaire responses. They also indicated early on that they had very little prior experience composing music and that this whole project was new and challenging for them. This sentiment is evident throughout their journal and questionnaire responses. Student 11's work provides valuable insight from the perspective of an honest person with little prior experience with creating music with candor and clarity in their writing about engaging with creative process as they moved toward their final product. Student 11's final product was an original composition for solo piano, with audio supplied by the software in which the piece was composed. This young musician's final product, considered alongside their journal and questionnaire responses represents the journey of a learner who is new to creative work yet positioned themselves to be open to growing and learning throughout the project. The recursive learnings M-CR1, M-CR2, and M-

CR3 are clearly evident in their work and self-reflections, as is their growth in relation to the signposts of learning.

Theme 4: Breadth through Diverse Tools, Genres, and Perspectives. Student 11 demonstrates meaningful breadth in their creative process by drawing on a wide range of influences, tools, and musical sources to shape their composition. They begin by grounding their creative work in personal musical identity, describing how expressive piano pieces motivate them: “I enjoy playing slower songs that allow me to express emotion through dynamics, tempo... I don’t have to play exactly what’s written” (Student 11, Journal Entry, October 17). This awareness of expressive potential becomes an anchor for the ideas they generate and develop while composing their own piece for solo piano.

Breadth also emerges in their use of multiple tools and entry points for generating ideas. They “started goofing around with notes and rhythms on NoteFlight” (Student 11, Journal Entry, October 19) and use both digital tools and live performance possibilities to shape the work. They also draw from models, analyzing *Katherine* by Stephen Chatman, noting: “Lots of the parts of the piece that I enjoy are built on 6ths... which is what I tried to use to help start myself out.” (Student 11, Journal Entry, October 23). This indicates an intentional use of external musical sources as a springboard for creative exploration.

The student experiments with various strategies for developing their ideas, adjusting rhythms, expanding sections, and exploring options for transitions. Their breadth includes openness to evolving ideas, shown when they reconsider structural choices: “I think I want to add more to the B section... it’s pretty basic” (Student 11, Journal Entry, October 20). They also draw inspiration from peers, reflecting on another student’s attempt to ‘Christmasify’ a piece and shift time signatures, noting it “was a cool idea” (Student 11, Journal Entry, November 15).

These examples illustrate a breadth of perspectives, resources, and influences contributing to their creative development.

Finally, Student 11 articulates a sophisticated conceptual understanding of breadth in their own words: “Breadth means that you’re able to try out different ideas... be open-minded through the process... and understand where your ideas came from” (Student 11, Journal Entry, November 1). This metacognitive awareness highlights their ability to situate their work within the signposts of learning as described in Manitoba’s curriculum framework (Manitoba Education and Advanced Learning, 2015) and to recognize breadth as a dynamic and exploratory dimension of creative learning.

Student 11’s journal clearly demonstrates breadth in their creative learning. In keeping with M-CR1, they draw on varied influences such as expressive piano repertoire, structural ideas from Stephen Chatman’s *Katherine*, and inspiration from peers to spark and shape their composition. Their willingness to explore ideas in notation software, experiment with intervals and rhythms, and borrow expressive strategies from music they admire reflects an open, flexible approach to idea generation. Evidence of M-CR2 appears as they expand and adjust sections, troubleshoot transitions, modify dynamics, and return to earlier ideas with a reflective mindset. Their process shows active experimentation with multiple strategies to refine their work. Lastly, M-CR3 is demonstrated by their intention to perform the piece live and their engagement in sharing drafts and receiving feedback. Their own description of breadth as “trying out different ideas... being open-minded... and understanding where your ideas came from” highlights their growing metacognitive awareness. Overall, Student 11’s work illustrates broad engagement across tools, influences, and perspectives, all of which are key indicators of breadth in Manitoba’s signposts of learning (Manitoba Education and Advanced Learning, 2015).

Theme 5: Factors Impacting Depth of Creative Music Growth. Student 11

demonstrates substantial depth through sustained refinement, problem-solving, and detailed engagement with musical structures and expressive elements. Depth is most evident in their recursive work on transitions, structure, and expressive shaping. They describe persistent challenges with connecting sections: “It’s difficult to make it flow properly” (Student 11, Journal Entry, October 20), followed by multiple entries documenting continued efforts:

- I figured out something for one of the transitions... the other one I’m stuck on though... I’ll keep brainstorming. (Student 11, Journal Entry, October 22)
- I continued to try and find a transition... I think it sounds fine as it is, so I might just leave it. (Student 11, Journal Entry, October 24)
- I’ve been working towards making them cleaner by trying different things... it’s still not perfect. (Student 11, Journal Entry, November 27)

This ongoing cycle of reflection, adjustment, and revisiting demonstrates deep engagement with the recursive nature of musical creation and aligns directly with M-CR2 (generate and experiment) and M-CR3 (revise, refine, and share).

This student also shows depth through their attention to detail in expressive markings and musical nuance. They carefully apply dynamics, slurs, and tempo markings, while also navigating the limitations of digital playback: “I added more dynamic, tempo, and slur markings... I put them in to make the computer do what I wanted it to do” (Student 11, Journal Entry, October 24). When the program’s playback lacks nuance, they adapt by “over-exaggerating dynamics and markings” and plan to perform live to express musical intent more accurately (Student 11, Journal Entry, November 27). This reveals depth through technical awareness and expressive problem-solving. Analysis of musical models also contributes to the

student's depth of learning. They examine rhythmic patterns and intervallic structures in *Katherine*, noting the significance of a motivic rhythm and the prevalence of sixths (Student 11, Journal Entry, October 23). This form of analytical engagement aligns directly with M-CR3 and informs the student's own compositional decisions.

At the conclusion of the project, Student 11's questionnaire responses reinforce their growing depth as a composer. They reflect on the iterative nature of composing; "I kept trying new things until I found something I was somewhat happy with" (Student 11, Questionnaire, Q2), and recognize the technical and organizational demands of composition; "I've learned a lot about how to [compose music] and exactly what needed to be on the sheet music" (Student 11, Questionnaire, Q4). Their reflections reveal emerging confidence and an understanding that depth involves sustained effort, detailed attention, and iterative decision-making.

