Syllabic and Prosodic Approaches to Rhythmic Composition:

A Collective Instrumental Case Study

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Supervisory Committee

Syllabic and Prosodic Approaches to Rhythmic Composition:

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by

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ABSTRACT

The purpose of the study was to observe and document the manner through which eight students from two separate Grade 2 classes combined both syllabic (musical) and prosodic (word) rhythmic composing strategies during an eight week composing unit. Through the triangulation of data collected in the form of a research journal, student compositions, videotapes of composing behaviour, and transcriptions of group student interviews, integrated and music dominated group composing processes emerged, as well as four dominant trends of composing behaviour. First, a dialectical relationship between phrasal development and conception of meter was observed to exist depending upon student choice of composing strategy. Second, the influence of leadership roles was observed to play a dominant role in the determination of group composing process. Third, students exhibited differing modes of rhythmic perception during the assembly and performance stages of composition. Fourth and finally, an ambiguity regarding future preferred composing strategy was noted by students. Implications for education include the integration of cross-curricular (music and language) composing units. Further study of the influence of cooperative learning and student perception of meter within the

domain of composition is recommended as children were capable of generating linguistic and musical learning opportunities “from the inside-out.”

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ACKNOWLEDGMENTS

I would like to acknowledge the academic support of the community of scholars that I have experienced over the past three years at the University of Victoria. I would specifically like to express my gratitude for the support and encouragement of Dr. Betty Hanley, Dr. Mary Kennedy, and all of my professors within the Department of Curriculum and Instruction. I am particularly grateful for the consistent support of all of my fellow colleagues.

DEDICATION

I dedicate this thesis to my wife, children and extended family and friends who provided me with unwavering love and support throughout its evolution. I would further like to dedicate this thesis to the memory of my grandmother Helene Eves who always insisted that anything is possible.

CHAPTER ONE

Rationale

Many years ago when I began teaching, I witnessed a remarkable exchange. I was given the responsibility of supervising two preschool children as they played in a wading pool. One of the two children, Bill (all names are pseudonyms), was the son of two professional musicians. Bill loved to play and improvise with sound. The other, Carlos, was a Spanish-speaking boy who had recently arrived in Canada with his family.

Bill tip-toed towards the wading pool giggling with anticipation and cautiously stepped over the lip of the pool with his right toe, slowly edging it downward into the water. “Oweeee, water !” Bill shrieked as he scuttled backwards away from the pool. Carlos, having witnessed Bill’s reaction to the pool, went with him to return to the pool’s edge. Simultaneously both boys dipped their toes down into the water. “Oweeee, water!” exclaimed Bill once again. Carlos sang out a long line of excited exclamations in Spanish which culminated in the repetition of Bill’s “Oweee, water!”

Upon approaching the pool the third time, both boys stepped into the pool and began scooping the water upwards into the air. As he splashed the water towards the sky, Bill chanted, “Water, water…” rhythmically over and over with each upwards scoop of his arms. Laughing, Carlos imitated Bill’s chant exactly. Both boys began a circular marching stomp around the periphery of the pool as they synchronized their chant and their marching together.

After several minutes of chanting, splashing, and marching had elapsed, Bill added a further development to the rhythmic chant: “Water, water, everywhere, we’re going to get wet!” Immediately, Carlos happily imitated the new addition to the chant,

and after much rehearsal, the two boys synchronized their rhythmic chant through their play. Over the span of 20 minutes the two boys had naturally developed a complete rhythmic chant. How had Bill and Carlos, neither of whom had received any formal musical education, conceived of their rhythmic creation?

As I pondered my observation of Bill and Carlos' creative process, I began to see that three clearly distinguishable stages of rhythmic development were manifest in the two boys' rhythmic play with language (see Table 1). Initially, Bill experimented with a word that emerged from the natural environment: "Water!" By drawing focus to the water, Bill had signaled to Carlos the thematic context for play. Secondly, the two boys delighted in repeating the rhythm within the word "water" while matching their spoken rhythm with corresponding movement. Through experimenting with the repetition of the spoken rhythm inherent in the word "water" and internalizing the rhythm that was produced by matching the spoken rhythms with marching movements, the boys settled into a sense of duple meter. Thirdly, Bill and Carlos added new vocabulary which fit both the meter and the rhythmic pattern they had established and Bill began to shift his focus from the individual elements of rhythm towards a conception of rhythmic phrase. In order to accomplish this process of shifting from individual elements to phrasal conception, Bill had to spend several minutes experimenting with how the chant sounded together as a whole.

During the years since that afternoon when I witnessed Bill and Carlos' creation come to life, I have taught music to elementary school children and I have noticed that

Table 1: Rhythmic Shifting: Phrasal Development (Word to Music)