Student 11's work culminates in a clear demonstration of depth as outlined in Manitoba's signposts of learning (Manitoba Education and Advanced Learning, 2015), showing how sustained engagement, detailed refinement, and analytical decision-making shaped their creative growth. Across the project, they consistently returned to problematic sections, treating challenges not as obstacles but as catalysts for deeper exploration. Their willingness to keep brainstorming, revisit earlier solutions, and continue trying different approaches illustrates a recursive, reflective process aligned with M-CR2 and M-CR3, where ideas evolve through experimentation and revision. This depth extends to their handling of expressive nuance, as they refine dynamics, slurs, and tempo markings while navigating the limitations of digital playback, even choosing to "over-exaggerate" markings and consider performing their work live to better convey musical intent. Their analytical engagement with the piece *Katherine*, examining rhythms and the role of sixths, shows how they incorporate their conceptual understanding of musical ideas and theory

into their own work, deepening the musical logic of their composition. In their questionnaire responses, Student 11 affirms this growth, recognizing that composing required persistent trial and error and that they learned a lot about how to write music and how to notate it comprehensively. Together, these reflections confirm that depth for Student 11 is characterized by iterative refinement, careful attention to musical detail, and a growing capacity to think critically about their creative process.

Theme 6: Flexible and Student-Centered Assessment Practices. Student 11 shows strong agency and assessment awareness throughout their creative process, demonstrating the type of metacognitive growth expected in M-CR3. Their reflections reveal consistent self-monitoring and self-assessment. Early in their process, they acknowledge uncertainty: “I’m not 100% sure how I feel about it... I will need some feedback eventually” (Student 11, Journal Entry, October 19), and later, they evaluate progress in areas like transitions, beginnings, and endings. This internal feedback loop is characteristic of assessment as learning.

The student actively seeks feedback from peers and teachers at multiple stages. They describe showing their work to others and applying suggestions: “Pardeep [pseudonym] said to add dynamics... Kamal [pseudonym] said to work on transitions... I completely agree” (Student 11, Journal Entry, October 19 & 20). They also draw on peer impressions to refine aesthetic decisions—for example, using a classmate’s comment about the piece sounding like a “warm and sunny day” to help with choosing a title (Student 11, Journal Entry, December 9). Their selective, purposeful use of feedback demonstrates mature assessment literacy.

Student 11 also provides sophisticated reflections on rubric design and the nature of fair assessment in creative music learning. They argue for personalized rubrics based on project diversity: “Everyone’s project could be very different... we each should know where we are at

and what we need to improve” (Student 11, Journal Entry, November 1). They articulate the risks of overly specific rubrics limiting creativity and propose flexible structures: “The more specific the rubric is, the less creative freedom we’ll have” (Student 11, Journal Entry, November 1). They further demonstrate a strong grasp of the BDT model, clearly defining each component in relation to creative learning (Student 11, Journal Entry, November 1). This meta-awareness is evidence of a deep understanding of how assessment frameworks support artistic agency and growth.

Finally, the student reflects on their personal learning trajectory: “I looked forward to working on my project... I’ve decided that I would like to continue trying to create my own work” (Student 11, Questionnaire, Q1), as well as challenges and next steps: “I would like to work on different ways to start and end pieces” (Student 11, Questionnaire, Q2). This demonstrates that they are not only able to reflect on their growth but also identify future goals.

Student 11 demonstrates strong creative growth across all three Manitoba Creating recursive learnings. Aligned with M-CR1, they draw from a wide range of influences including expressive piano repertoire, personal experiences, musical models such as *Katherine*, digital experimentation in NoteFlight, and insights from peers to generate original material with notable breadth. Their work reflects M-CR2 through sustained, iterative engagement with transitions, structure, dynamics, and expressive nuance, revealing significant depth as they revise, rework, and refine their ideas over time. Finally, they embody M-CR3 by demonstrating advanced reflection and assessment literacy; they articulate thoughtful insights about rubric design, seek and apply feedback strategically, and show strong metacognitive awareness of their own artistic process and growth. Taken together, Student 11’s assessment profile is marked by thoughtful exploration, persistent refinement, and increasingly sophisticated reflective practice.

Synthesis Across Participant Assessment Profiles

Across the four student assessment profiles, a cohesive picture emerges of how creative learning develops within the dimensions of BDT as articulated in Manitoba's *Grades 9–12 Music: Curriculum Framework* (Manitoba Education and Advanced Learning, 2015). Together, they illustrate creative learning as a developmental process characterized by expanding possibilities, increasing intentionality, and moments of conceptual reorganization—dimensions consistent with process-oriented models of creativity and growth-focused approaches to assessment in music education (Bolden & DeLuca, 2022; Green et al., 2024). Although each student approached the project from differing levels of prior experience, personal interests, and technical fluency, their collective narratives illustrate the power of flexible, student-centered assessment practices in fostering meaningful growth in creative musicianship.

Breadth: Generating and Extending Ideas Across Tools, Genres, and Perspectives.

Breadth appears prominently across the four profiles through students' diverse approaches to idea generation and exploration. Student 3 demonstrates breadth through multimodal experimentation, integrating acoustic performance, digital composition, and Colombian cultural forms within their creative process. Student 6's breadth is grounded in technologically rich exploration of vocal-synthesis platforms, cross-linguistic adaptation, and the aesthetic traditions of Vocaloid culture. Student 9 expresses breadth by reimagining a piano composition for French horn and tuba, applying expressive techniques, and drawing inspiration from a range of musical sources. Student 11 demonstrates breadth through engagement with expressive piano repertoire, digital notation tools, and analytical study of model compositions. Together, these examples illustrate breadth not as a singular quality but as a dynamic process through which students

engage multiple tools, influences, and perspectives to generate and extend musical ideas in ways consistent with M-CR1.

Depth: Refinement, Problem-Solving, and Recursive Engagement. Depth is evident across the student profiles through sustained refinement, detailed musical decision-making, and recursive problem-solving. Student 6 exhibits exceptional depth through technical inquiry and expressive nuance in tuning digital voicebanks, restructuring workflows, and persistently revising parameters to achieve artistic intent. Student 3 demonstrates depth through iterative compositional development, analytical engagement with classical structures, and thoughtful integration of thematic and cultural elements. Student 11's depth is seen in their ongoing work to resolve structural transitions, refine expressive markings, and adapt to technological limitations through creative solutions. Student 9 also demonstrates depth by negotiating instrumentation constraints, adjusting octave placements and rhythms, and reflecting on how these adjustments maintain coherence within their arrangement. Together, these profiles highlight depth as a recursive and reflective engagement with creative challenges, firmly aligned with M-CR2's emphasis on experimentation, revision, and refinement.

Transformation: Assessment Literacy, Agency, and Metacognitive Growth.