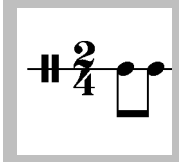
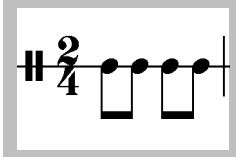
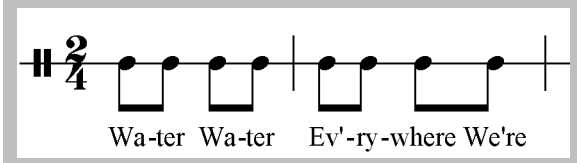
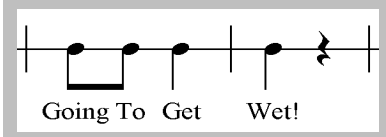
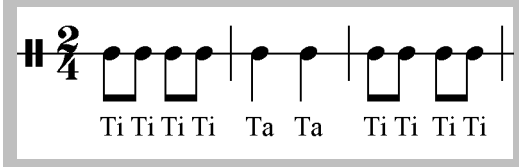
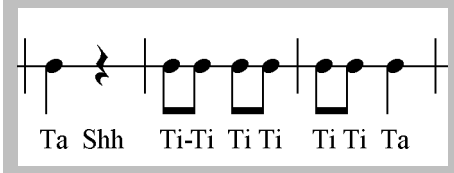
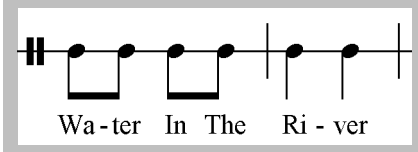
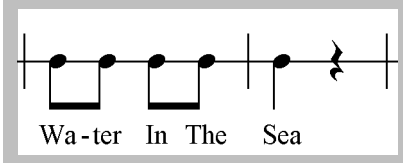
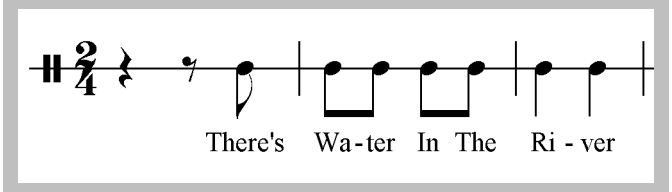
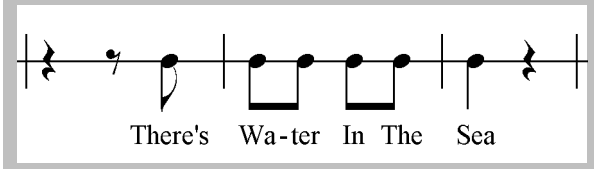
Stage	Word/Music Rhythm	**Creative Process**
a) Thematic context.	"Water!" 	Contextual vocabulary emerges with a set rhythmic value.
b)Repetition, movement, and rhythmic development.	"Water, Water…" 	Through play with word rhythms and movement, a sense of meter is established.
c) Motivic development, expansion of vocabulary, and conception of phrase.	"Water, Water Everywhere, We're Going To Get Wet!"  	Initial motives are developed and new vocabulary is added. Concentration shifts from isolated elements to phrase structure.

Table 2: Rhythmic Shifting: Phrasal Development (Music To Word)

Stage	Music/Word Rhythm	**Creative Process**
a) Students develop a repertoire of original Kodaly rhythm patterns.	 	Children create rhythms using the Kodaly symbols. Rhythms reflect the students' rhythmic phrasing.
b) Students begin to assign text to original musical rhythms.	 	Together the class brainstorms words or phrases to match completed rhythms.
c) Revision and completion of text-set rhythms with all rhythms finalized.	 	Students revise, modify, and make any rhythmic shifts to either word or musical rhythms.

They take great delight in reversing the process that I have described above (see Table 2). I have often invited my elementary students to experiment with creating their own rhythms, subsequently suggesting words that would match such rhythms. My observation of the process of my students setting text to both original or model rhythms has confirmed my suspicion that elementary aged children can and do reverse the process observed in the play of Bill and Carlos.

The observations that I have made about the nature of the musical and linguistic rhythmic composing process in preschool and elementary aged children guided my examination of scholarly research in the following domains: 1) the nature of the relationship between how the human brain processes musical and linguistic rhythm; 2) the dominant pedagogical approaches towards the teaching of musical rhythmic literacy; 3) the connection between language and music literacy; and 4) the compositional strategies employed by children and the extent to which cooperative learning influences such processes.

Below I introduce briefly how this scholarly research supported the observations I have made of Bill's and Carlos' play and subsequently the reversal of that process in elementary aged children. First, however, I define linguistic terminology used in the study.

Definition of Terms

Several linguistic terms are used consistently throughout my study that merit explicit definition. The first is prosodic features of language. The best way to understand the prosodic features of language is to think of the experience of listening to a person speak a foreign language. In doing so, one tends to pay attention to variations in stress,

intonation, accent, pitch, and syllable duration. Prosodic features are distinguished from concerns of semantics (meaning), lexicality (development of vocabulary), or grammar (Hill, 1961; Nketia, 2002). A second linguistic distinction is that which exists between suprasegmental and segmental aspects of language. Suprasegmental features of language refer exclusively to the parameters of prosodic features of accent, pitch, syllabic duration, intonation, phraseology, and stress (Pickett, 1980). The above features are specifically referred to as being suprasegmental because they are perceived as lasting longer than a single isolated phoneme or segment of speech sound (Pickett). Segmental features of language refer to the individual sound phonemes that combine to produce words. Prosodic segmental features are specifically the sound significance of the above features (Pickett).

Composing From Prosodic (Word) Towards Musical Rhythms

Thematic Context

In his initial approach to the conception of the water chant, Bill signaled to Carlos that he was interested in improvising with the word “water.” By making clear his intention, Bill provided a thematic canvas onto which both boys could begin painting rhythmically. By establishing a common theme, the choice of word rhythms was given a thematic limitation. The fact that the theme was derived from the physical environment and developed through the social interaction between Bill and Carlos is consistent with constructivist theories of learning (Bruner, 1985; Hanley & Montgomery, 2005). Piaget posited the notion that children learn through three distinctive stages of play: *practice play, symbolic play* and *games with rules* (1951). Without the element of playfulness that

existed between the two boys, it seems unlikely that the water chant would have occurred.