Transformation is most visible in students' emerging assessment literacy, growing agency, and developing capacity to reflect critically on their creative processes. Student 3's reflections reveal a sophisticated understanding of equitable assessment practices and the nuanced nature of evaluating creativity. Student 6 demonstrates transformation through intentional feedback-seeking, strategic self-assessment, and clear articulation of fair assessment criteria grounded in process and effort. Student 9 shows transformation by confidently engaging with the BDT framework and using peer insights as formative input to refine their musical decisions. Student

11 demonstrates strong metacognitive growth, integrating feedback from peers and teachers, articulating the purposes of flexible rubric design, and identifying specific goals for future creative development. Collectively, these students exemplify the type of reflective practice and autonomy central to M-CR3, using assessment tools not only to evaluate outcomes but to guide ongoing learning.

Summary. Overall, the four assessment profiles presented in this chapter illustrate how the signposts of BDT provide a meaningful and nuanced lens for assessing the Creating recursive learnings within Manitoba's Grades 9–12 Music Curriculum. By examining students' journals, questionnaire responses, creative products, and reflective processes, it became clear that creative learning unfolds recursively and uniquely for each learner, shaped by their background, interests, technical fluency, and artistic intentions. The variation observed across the profiles reinforces scholarship that conceptualizes creativity as uneven, contextual, and developmentally situated rather than uniform across learners (Kaufman & Beghetto, 2009), with creative engagement shaped by evolving musical identities (DeNora, 2016). The profiles demonstrate that assessment *for*, *of*, and *as* learning is most effective when grounded in flexible, student-centered practices that honour the diverse tools, genres, strategies, and identities students bring to their music-making. Through Breadth, students reveal the range of ideas, influences, and creative possibilities they explore; through Depth, they show how ideas are developed, refined, challenged, and extended over time; and through Transformation, they display emerging agency, assessment literacy, and metacognitive awareness of their own artistic growth. In this way, BDT functioned as a practical assessment lens that rendered creative learning visible without reducing it to fixed criteria, supporting calls for assessment approaches that document growth through description, reflection, and sustained engagement with creative work (Bolden & DeLuca, 2022;

Hatch, 2023). Collectively, these findings affirm that the Creating recursive learnings cannot be meaningfully captured through product-focused or prescriptive assessment models. Instead, they require approaches that prioritize process, reflection, and individualized pathways, enabling students to deepen their creative capacities while building ownership of their learning. Chapter 5 thus demonstrates that the BDT framework offers a robust, responsive, and pedagogically sound method for assessing creative engagement in ways that align authentically with Manitoba's vision for music learning growth and with the lived realities of students as developing musicians.

Chapter 6: Summary, Conclusions, and Recommendations for Teachers and Researchers

This action research study examined how creative music learning could be authentically enacted and assessed in large ensemble contexts while aligning with the *Grades 9 to 12 Music: Manitoba Curriculum Framework* (Manitoba Education and Advanced Learning, 2015). Three research questions guided the inquiry, and a five-month pedagogical innovation implemented and assessed resulted in nine themes that aligned directly with the recursive learnings in the Manitoba 9-12 Music curriculum framework. Findings in Chapter 4 showed that the open-ended, student-centered project design empowered student agency, deepened engagement, and fostered musical identity development. Students repeatedly articulated how autonomy over genre, tools, and creative direction shaped their motivation and growth. Chapter 5 extended these findings through individual assessment profiles demonstrating how the signposts of BDT can be used for assessing learning growth over time, in alignment with Manitoba's conceptual framework. This chapter highlights areas where the findings offer new insight into practice. Findings from this study both align with and extend existing scholarship by demonstrating that student agency, creative engagement, and non-linear growth across BDT can be meaningfully enacted within a large ensemble context when open-ended pedagogy, reflective practices, and flexible assessment structures are intentionally designed. The following sections examine these connections in greater detail, with particular attention to student agency and identity formation, pedagogical openness, and the role of assessment as learning in creative music contexts.

Conclusions

By embedding creative development throughout ensemble instruction in a band program supported by scaffolded exploration, open-ended pedagogical project design, agency-driven tasks, and BDT-aligned assessment, this study demonstrates that large ensemble programs can

become powerful spaces for musical transformation. The nine themes identified illustrate that students not only learned to create music, but rather they developed reflective habits, musical identities, problem-solving strategies, and greater confidence as creative musicians.

This study set out to examine how creative learning experiences could be authentically embedded within a large ensemble music program and how students' creative growth could be assessed using Manitoba's BDT framework. The findings demonstrate that when open-ended pedagogical approaches, scaffolded supports, and student agency are intentionally woven into ensemble-based music instruction, students engage deeply with the creative process and develop increased confidence, resilience, and musical identity. Across data sources, students consistently articulated that autonomy, freedom to experiment, and opportunities to make personal artistic choices heightened their motivation and strengthened their sense of ownership in music-making.

The findings affirm key arguments raised in the literature review. Scholars have long noted that creativity remains underrepresented in traditional ensemble settings because of entrenched Eurocentric structures, teacher-directed rehearsal models, and systemic pressures privileging performance outcomes over creative inquiry. These concerns are evident throughout the literature, which highlights the need for greater student agency, flexible learning environments, and instructional approaches that center experimentation, reflection, and self-expression. This study responded directly to those concerns. Students in this project not only generated and developed ideas in alignment with recursive learnings M-CR1 and M-CR2 but also demonstrated reflective and identity-forming practices consistent with M-R3 and M-R4, illustrating the Manitoba curriculum's assertion that Creating cannot occur in isolation from Responding and Connecting.

The intentional inclusion of scaffolded supports, such as structured whole-class composition tasks, guided idea-generation discussions, and iterative feedback cycles, proved essential for enabling students with varied musical backgrounds to participate meaningfully in creative work. These findings mirror the literature's emphasis on balancing freedom with structure to lower barriers to entry for novice creators. Students' experiences with technological tools, digital composition platforms, and multimodal documentation further resonate with research advocating for diverse and culturally responsive pathways into creative practice. Through these varied access points, students broadened their musical understanding and expanded the range of sound worlds they felt empowered to explore, as reflected in themes related to Breadth in creative growth.

Assessment emerged as another significant site of alignment between this study's findings and the broader literature. Rather than evaluating creativity as a trait or subjective product, the use of Manitoba's BDT signposts allowed assessment to remain focused on observable engagement with the creative process. Students' active participation in co-designing assessment criteria reinforced their agency and helped demystify expectations for success. This dynamic, student-centered approach to assessment echoes longstanding scholarly recommendations for formative, flexible, and process-oriented evaluation in music education, and is consistent with thematic findings regarding the depth and transformation of students' learning.