Repetition, Movement, Metric Development

During the second stage of Bill's and Carlos' composing process, the connection between rhythm in language and musical rhythm began to emerge. Somehow**,** through the combination of repetition of the thematic word "water" and corresponding rhythmic movement, the boys established a sense of meter. The establishment of meter was a crucial bridge to the subsequent development of rhythmic phrase that Bill achieved in the third stage of the composing process.

By the time I watched Bill and Carlos create their rhythmic chant, each of the boys had already had approximately four years of practice assimilating the rhythm of sounds formed by words. The process of playing with the rhythmic patterns within language begins very early (Bergeson & Trehub, 2006; Fernald, 1989; Fernald & Mazzie, 1991). Researchers have found that by focusing upon the prosodic features of language, infants develop an affinity towards the prosodic content of their mother's native language even before emerging from the womb (Bergeson & Trehub; Fernald; Fernald & Mazzie; Magne, Schon, & Besson, 2003). This orientation towards prosodic features of native language is one of the primary facilitators of language acquisition. Bill and Carlos were capable of developing their rhythmic chant precisely because they had been practising assimilating, repeating, and playing with prosodic rhythm patterns since before they were born.

To accomplish the creation of their rhythmic chant, Bill and Carlos had to rely upon their four-year-old ability to not only recognize prosodic rhythm in language but

also recognize how prosodic rhythm could be played with and expanded in a musical rhythmic sense. In addition to the large body of research focusing upon infant decoding of prosodic rhythm, many researchers have established that the brain uses a common pool of resources in its assimilation of rhythmic content common to both music and language (Brown, 2001; Gerard & Auxiette, 1992; Ilie & Thompson, 2006; Lerdahl, 2001; McMullen & Saffran, 2004; Patel, 1998, 2003; Pynte, 1998). Research supports the notion that children use similar brain functions to process both linguistic and musical rhythm.

Once Bill and Carlos had established a context and an initial word with which to improvise, "water," they proceeded to march around the wading pool while chanting the word repeatedly. Rhythmic movement is a key element of the Dalcroze Method. Dalcroze believed that one of the fundamental ways children acquire rhythmic instinct and musical meter is by internalizing rhythm through the mastery of rhythmic movement (Findlay, 1971; Spector, 1966, pp. 115-118). Through adding rhythmic marching to the chanting of their words Bill and Carlos established a sense of pulse and meter.

Motivic Development, Expansion of Vocabulary and Rhythmic Phrases

Having established a thematic context, a beginning word, and a sense of meter through repetition of the word and rhythmic marching in the pool, a large portion of the chant was in place. It was at this point that rhythmic play and experimentation began. While marching around the periphery of the pool, the boys splashed and chanted, "Water, Water, Water, Water…." until Bill had the inspiration to further connect their experience, splashing water**,** to the motivic development of the chant: "Water, water everywhere!" The boys continued chanting, splashing and marching with the newly developed phrase

until Bill added the final development: “We’re going to get wet!” Initially the boys replaced the initial phrase, “Water, water, everywhere,” with the new phrase, “We’re going to get wet.” Afterwards, the boys began alternating the repetition of each phrase, pausing slightly between each repetition. Finally, Bill combined the two phrases seamlessly into one phrase within the established meter by shifting the rhythmic phrasing. The initial setting of “where” to a quarter note was replaced by an eighth note and the first word of the second phrase, “we’re,” was shifted over to complete the rhythmic structure (see Figure 1).

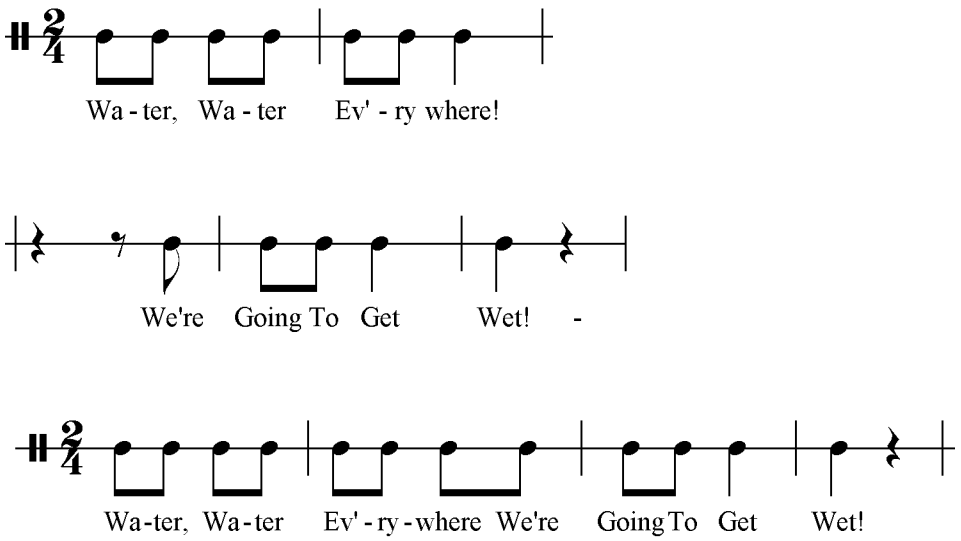


Figure 1: Rhythmic shifting: Three stages of phrasal conception

In order to achieve the completion of the rhythmic chant, Bill began to shift his focus from individual words to the way in which they functioned together to make phrases. The ability of infants and children to simultaneously perceive phrase and word boundaries has been identified as being central to both the acquisition of language and the subsequent achievement of fluidity in literacy (Bergeson & Trehub, 2006; Boisen, 1981;

Hansen, Bernstorf, & Stuber, 2007; Nketia, 2002; Patel, 2003; Saffran, 2003; Schreiber, 1991).

Composing From Musical Rhythm Towards Word (Prosodic) Rhythm

As an educator I place a high value upon providing my students with an opportunity to improvise and compose their own music. Simply put, I believe that students really begin to become engaged in music when they are given the chance to make music their own. For this reason I encourage my students to experiment with musical rhythms to create rhythms of their own.

Two methodological approaches to teaching rhythmic literacy have employed the use of a set syllabic representation of musical rhythmic values: Kodaly and Gordon (e.g., Ta = Quarter Notes, Ti-Ti= Eighth Notes) (Jordan-DeCarbo, 1986). It has been my experience that the Kodaly system of rhythmic notation provides an effective way to encourage elementary students to begin expressing musical rhythmic values. However, the use of Kodaly rhythmic symbols is not enough to lead students to think rhythmically on their own or to conceive of rhythmic phrases. On the contrary, I have learned that rote repetitions of Kodaly rhythms can be extremely tedious, and meaningless in themselves. Rather, it is the role of the teacher to encourage students to use the Kodaly rhythm symbols to create their own rhythms and to demonstrate how isolated groups and patterns of rhythm can be transformed into phrases. Teachers need to model to students how rhythm can begin to function as phrases through call/response exercises and rhythmic dialogues using what children already have learned through experience with language.

The Combination of Prosodic and Musical Rhythmic Strategies

I have noticed that my students thoroughly enjoy setting original words to the rhythms they have created and musical rhythm to their original prosodic phrases. In the development of his pedagogical methodology, Carl Orff suggested that "language must be considered as inseparable from music and movement" (Liess, 1966, p. 61). Orff approaches rhythmic literacy and musical rhythm through the child's familiarity with rhythm in language. Although several studies have supported the effectiveness of both syllabic and word approaches to rhythmic literacy (Colley, 1987; Dalby, 2005; Shamrock, 1997), I have found no studies to date that have examined the manner through which prosodic (word) and syllabic (musical) approaches to rhythmic literacy impact the compositional process. In my teaching practice, however, I have observed that in their revision of their original compositions, children seem to combine prosodic (word) and syllabic (musical) strategies.

It is during the final stage of observed composing behavior in elementary students that the combined prosodic and musical rhythmic awareness become fused within the creative process. At this point, students revisit both sides of the compositional equation, revising and modifying both prosodic rhythm and musical rhythm until both are melded as closely as possible to the composer's conception. This bilateral revisionary process has been identified as being one of the key characteristics of song-writing (Kratus, 1994; Nketia, 2002).

In my experience as a composer, I have observed that it is precisely the development of fluidity between the ability to set text to an original musical rhythm or to set an original musical rhythm to a text that characterizes my composing process.

Occasionally I have melodic ideas first, but for the most part my original conceptions begin with a rhythmic motif that has emerged either as a musical rhythm or as a rhythm derived directly from language.

It is only relatively recently that the process through which children compose music has been the subject of scholarly research (Brophy, 1996; Jorgensen, 2003; Kennedy, 2001; Kratus, 1994; Nketia, 2002; Schafer, 1965; Shehan-Campbell, 1998; Swanwick, 1999a, 1999b; Swanwick & Tillman, 1986; Wiggins, 1994, 2003). Wiggins (2003) found that when children compose music they have a "preconceived notion of what they want the music to sound like" (p. 148). Furthermore, Wiggins demonstrated that one of the primary strategies employed by children within the compositional process is that of singing or chanting their conceptions; transcriptions of Wiggins' fieldwork document students making strategic use of prosodic rhythmic knowledge. Through an examination of the compositional processes demonstrated by children across a continuum of ages, Swanwick and Tillman (1986) developed a model of musical development which ascends from interaction with materials (ages 0-4) to experimentation with expression (ages 4-9), to a beginning conception of form (ages 10-15), to the highest level of musical development – considerations of value. As each child ascends through the hierarchy of musical development he/she extends individual experimentation with each concept towards a social or group manifestation of each concept. The implication is that children navigate through the model of development commensurate with their degree of having internalized each concept. The influence of students' abilities to internalize musical concepts upon composing processes has formed the basis of much of the work of Kratus (1994). Kratus suggested that the level of child musical *audiation*[1] directly influences the

degree to which children explore within their compositional process. Kratus holds that the greater the child's ability to internalize how music will sound, the less the need to explore or experiment to test out ideas. Numerous studies have been conducted exploring the influence of cooperative learning upon learning environments (Cohen, 1994; Johnson & Johnson, 1974, 1999; Johnson and Johnson, 1999; Slavin, 1995, 1999). Inspired by the work of Swanwick and Tillman, Kratus, Wiggins, and the research pertaining to cooperative learning, I began to be curious about how students' previous level of musical development and their ability to internalize musical conceptions might influence their ability to integrate prosodic and musical content in their compositions. Would students employ such knowledge in their composing process, or would their work be characterized more by free association and random association? Would aspects of group membership influence this process?

Purpose

With the exception of Colley's 1987 study comparing syllabic methods for improving rhythm literacy, I found no research that examined the manner through which children combine their understanding of prosodic rhythm and musical rhythm in their rhythmic compositions. Several research questions began to formulate in my mind. Specifically I posed three research questions that guided my study: 1) How do children make use of prosodic and musical rhythm in their rhythmic compositions? 2) Within the composing process does one system of composing (prosodic or musical) dominate, or do children integrate these two systems in their composing processes? 3) How does group membership influence the interaction between these two composing processes? The purpose of this study was to observe, document and describe the manner through which

two separate classes of Grade 2 students made use of prosodic and musical rhythmic composing strategies to complete compositions during an eight week composition unit. Through this process it was my aim to discover more about how children isolated and/or combined these composing processes. Further, I wanted to learn about how the integration of prosodic and musical rhythmic composing processes could be mutually beneficial.