Together, the findings of this study contribute to ongoing conversations about the evolving purpose and possibilities of large ensemble music programs. They demonstrate that creative development is not only possible in these settings but can become a catalyst for enhanced motivation, deeper musical understanding, and strengthened student identity. The

reciprocal nature of the learning documented –where students’ creative risks informed teacher reflection and pedagogical adaptation – offers further evidence that action research is a powerful mechanism for generating meaningful, practice-based knowledge. This reciprocal growth aligns with Theme 9 and underscores the importance of teacher positionality, adaptability, and relational engagement in fostering creative learning environments.

Ultimately, this study reinforces that when student agency, open-ended exploration, and reflective practice become central features of ensemble-based instruction, the music classroom can transform into a space where creativity is not an add-on but an integral, lived dimension of learning. The pedagogical innovation undertaken here demonstrates that even within the structural constraints of large ensemble programs, creativity can flourish when students are empowered to pursue personally meaningful artistic pathways. These findings extend the literature by providing concrete, replicable practices that other educators may adapt to envision creative development in their own classrooms, helping to continue to shift ensemble music education toward a more inclusive, responsive, and creative future.

Limitations of the Conclusions

The conclusions drawn from this study are subject to methodological limitations that are characteristic of action research. The small number of consenting participants ($n = 12$) naturally restricts the breadth of perspectives represented and limits the transferability of findings beyond this specific school context. Additionally, my dual role as teacher–researcher introduced inherent tensions, as the closeness to the participants and the instructional environment may have influenced my interpretation of the data despite deliberate efforts to remain reflexive. The contextual specificity of the project, situated within one large-ensemble program, in one school, during one semester, further narrows its transferability. However, these limitations were

mitigated through multiple credibility strategies, including triangulation across data sources and prolonged engagement with participants, both of which strengthened the trustworthiness of the study's insights.

Implications for Practice

Adopting Open-Ended Task Design with Scaffolds

Findings from this study affirm that open-ended task design, when supported by intentional scaffolding, cultivates both confidence and creative fluency among secondary music students. The composition protocols, inspiration prompts, and guided exploratory activities employed demonstrate that structured opportunities for low-stakes experimentation help students locate meaningful entry points into creative work. Such scaffolding aligns with literature emphasizing the importance of balancing freedom and support when students are new to composition or improvisation (cite). Incorporating these scaffolded, exploratory moments into regular ensemble instruction can help demystify creative work and make it accessible to learners with diverse levels of prior experience.

Recasting the Role of the Ensemble Director

Study results underscore the necessity of re-imagining the traditional role of the ensemble director. Thematic findings highlight students' increased agency, self-direction, and reflective engagement when the teacher adopts a facilitative stance rather than functioning solely as conductor or director. Over the course of this project, I found myself shifting my perspectives on my role in the classroom. In focusing more on the Creating area of curriculum, it became evident that I needed to aim for more balance among the four learning areas in my day-to-day instructional practice. It was also necessary for me to step back from the traditional role of directing from the front of the room and relinquishing “control” of the class from time to time to

allow elements of this open-ended pedagogy to unfold. I discovered that flexibility and open-mindedness on my part allowed creativity to flourish in the large ensemble setting. This pedagogical shift mirrors ongoing calls in the literature from scholars like Randles (2022) and Giddings (2023) to move toward a model where teachers act as mentors, producers, and co-learners in creative music-making environments. By positioning themselves alongside students in the creative process, teachers can enhance relational learning, validate diverse musical expressions, and create a classroom culture that supports risk-taking and authentic artistic exploration.

In response to this claim, some educators may be concerned that to make space for this type of pedagogical shift there would need to be a sacrifice in the performance standard of their ensembles. As such, it is also important to note that no such sacrifice was necessary in my experience. While this project was unfolding, the band still learned, prepared, and performed repertoire in a public concert setting in a similar manner to previous years with no discernable loss of performance quality. In other words, we accomplished this project by integrating it into regular ensemble instruction and were still able to put on a successful concert for our community. The implication, based on my experience, is that it is possible to recast the role of the ensemble director to be more flexible and address creative development more richly in the ensemble context without abandoning performance quality.

Supporting Diverse Tools and Musical Identities

A prominent finding resulting from this study is that students benefited from the availability of diverse musical tools, technologies, and creative modalities. Analysis of student assessment profiles illustrated how providing students with multiple technological platforms, stylistic influences, and modes of musical engagement expanded their access to creative learning.

These findings respond directly to critiques of the Eurocentric structures embedded within traditional concert band programs. By legitimizing students' preferred genres, personal histories, and cultural sound worlds, teachers can foster inclusive learning environments that empower students to bring their whole identities into their creative work. This approach also broadens the scope of what “counts” as musical engagement in an ensemble setting, making creative development viable for all learners.

Despite the clear benefits of expanding students' creative possibilities through diverse technological tools, several pedagogical challenges emerged relating to how students learned to use music technology. While many participants were eager to experiment with DAWs, notation software, and digital instruments, their prior experience with these tools varied widely, resulting in uneven starting points that required differentiated scaffolding. At times, students became frustrated when technical obstacles such as software instability, unfamiliar interfaces, or difficulty translating musical ideas into digital formats interfered with their creative momentum. These challenges highlighted a tension between offering open-ended creative freedom and ensuring that students possessed (or could quickly develop) the foundational technological skills needed to engage meaningfully with their ideas. As a result, considerable instructional time was devoted to troubleshooting, peer-to-peer coaching, and just-in-time demonstrations, underscoring that equitable access to creative technology also requires sustained, intentional scaffolding. This finding reinforces that breadth of creative opportunity is only fully realized when students receive structured support that enables them to navigate digital tools with confidence rather than discouragement.

Implementing BDT-Based Assessment

The co-construction of assessment criteria using Manitoba's (Manitoba Education and Advanced Learning, 2015) BDT model emerged as a particularly impactful practice in this study. Evidence from student journals and field notes shows that collaboratively articulating expectations allowed students to recognize creative growth as a process rather than a fixed attribute. Involving students in rubric design encouraged reflection, self-assessment, and goal setting, reinforcing the curriculum's emphasis on assessing learning *for*, *of*, and *as* learning. BDT-based assessment thus offers a replicable framework for evaluating creative engagement in ensemble contexts while honouring the highly individualized nature of student artistic development.