Importance of the Study

Why was the study important? It was my conviction that by combining observations of distinctive musical and prosodic strategies employed within the rhythmic composing process, a clearer picture could be obtained as to how these distinctive intelligences and skills are mutually beneficial. Specifically, I hoped to elucidate issues pertaining to musical intelligence, language intelligence, and composing intelligence.

By combining musical and prosodic strategies within a composing project, it was my belief that students would develop a more sophisticated and expanded conception of the potential of rhythm itself. I wanted to demonstrate to students that their ability to perceive rhythm in language was not separate from their perception of rhythm in music. Furthermore, I wanted to convey that focusing upon skills that they used to perceive language would help students approach an understanding of musical rhythm.

By increasing student familiarity with prosodic features of language, I wanted to heighten student perception of the phrasal grouping and flow of language. In addition**,** I believed that the specific combination of prosodic and musical perception in close proximity would facilitate further strategies for decoding and fluid streaming in both

music and language. I hypothesized that the development of such strategies might influence and improve student literacy.

It was my goal that by combining something students knew well, prosodic rhythm, with something new, musical rhythm, through something which children loved to do, improvise/compose, that I would demystify the composing process to some extent. It was my aim to bring playfulness into the music classroom. Such a playful approach is consistent with constructivist theories of learning and reflects the subjective expression which is promoted by postmodernism (Bruner, 1985; Hanley & Montgomery, 2005). Specifically I hypothesized that some aspects of student perception of prosodic rhythm, notably syllabic duration, accent, and phrase grouping would influence student musical rhythmic composing process. I suspected that students might use their familiarity with prosodic rhythm to inform the development of corresponding musical rhythmic phrases. In addition I thought it possible that by bringing musical rhythmic perception to bear upon the manipulation of language rhythm, that students might learn more about the sound significance of syllabic duration and meter as they are represented in the fusion of music and language.

Chapter 1 has provided an outline to how my examination of scholarly research reinforced the stages of composing process that I have observed in both preschool and elementary students. Subsequently, the research questions generated by an examination of composing process and research literature were presented. The next chapter describes in greater detail how the scholarly research informed my objective of observing the manner though which Grade 2 students made use of prosodic and musical rhythm in their composing processes.

CHAPTER TWO

Review of Literature

In Chapter 1, I identified four areas of inquiry that developed my understanding of how both preschool and elementary students combine their knowledge of prosodic and musical rhythm within the composing process: 1) the nature of the relationship between how the human brain processes musical and linguistic rhythm; 2) the dominant pedagogical approaches towards the teaching of musical rhythmic literacy; 3) the connection between language and music literacy; and 4) the compositional strategies and cooperative learning. The review that follows examines pertinent research within these four areas to prepare the reader for the in-depth report of my study**.**

How the Brain Processes Musical and Linguistic Rhythm

The first section of this review focuses upon research that has explored the relationship between human perception of prosodic rhythm in language and rhythm in music. Specifically this initial section discusses the relationship between prosodic rhythmic awareness and musical rhythmic awareness beginning with the ideas of Darwin and Rousseau on the origins of language. A description of research conducted into the nature of infant perception of musical and prosodic rhythm is followed by an introduction into the research mapping brain function as it relates to the processing of music and language. This section concludes with the observations literacy scholars have made regarding the relationship between music and language and scholarly work that has examined the composing process of children.

The Origins of Music and Language

The precise manner through which human beings acquire the ability to speak and sing has fascinated theorists throughout history (Besson & Friederici, 1998; Feld & Fox, 1994; Levman, 1992; Liess, 1966; Rousseau, 1966). Writing in the eighteenth century, Jean-Jacques Rousseau postulated that "primitive languages were sung not spoken" (1966, pp. 50-51). Rousseau suggested that early primitive utterances were sung with the intention of expressing "the respective passions that dictated them" (p. 50). According to Rousseau, the variety of passions associated with early primal utterances determined placement of accent and syllabic content. By contrast, Charles Darwin believed that "music evolved out of language for the sake of charming persons of the opposite sex" (Besson & Friederici, 1998, p. 2). Later in the twentieth century, Cooke (1959) explored the notion that musical elements such as rhythm, melody, and harmony are capable of rendering specific emotive meaning intrinsically.

In spite of the variety of theories regarding the evolution of music and language expressed above, the fact remains that human beings have acquired the unique ability of speaking and expressing themselves in song. The next section focuses upon research that has examined the precise manner through which infants acquire the ability to speak and sing.

McMullen and Saffran (2004) suggested that much of fetal musical and linguistic rhythmic perception occurs on the suprasegmental prosodic level, formulated from "patterns of rhythm, stress, intonation, phrasing, and contour" (p. 294). This heightened exposure to prosodic stimuli offered through the environment of the womb informs infant learning after birth. It is through continued attention to prosodic language content that

infants begin to decipher “structural information” in both music and in language (p. 295). McMullen and Saffran contend that “prosodic cues are probablistically correlated with structural boundaries such as clausal and phrasal units” (p. 295). In other words, even in their prenatal experiences of language sounds, infants begin to attend to the prosodic features of accent, intonation, rhythm (syllabic duration), and phrase length.