Integrating Creating Across All Wings of the Curriculum

This research reinforces the Manitoba curriculum's (2015) assertion that the four essential learning areas – Making, Creating, Responding, and Connecting – are intended to function interdependently rather than in isolation. Students' reflective journals and identity-focused responses, especially those coded under Responding and Identity, demonstrate that creative engagement frequently initiated deeper analytical and personal meaning-making. When students created original work, they not only generated and developed musical ideas but also reflected on how those ideas related to their own identities and musical experiences. This interplay suggests that authentic creative learning naturally activates the Responding and Connecting wings of the curriculum, reinforcing the need for educators to integrate these areas holistically into daily practice.

Equity, Diversity, and Inclusion

Findings from this study highlight the important role of creative music-making in advancing equity, diversity, and inclusion within large ensemble contexts. In particular, results

linked to breadth and agency, show that multimodal, culturally responsive task design widens access to creative participation. When students are invited to engage with diverse tools, genres, and modes of expression, barriers associated with the Eurocentric lineage of concert band instruction are reduced. These practices directly address concerns raised in the literature regarding inequitable access to creative musical experiences in traditional ensemble programs. By valuing the varied musical backgrounds of students and allowing multiple pathways into composition and production, teachers can create more inclusive learning environments where all students experience creative success and see their identities reflected and affirmed.

Directions for Future Research

Looking ahead, future research could build on the insights gained in this study by exploring how creative development unfolds across multiple years of ensemble participation rather than within a single semester. A longitudinal design would allow researchers to examine how students' creative identities evolve over time and how sustained engagement with the recursive learnings of the Manitoba curriculum influences their artistic independence, resilience, and sense of belonging in music. Further studies could also investigate the implementation of similar pedagogical innovations across diverse school contexts, such as rural settings, small-enrolment programs, and schools with limited access to digital resources, to understand how contextual factors shape the possibilities and challenges of embedding creative work in large ensemble instruction. Finally, there remains a need for research that examines teachers' experiences as they shift toward facilitative, student-centered roles in ensemble classrooms. Such work could illuminate the professional learning, collaborative structures, and the systemic support necessary for teachers to confidently integrate creative development into ensemble traditions that have historically privileged performance. By expanding inquiry in these

directions, future research can continue to strengthen the collective understanding of how creativity may be authentically cultivated within the evolving landscape of secondary music education.

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Appendix A: Informed Consent Letter and Form for Parents



**University
of Manitoba**

Faculty of Education
Department of Curriculum,
Teaching and Learning

Faculty of Education – CTL
227 Education Bldg.
71 Curry Place
Winnipeg, Manitoba
Canada R3T 2N2
T: 204-474-9014

Letter of Informed Consent for Parent(s)/Guardian(s)

Research Project Title: Creative Development in Large Ensemble School Music Courses for Students in Grades 9-12: An Action Research Study

Principal Investigator: Garth Rempel, Graduate Student, [REDACTED]
[REDACTED]

Research Supervisor: Dr. Francine Morin [REDACTED] [REDACTED]

Dear Parent(s)/Guardian(s),

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your child's participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

You are being asked to participate in a research study in which video and/or photographs of your child taken for assessment purposes in their school music program will be used as research data. The information contained in video and photographs is considered personal information as they present recorded information in which your child may be identified. Please take your time to review and read this consent form carefully and any accompanying information. It should give you the basic idea of what the research is about and what your child's participation will involve. If you would like more detail about something mentioned here, you should feel free to ask me or my research supervisor. Although the information captured in video and pictures is non-anonymous, confidentiality can be protected by restricting access to the video and to personal information such as the names of the participants or the institutions in which data will be captured.

What is the study about? I am your child's music teacher at school. I am pursuing a Master of Education degree at University of Manitoba (UM) and working on my thesis research. The purpose of this study is to learn more about how to best teach students to create with music in band class, how to better assess my students' creative musical growth, and how students learn to create with music. Research suggests that learning experiences for students involving creating with music in school music programs are lacking. Also, there is not much Canadian research about teaching students to create with music in high school band classes. Through this research I

hope to improve my teaching practice, my students' abilities to create with music, and share my findings with other music educators.

What will I be doing with your children in music classes? A creative music project based on creativity research will be implemented with all Grade 9-12 concert band students from September 2024 to January 2025. This project addresses the mandated music learning outcomes in the "Creating" component of Manitoba Education's 9-12 Music curriculum. Practices commonly used in our music classes will be included in these lessons: discovering and implementing ideas relating to performing music, examining existing music and reflecting on its composition and impact, composing and performing music alone and with peers, video recording performances, assessing music performance, using peer and instructor feedback to inform musical decision-making, and conducting small and large group discussions about our learning. Students will create and share a music performance product while working alone or in small groups. They will reflect on and document their experiences throughout the project. I will also have conversations with individuals and small or large groups of students to learn more about their perspectives and learning experiences. An iPhone or Zoom will be used to record these conversations for later transcription and analysis by me. Videos will be recorded with an iPad or laptop computer during the music lessons. Precautions will be taken to protect the identity of your child. There are two levels of consent for the use of video data, strictly for data analysis, or for data analysis and public sharing in conference presentations. Video data associated with participants that do not receive consent for public sharing will be deleted immediately after data analysis. All other written and recorded data will be destroyed following the conclusion of this study, and no later than December 2025.

What consent is being requested and why? All students enrolled in concert band will be participating in this creative music project as it will be implemented to fulfill music learning outcomes outlined in the 9-12 Music curriculum. Specifically, I am asking for consent to carefully study your child's music assessment data for research purposes. These data include student responses (written or oral) during class; student questionnaires; video recordings of performance or in-class learning experiences; and creative music project assessments. Consenting means that you are giving me permission to analyze your child's music assessment data for research purposes after the project is complete and semester grades have been submitted. The study will help me better understand students' creative learning in music and improve my teaching practice.

In addition to using video recordings of performance or in-class learning experiences as research data for analysis, I am seeking consent to share video excerpts for the purpose of illustrating research findings at professional development conferences for educators, in the electronic version of my final thesis report accessible through the UM Libraries MSpace, and potentially in music education journal article(s). Video data generated by consenting students will be stored for seven years in a password-protected folder in a secure UM OneDrive account. Video data that does not receive consent for public sharing will be deleted immediately after the research study is completed, while other videos will be kept and deleted, no later than June 30, 2030.

Consenting to share your child's video for public presentation does not guarantee that it will be chosen for public presentation, as only a few videos will likely be used. If your child's video is

chosen for public sharing, you will be notified by me by email. You and your child will have the opportunity to preview the video prior to publication or presentation and decide if it is acceptable to share.

Will the information gathered remain confidential? The identities of student participants will remain confidential during and after the publication of this study. Voices of students may be recorded as part of a musical performance or as part of conversation in class. As video recordings will be used, absolute confidentiality cannot be guaranteed. **However, numerous precautions will be taken to protect the identity of your child by using pseudonyms and/or blurring faces in any recorded videos.** I will review video recordings in a private office space, alone, where others cannot overhear or see. Furthermore, the location of this study (e.g., the name of the school, the name of the city) will be masked by using a pseudonym for the school and referencing the city as a large urban city on the Canadian prairies. All digital copies of data will be stored in a password-protected folder on a secure cloud storage server managed by the University of Manitoba (UM). Physical copies of data collected will be stored in a locked filing cabinet in my school office as well as scanned and uploaded to a secure UM OneDrive account. All data in electronic or written forms containing students' responses and assessments will be deleted or shredded five years after the data analysis is complete, no later than June 30, 2030. Students' real names or faces will not be used in any future publication or presentation derived from this study, unless permission is received to show their face.

What are the risks and benefits of participating in the study? The risk associated with participation in this study is minimal, no more risk than students typically face attending school. All students benefit directly from the learning they gain through completion of the creative music project during band classes. Parents/guardians and students consenting for their work to be included as data in this research study will experience no direct benefit but may feel good about contributing to research that holds potential for advancing music teaching and learning. I will benefit from having the opportunity to examine and improve my teaching practices in a focused and rigorous manner. By extension, my future students may benefit from my experiences in completing this study. Other music educators may benefit from reading the results of this study and reflecting on their practice. There will be no compensation for students and/or parents/guardians that choose to participate.

What if we change our mind about participating in the study? Participation in this project is voluntary and ongoing. Students will not be penalized in any way should they choose not to permit me to use artifacts of their creative music learning for research purposes. You are free to withdraw your child's participation at any point during the study without penalty by contacting the school's administrative assistant, Misty Klassen or Adrienne Salem. Students may participate fully or partially in the research. For example, you can provide me with permission to use student assessments, but not video-recordings. The decision to participate will not in any way affect students' assessments or course grades in concert band or any other music course. To ensure this, I will not know which students are participating, and I will not be working with de-identified data until the conclusion of the first semester (January 31, 2025), after the projects are completed and assessed and grades for the semester have been submitted. Consent may be withdrawn up to March 31, 2025, the date that I anticipate data analysis will be complete and final report writing will begin. After this date, consent can no longer be withdrawn.

How do I plan to share my research results with others? Findings will be published in a written thesis accessible online through the University of Manitoba's Online Library MSpace (<https://mspace.lib.umanitoba.ca/>). The results may also be shared at future music education conferences and/or published in journals such as the *Canadian Music Educator*.

How will the research results be shared with parents and children? Once the data has been collected and analyzed, a general email will be sent out to inform potential participants that a final report summary is ready. Printed copies of this report will be made available for participants to pick up from the school office for a two-week period in September 2025. Final report writing is expected to be completed by August 31, 2025.

How will I manage my authority and conflict of interest? As your child's music teacher, I am in a position of authority, and I am aware that you or your child might feel pressured to participate to support me in my study. I am also in a conflict-of-interest position because I have something to gain by your consent in allowing me to use your child's responses in this project for my thesis research. Please do not feel pressured to participate. Your decision will not have any positive or negative impact on your child's grades or my relationship with your child. I will be unaware of which students have consented to participate. I will not be working with de-identified data until after January 31, 2025, when all grades for the first semester have been submitted. Your participation is entirely voluntary.

How do I give my consent? Please see the attached form. If you are interested in participating, read the form carefully, fill out all the required information, and return it to our school administrative clerk by the date specified. An additional form has been included so that you may keep a copy for your own records.

If English is not your primary language and you would like the details of this study to be read aloud and/or explained in-person by an interpreter, arrangements can be made to schedule such a meeting.

Please feel free to contact me if you have any other questions regarding any aspect of the study.

Sincerely,

Garth Rempel

PLEASE SIGN AND RETURN THE FORM BELOW



**University
of Manitoba**

Faculty of Education
Department of Curriculum, Teaching and Learning

Faculty of Education – CTL
227 Education Bldg.
71 Curry Place
Winnipeg, Manitoba
Canada R3T 2N2
T: 204-474-9014

PARENT/GUARDIAN CONSENT FORM

Please return this form to the school administrative clerk [REDACTED] by January 24, 2025

Your signature on this form indicates that you have understood to your satisfaction the information regarding your child's participation in this research project and agree to allow your child to participate. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw your child's data for use in the research study at any time, without prejudice or consequence. Your child's continued participation should be as informed as your initial consent for them to participate, so you should feel free to ask for clarification or new information throughout the first school term during your child's participation.

The University of Manitoba may look at my research records to see that my research is being done in a safe and proper way.

I have read this consent form. I have had the opportunity to discuss the research study with the researcher and/or his research supervisor. I have had all questions answered by them in language I understand. There are no known risks associated with this study. **I understand that my child's identity will be masked by a pseudonym for this study.** I understand that my child's data collected during this study (including students' responses, assessments, and video recordings) will be destroyed five years after the completion of data analysis, and no later than June 30, 2030.

I believe that I have not been unduly influenced by the teacher-researcher to participate in the research study by any statements or implied statements. Any relationship (such as employer, supervisor or family member) I may have with the researcher has not affected my decision to allow my child to participate and that I may choose to withdraw my consent and decline to the use of my child's data for research purposes, at any time, without penalty, prejudice or consequence. I understand that I will be given a copy of this consent form after signing it. I authorize the inspection of any of my child's data that relate to this study by the University of Manitoba.

This research has been approved by the Research Ethics Board at the University of Manitoba. If you have any concerns or complaints about this project, you may contact any of the above-named persons or the Human Ethics Coordinator 204-474-7122. A copy of this consent form has been given to you to keep for your records and reference.

Choose one of the following:

☐ **Yes**, I give permission for the use of my child's music assessment data for research purposes. These data include student responses (written or oral) during class; student questionnaires; video

recordings of performance or in-class learning experiences; and creative music project assessments.

☐ **No**, I do not give permission for the use of my child's music assessment data for research purposes. These data include student responses (written or oral) during class; student questionnaires; video recordings of performance or in-class learning experiences; and creative music project assessments.