Several studies have been conducted with the intention of examining the manner through which infants perceive rhythm (Bergeson & Trehub, 2006; Fernald, 1989; Fernald & Mazzie, 1991; Ilie & Thompson, 2006; McMullen & Saffran, 2004). Bergeson and Trehub (2006) found that infants were capable of discerning differences in rhythmic patterns featuring strong accent on the beat in duple meter (p. 355). However, the authors found that the infants they observed did not possess this capability in their perception of differences in rhythmic patterns in triple meter (p. 355). It is not surprising then that a large number of English songs, nursery rhymes, and skipping chants, which young children find captivating, are rendered in duple meter.

The specific language from which infants take their prosodic cues has been linked to their musical and linguistic development (McMullen & Saffran, 2004; Patel & Joseph, 2003). While in the womb, fetuses have demonstrated a preference for their mothers’ voices, which indicates the possibility of prenatal development of prosodic preferences (McMullen & Saffran, 2004, p. 294). Magne, Schon and Besson (2003) defined prosody as “the music of language,” which “encompasses many different aspects, such as accents, stress patterns, and prosodic boundaries at the segmental level, and intonation and rhythm patterns at the suprasegmental level” (p. 463). This orientation towards prosodic features of native language is one of the primary facilitators of language acquisition (Bergeson &

Trehub, 2006; Fernald, 1989; Fernald & Mazzie, 1991; Magne et al., 2003). While much attention has been paid to the development of segmental prosodic features of language development, suprasegmental prosodic features of language have only recently been the subject of focus within scholarly research (Magne et al.). Further research has hypothesized that human orientation to the musical and linguistic prosodic structures inherent within native language patterns influences compositional decisions (McMullen & Saffran, 2004; Patel & Joseph, 2003; Pynte, 1998). This finding is not surprising as Pickett (1980) has pointed out that while some languages "share many articulations in common," the "prosodic rules" to which every language must conform "are unique to each language" (p. 80).

Complementing the above research pertaining to the manner through which infant attention to prosodic linguistic content influences both language development and compositional decisions is recent neurological research into the precise manner through which the human brain processes language and music. Several studies have investigated the precise comparative measurement of electro and *magnetoencephalographical*[2] neural brain activity, and general neural processing associated with the perception of both language and music (Gerard & Auxiette, 1992; Ilie & Thompson, 2006; McMullen & Saffran, 2004; Patel, 1998). Patel (1998) established that although different "cognitive operations" exist in both music and language, the "structural integration in both domains relies upon a common pool of resources" (p. 39). Similarly, Ilie and Thompson (2006) pointed out "that musical behavior and vocal communication share common ancestry," making use of "overlapping neural resources" (p. 319).

Gerard and Auxiette (1992) examined the manner through which language and musical rhythm are processed by the brain. They found that “the coordination between spoken and musical strings implies two processing systems, one for speech prosody and the other for musical rhythm” (p. 102). They further suggested that while these two processing systems are integrated in the interpretation of musical and language rhythm, one of the two “strings” of processing would invariably dominate in the process of generating a rhythm. Among children who had received musical training, the “temporal parameters of music” were seen to be dominant over “the temporal parameters of speech” as they were “less flexible” (p. 102). The experiments conducted by Gerard and Auxiette demonstrated “coordination between two motor programs, one for generating taps and the other for generating spoken sounds, in order to achieve synchronization in time” (p. 118). Thus, the findings of Gerard and Auxiette reinforce the notion that the brain coordinates both musical and speech processing systems in its interpretation of rhythm.

In his fascinating examination of the connection between language and music, Brown (2001) posited “that music and language are homologous functions that evolved from a common ancestor that embodied their shared features” (p. 372). Brown’s work suggested that through evolution some aspects of music and language have remained “shared” by human neural resources, some have, over time, developed into parallel functions, while still others have evolved to become distinct (pp. 372-374). The language and music processing resources that Brown identified as being “shared” by neural function are “the general processes of vocalization as well as affective prosody” (p. 372).

Examining the relationship between music and poetry, Lerdahl (2001) suggested that, within the domain of poetry**,** there are common structures to both music and

language (p. 353). Lerdahl concluded that “all of the items listed under ‘common structures’ belong to the domain of rhythm, which music and poetry share, and most of the items listed under ‘exclusively musical structures’ belong to tonal space” (p. 353). Within the domain of poetry itself, considerable research has explored the relationship between the development of prosodic linguistic rhythm and musical rhythm (Corn, 1997; Rickert, 1979). Rickett (1979) suggested that the “occurrence of periodic heavy and light pulse is sufficiently similar in both to translate lyrics to melodies and, hence, poems to song” (p. 61). Similarly, Corn (1997) stated that “music and poetry do (in different ways) share a concern for rhythm, certainly; and the study of rhythm is the substance of prosody” (p. 4). Thus, the research conducted by Lerdahl, Brown, Rickett, and Corn was instrumental in limiting my study to an examination of only rhythmic aspects of child composition as it is the rhythmic arena that has been identified as being subject to the use of common neural resources for both language and music (Brown, 2001; Lerdahl, 2001).

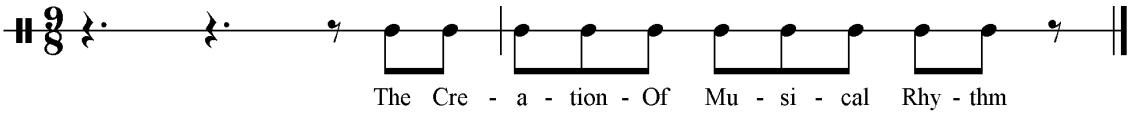
Pedagogical Approaches to Rhythmic Literacy

Several methodologies designed to develop musical rhythmic literacy, notably the Kodaly, Gordon, and Orff methods, have harnessed the human facility for recognizing rhythm in language as a strategic pedagogical means of teaching musical rhythm (Bebeau, 1982; Colley, 1987). The second section of this review elaborates upon the pedagogies described above. The commonalities and differences between each of the above methodologies are explored through an examination of studies that have compared their effectiveness. The content of this second section contributes to an understanding of the methodological design of my study, as elements of the Kodaly, and Orff methods of teaching rhythmic literacy were employed.

Syllabic Representations of Rhythmic Values

Research regarding child rhythmic development has established that children in Grade 2 have the ability to "perform, read, and write quarter, eighth, and half note rhythms" (Campbell, 2006, p. 157). The Kodaly method designates specific syllabic sounds to indicate precise rhythmic values (ta = quarter notes, ti-ti = eighth notes; ti-ri = sixteenths, shhh = rests etc.) (Jordan-DeCarbo, 1986). The Gordon method also assigns specific set syllabic utterances to represent rhythmic values (duple meter = du-de, triple and compound meters = du-da-di) (Gordon, 2003). Gordon suggests that the perception of beat is subjective and further makes the distinction between *microbeats*[3] and *macrobeats*. As perception of macrobeats is subjective, the Gordon method advocates the exclusive use of duple meter for grouping beats.

The Orff approach to teaching rhythmic literacy differs markedly from the Kodaly or Gordon methods in that it advocates the use of the actual prosodic rhythms that exist in language to convey rhythmic values (Bebeau, 1982). In this sense, the rhythm of spoken words actually generates the creation of musical rhythm. For example, the last five words of the previous sentence could be rendered as:



The Orff method considers language as being "inseparable from music and movement" (Liess, 1966, p. 61). Liess elaborates stating that, "Orff attempts to demonstrate this connection by making the music of Shulwerk correspond to the textual material of folk-song, fairy story and legend in their appeal to the child's fantasy world" (p. 61). Within

the Orff method “the emphasis is on developing improvisational skills through speech” (Jordan-DeCarbo, 1986, p. 41).

The Kodaly, Gordon, and Orff methods of teaching rhythmic literacy all share a *sound-to-symbol* approach (Jordan-DeCarbo, 1986) and each makes use of multiple modes of perception—listening, moving, and seeing—to integrate rhythmic experiences. Multiple modalities of teaching rhythm have been shown to be more effective than approaches that emphasize a single mode of perception (Persellin, 1992). Persellin found that Grade 1 students performed better reading rhythms if they were presented through multiple modalities than through visual means alone.

A number of studies have been conducted to examine the comparative effectiveness of the various combinations of the above methods of teaching rhythmic literacy. In her research focusing upon second grade and sixth grade students, Shehan (1987) demonstrated that “the pairing of *mnemonics*[4] and the rhythm itself with the notation seem to be the most efficient avenue for the recall of a rhythmic pattern for performance” (p. 124). Bebeau (1982) published results that implied that the use of a speech-cue method derived from a hybrid of the Orff and Kodaly methods of teaching rhythm literacy was more effective than the traditional[5] method in her examination of third grade students (p. 117). A study conducted by Schleuter and Schleuter (1985) presented evidence that kindergarten students benefited from the use of verbal chanting as a strategy of reproducing rhythms (p. 28). Colley (1987), who conducted a study that compared the Kodaly, Gordon, and “Word” (Orff) methods of teaching rhythmic literacy to Grade 2 and Grade 3 students, found that the “mnemonic word method proved to be more effective than either the Kodaly or Gordon methods for improving dictation skills

and overwhelmingly more effective than the other methods for improving performance skills" (pp. 232-233). Colley's study further demonstrated that "both the word and Gordon methods were significantly more effective than the Kodaly method" (p. 230). Students using the Kodaly method experienced difficulty differentiating between rhythmic values indicated and conveying metrical stress.

My own experience teaching children rhythm using Kodaly rhythmic symbols concurs with Colley's (1987) observations. Although Kodaly rhythmic symbols offer a launch pad from which students can begin to express themselves in musical rhythm, students require guidance from their teachers in order to understand how isolated patterns of rhythm can begin to function together as rhythmic phrases.

The Connection Between Music and Language Literacy

According to Cooper, popularly held conceptions of how to define the word literacy have expanded in recent years (Hansen et al., 2007). Cooper credits the research of Vygotsky (1978), Halliday (1975), Clay (1992), and Teale and Sulzby (1986) with broadening the definition of literacy from the perspective of exclusively "the ability to read and write" to a more encompassing description of "the ability to communicate in real world situations which involves the abilities of individuals to read, write, speak, listen, view, and think" (Hansen, Bernstorf, & Stuber, 2007, p. 2) In *The Literacy Dictionary* compiled by Harris and Hodges, 37 forms of literacy are described (Hansen et al., 2007) and Soares, subsequently reporting for UNESCO, stated that there were multiple forms of literacy.