Choose one of the following

☐ **Yes**, I give permission for the use of video data gathered for the purposes of this project provided by me, my child, or about my child to be shared publicly. These videos of students' creative music projects may be shared in academic presentations, in journal articles, and/or the University of Manitoba's Online Library MSpace (<https://mspace.lib.umanitoba.ca/>).

☐ **Yes**, I would like my child's image blurred when sharing videos publicly.

☐ **No**, I do not want my child's image blurred when sharing videos publicly.

☐ **No**, I do not give permission for the use of video provided by me, my child, or about my child to be shared publicly.

Check this box to acknowledge that student assent is important in this study.

☐ I understand that my child will be asked to provide their assent for the use of their music assessment data for research and presentation purposes. Only data for which parental consent AND student assent has been obtained will be used for research and/or presentation purposes.

Parent/Guardian's Signature: _____ Date: _____

Parent/Guardian's Printed Name: _____

Researcher's Signature: _____ Date: _____

Appendix B: Recruitment Script

Oral Script for Third Party Recruitment Meeting for Parents/Guardians & Students

Good day everyone,

My name is [REDACTED], and I am the Music Consultant for [REDACTED] School Division. For the past few years, in addition to his daily engagement with the community of [REDACTED], Mr. Rempel has been studying at the University of Manitoba, working towards a Master of Education degree. I am aware of some of the creative projects that he has done with his classes in the past. He will be adapting these ideas to implement with students this year and he has added some new dimensions for students to explore creating with music in large ensemble classes. As in the past, all students in his classes will have the opportunity to engage with a creative project this fall. For his thesis research project, he is interested in learning more about how he can give students more opportunity to create with music in school, and how he can better support students' learning to create with music. Mr. Rempel is also interested in improving his ability to teach students to create with music and he can learn from studying your responses to the creative music project he will do with you.

What is the study about? Mr. Rempel is inviting you to be part of a research study. The purpose of this study is to learn more about how to better teach students to create with music in band class, how to better assess students' creative musical growth, and how students learn to create with music. Research suggests that learning experiences for students involving creating with music in school music programs are lacking. Through this research, Mr. Rempel hopes to improve his teaching practice, his students' abilities to create with music, and share his findings with other music educators.

What will your child be doing for this project? Students in band class will be working on a project based on creativity research in the first semester of this school year. This project addresses learning outcomes found in the "Creating" component of the Manitoba music curriculum. Practices commonly used in his music classes will be included in these lessons: discovering and implementing ideas relating to performing music, examining existing music and reflecting on its composition and impact, composing and performing music along and with peers, video recording performances, assessing music performance, using peer and instructor feedback to inform musical decision-making, and conducting small and large group discussions about our learning.

For this project, students will create and share a music performance product while working alone or in small groups. They will reflect on and document their experiences throughout the project. Videos will be taken during the music lessons to capture work in progress, conversations and dialogue about the project, and performances of student-created musical works.

What does participation in the study mean? Once again, all students in band class will be completing this project as part of their course work. Your child's participation in the research study means that you are giving Mr. Rempel permission to analyze your child's responses to lessons, reflections on their work, creative music products, and assessments, after the project is complete and the grades have been submitted. Analyzing student work will help Mr. Rempel better understand students' creative learning in music and improve his teaching practice. If you do not wish to participate in the study, Mr. Rempel has assured me that it will not affect your child's grades or his relationship with them at all. In fact, Mr. Rempel won't even know who has agreed to participate in the study since the identities of participants will be masked using *pseudonyms*, or false names. Everyone will be treated the same and participate in music classes as usual.

Will the information gathered remain confidential? The identities of student participants will remain confidential during and after the publication of this study. Voices of students may be audio-recorded as part of a musical performance or as part of conversation in class. As video recordings will be used, absolute confidentiality cannot be guaranteed. However, numerous precautions will be taken to protect the identity of your child. Mr. Rempel will always ask students if it is okay to video-record their performance or creative work before doing so. Video recording and/or audio recordings will be reviewed in a private office space by Mr. Rempel. The location of this study (e.g., the name of the school, the name of the city) will be masked. All digital copies of data will be stored in a password-protected folder on a secure cloud storage server managed by the University of Manitoba. Physical copies of data collected will be stored in a locked filing cabinet in Mr. Rempel's office. Students' names will not be used in any future publication derived from this study, or pseudonyms will be used to protect their identity. Mr. Rempel indicated that he would like to be able to share videos of student's creative work with other music teachers at professional development conferences. At these events, student faces will be blurred in the videos, unless you indicate that you do not want your child's image blurred.

What are the risks and benefits of participating in the study? The risk associated with participation in this study is minimal, no more risk than students typically face attending school. All students benefit directly from the learning they gain through completion of the creative music project during band classes. Parents/guardians and students consenting for their work to be included as data in this research study will experience no direct benefit but may feel good about contributing to research that holds potential for advancing music teaching and learning. There will be no compensation for students and/or parents/guardians that choose to participate.

What if we change our mind about participating in the study? Participation in this project is voluntary and ongoing. Students will not be penalized in any way should they choose not to permit Mr. Rempel to use artifacts of their creative music learning for research purposes. You are free to withdraw your child's participation at any point during the study without penalty by contacting the one of the members of the school's administrative staff, Adrienne Salem. You can elect to participate fully or partially in the research. For example, you can provide permission to use student assessments, but not video-recordings. The decision to participate will not in any way

affect students' assessment or evaluation in the concert band or any other course. As I mentioned, to ensure this, Mr. Rempel will not be aware of which students are participating until the end of the first semester (January 31, 2025), after the projects are completed and assessed and grades for the semester have been submitted.

How will the research results be shared with others? The findings of this study will be published in a written thesis accessible online through the University of Manitoba's Online Library MSpace. The results may also be shared at future music education conferences and/or published in journals such as the *Canadian Music Educator*.

How will the research results be shared with parents/guardians and children? Once the creative projects are completed and the term is over, all student participants and their parents/guardians will receive a summary of the results through email or hardcopy, once the study has been completed. Final report writing is expected to be completed by August 31, 2025.

How will Mr. Rempel manage his authority and conflict of interest? As your child's music teacher, Mr. Rempel is in a position of authority, and he is aware that you or your child might feel pressured to participate to support him in his study. Please do not feel pressured to participate. Your decision will not have any positive or negative impact on your child's grades or his relationship with your child. He will be unaware of which students have consented to participate until January 31, 2025, after grades have been submitted for the semester. Your participation is entirely voluntary.

Any questions? At this time, we would be happy to answer any questions you may have. Does anyone have any thoughts, concerns, or questions about the study Mr. Rempel will be conducting? If you have any other questions or concerns about the study that arise later, you can contact Mr. Rempel or Dr. Francine Morin (Mr. Rempel's research advisor). Their contact information, including phone numbers and email addresses are included on the consent form.

[Describe and distribute forms.]

Thank you for your attention. I am now going to distribute some forms: an informed consent form to participate in the study, a consent form regarding the use of video recordings, a student assent form, and a confidentiality form. You are encouraged to read all four forms carefully. Both Mr. Rempel and I will be here to answer any questions following the presentation regarding the study. You have time to read, review the forms, and discuss them with your child here this evening. There is a place where you can leave your signed forms tonight. Alternatively, you can bring the forms home and return them by the deadline. Both students and their parent/guardian must agree to participate and sign the forms.

The first form is about allowing Mr. Rempel to study your creative work and your engagement with the creative process. The second form is about allowing Mr. Rempel to share video clips of your creative work at conferences and in his research report. You do not have to

agree to both or either. If you want to participate in the study but not share your video, Mr. Rempel said that is fine. No one will be upset or disappointed with you and you won't be treated any differently. The Confidentiality Agreement is a statement signed by the student indicating that you acknowledge the importance of confidentiality and will not tell anyone that you are participating in the study or reveal the name of the school where the study is taking place. The Student Assent Form is a signed statement indicating that you are aware that your parents have given you permission to participate, and you also agree to participate in this study.

Also, if English is an additional language for you, and you do not understand some parts of the study, we can arrange for any questions you might have to be answered in your preferred language.

Thank you for your time today!



**University
of Manitoba**

Faculty of Education
Department of Curriculum, Teaching and Learning

Appendix C: Student Assent Form

Faculty of Education – CTL
227 Education Bldg.
71 Curry Place
Winnipeg, Manitoba
Canada R3T 2N2
T: 204-474-9014

STUDENT ASSENT FORM

Research Project Title: Creative Development in Large Ensemble School Music Courses for Students in Grades 9-12: An Action Research Study

Principal Investigator: Garth Rempel, Graduate Student, [REDACTED], [REDACTED]

Research Supervisor: Dr. Francine Morin, [REDACTED], [REDACTED]

I have been informed that my parent(s)/guardian(s) have given permission for me to participate, if I want to, in a study you are conducting about creating music in the concert band program. I understand that participating in the creative project will be a part of the concert band program, and that my participation involves allowing you to study my responses to learning about creating music as well as my creative music project. I understand that giving you permission to study my responses and my creative music project after the term is over is voluntary, and I have been told that I can withdraw my participation at any time up to March 31, 2025. If I choose not to participate, it will not affect my grade in the course in any way. I will be given the opportunity to choose my own pseudonym (fictitious name) to mask and protect my identity during this study. If I do not choose a pseudonym, one will be assigned to me.

My chosen pseudonym is: _____

Choose one of the following:

- ☐ **Yes**, I give permission for the use of my music assessment data for research purposes. These data include my student responses (written or oral) during class; my student questionnaire; video recordings of performance or in-class learning experiences; and creative music project assessments.
- ☐ **No**, I do not give permission for the use of my music assessment data for research purposes. These data include my student responses (written or oral) during class; my student questionnaire; video recordings of performance or in-class learning experiences; and creative music project assessments.

Choose one of the following

- ☐ **Yes**, I give permission for the use of video data gathered for the purposes of this project provided by me or about me to be shared publicly. These videos of students' creative music projects may be shared in academic presentations, in journal articles, and/or the University of Manitoba's Online Library MSpace (<https://mspace.lib.umanitoba.ca/>).
- ☐ **Yes**, I would like my image blurred when sharing videos publicly.
- ☐ **No**, I do not want my image blurred when sharing videos publicly.
- ☐ **No**, I do not give permission for the use of video provided by me or about me to be shared publicly.
- ☐ I understand that only data for which parental consent AND student assent has been obtained will be used for research and/or presentation purposes.

Name _____ Date _____

Appendix D: Rubric for Assessing Creative Growth

Place yourself at a signpost for each area of Breadth, Depth, and Transformation. Explain your choices in your own words.

	Signpost 1	Signpost 2	Signpost 3
Breadth	• Emergent • Beginning to explore tools, techniques, strategies, and processes • Trying out basic ideas	• Expanding • Adding to tools, techniques, strategies, and processes • Forming connections • Intentionally trying new ideas and experimenting with them	• Expanding • Dynamically moving between tools, techniques, strategies, and processes • Clearly established connections to other styles/genre
Depth	• Focused on fundamental concepts and structures • Uses identifiable music language and patterns • Beginning to show fluency with selecting and organizing musical ideas	• Building on fundamental concepts and structures • Demonstrating layered understanding of musical concepts and relationships • Uses more complex music language and patterns • Shows increasing fluency with selecting and organizing musical ideas	• Synthesizing, generalizing, and elaborating on previous and new knowledge • Approaching mastery of musical concepts and application in creative work. • Shows maturity in creative output and recognizing connections in music
Transformation	• Begins to see music in new ways. • Begins to become aware of self as artist/creator • Attempts to apply problem solving strategies while engaging with creative process.	• Investigates new perspectives in defining, making, and creating music. • Explores their artistic identity through reflection and revision • Claims agency by engaging in critical self-reflection to inform problem solving strategies and decision making while engaging with creative process.	• Demonstrates awareness that awareness and perception is constantly shifting, leading to seeking new perspectives and ways of knowing to inform choices and decisions when making and creating music. • Understanding of artistic identity informs choices and responses to others.

Breadth:

Signpost (circle one): 1 2 3

Rationale: (explain your choice in the context of your project)

Depth:

Signpost (circle one): 1 2 3

Rationale: (explain your choice in the context of your project)

Transformation:

Signpost (circle one): 1 2 3

Rationale: (explain your choice in the context of your project)

Appendix E: Student Questionnaire

To be distributed electronically via Microsoft Forms:

Please answer the following questions the following questions as completely as possible using your own words. No answer is incorrect. Your responses will help me to better understand your progress and to improve this project for future students.

1. How has your experience with this project increased your overall growth as a creative student musician? What did you learn about yourself as a student musician? Please explain your answer in your own words.
2. What are some of the challenges you experienced while working on this project? How did you address them?
3. What did you enjoy the most while working on this project?
4. What impact did this project have on your general understanding of music and its place in your life?
5. Do you have any suggestions that may help me improve this project for future band students?