The notion that the process of learning to read is a multifaceted interweaving of a variety of forms of human intelligence is the central premise in Armstrong's (2003) book,

The Multiple Intelligences of Reading and Writing. Armstrong argues that Howard Gardner's theory of Multiple Intelligences ought to be integrated into all successful literacy programs (p. 12). The book outlines how each of Gardner's forms of intelligence can inform and stimulate the process of learning to read. In the introduction to the segment focusing upon stimulating literacy through musical intelligence, Armstrong writes:

> Although we may be aware of it only when we hear someone sing or recite poetry, or when we hear the violations of the natural rhythm of language…it's true that all the words that come out of our mouths (as well as the lines that emerge from our pens and word processors) ride upon a stream of music. To help individuals achieve literacy, it seems critically important that we acknowledge this important connection between words and music and use it as fully as we can to help our students read and write more effectively. (p. 55)

Armstrong's notion that a combination of human intelligences informs and stimulates the process of becoming literate was one of the guiding principles of this study.

Hansen, Bernstorf, and Stuber (2007) suggested that students develop stronger language cueing system awareness through their creation of skipping rhymes, chants, and parodies (pp. 49-50). These authors also stated that the focus upon fluency over accuracy inherent within musical learning will help beginning language readers develop fluency in reading:

> The nature of music encourages students to maintain fluency over accuracy when producing rhythms and pitches during music sight-reading, when singing, even when playing an instrument – and especially if it means singing the wrong note or

> putting in “la-la-la” when words are too difficult to read. This experience of fluency is inherent in virtually every music event. (p. 50)

Hansen and Bernstorf (2002) have observed that one aspect of “learning music-symbol reading” involved the use of “syllabic division” of language through such activities as children singing the syllables in “their own names” (p. 18). They claim that such syllabic division of language sounds is related to musical decoding skills employed by children as they “learn to echo-clap rhythmic patterns and then generate their own patterns for others to echo” (p. 18). Ehri, Nunes, Stahl and Willows (2001) further found that “systematic phonics instruction,” which incorporates such language development skills as syllabic decoding, “is a valuable part of a successful reading program” (p. 432). Ehri et al. also found that “systematic phonics instruction has often been portrayed as involving ‘dull drill’ and ‘meaningless worksheets’” (p. 432). They pointed out that “few, if any studies have investigated the importance of the motivational qualities of phonics programs” (p. 432). Ehri et al. added that “the specific techniques and activities used to teach phonics need to be relevant, motivating, and interesting in order to hold children’s attention and to promote optimal learning” (p. 432). One of the aspirations of my study was that by providing students with an opportunity to combine linguistic and musical rhythmic understanding within composition projects musical rhythmic development and language rhythmic development would be mutually supportive.

Composition Strategies and Cooperative Learning

Although I found no studies that examined the manner through which children combine prosodic and musical rhythm within composition projects, numerous studies have examined student composing processes (Bamberger, 1991; Brophy, 1996; Kennedy,

2001; Kratus, 1994; Nketia, 2002; Pietra & Campbell, 1995; Schafer, 1965; Sloboda, 1985; Swanwick, 1999a, 1999b; Swanwick & Tillman, 1986; Wiggins, 1994, 2003; Wilson & Wales, 1995). Researchers have focused upon the manner through which students employ problem-solving strategies within their composing processes (Berkley, 2004; Delorenzo, 1989; Wiggins, 1994**,** 2003) and have explored the features of rhythm and meter within composing processes (Bamberger, 1991; London, 2004; Sloboda, 1985, Wilson & Wales, 1995). While I found few studies that have examined the influence of cooperative learning upon music composition projects (Campbell, Kassner, & Scott-Kassner, 2006; Kassner, 2002), research has been conducted with regards to cooperative learning in other subject areas (Cohen, 1994; Johnson & Johnson, 1974, 1999; Slavin, 1995, 1999). The fourth section of this literature review describes research that has examined compositional strategies employed by children, aspects of cooperative learning, and the influence of cooperative learning upon music education. Research that has directly or indirectly addressed the role of prosodic rhythm within the compositional process is highlighted.

Composition Strategies

Based upon extensive observations of the compositional processes exhibited by children across a continuum of ages, Swanwick and Tillman (1989) suggested that children functioning at the expressive level of their model of musical development (ages 4-9) begin to create melodic and rhythmic patterns. The authors believe that children ascend from initial attempts at imitation towards work featuring personal expression and ultimately begin to incorporate conventional musical vernacular into their work. Swanwick and Tillman further maintained that children functioning at the expressive

level begin to represent meter in their works as well as, “the structure of phrases which increasingly tend to fall into two, four, or eight bars” (p. 319). Wilson and Wales (1995) examined the manner through which 7 and 9 year old children represented both melodic and rhythmic features within their music compositions. Having rated compositions according to their correspondence to three developmental levels of both melodic and rhythmic development, Wilson and Wales found that fewer compositions were rated at the highest level for rhythmic development. Further, the study revealed that rhythmic development progressed with age and musical training.

In addition to studies regarding child melodic and rhythmic development within the context of music composition, researchers have examined the manner through which children employ problem-solving strategies in their composing processes. Wiggins’ (1994) work with two Grade 5 students suggested that students used problem-solving strategies to progress from considerations of a logistic nature towards the consideration of motivic elements and ultimately conceptions of form. Wiggins demonstrated, in her observation of the processes through which the students approached composition projects, three over-riding strategies employed by the students. She stated that her students consistently 1) began to focus upon holistic features, 2) dissected works and isolated motivic elements for development, and 3) reassembled, or put the pieces back together (pp**.** 241-250). Echoing Wiggins’ findings, Delorenzo (1989) has suggested that the extent to which Grade 6 students perceived “choices” within “problem situations” influenced the outcome of compositions (p. 195). Delorenzo stated that students “who perceived few choices in the given problem situation, tended to repeat initial sound events with little change, organize compositions as a collection of isolated musical bits,

and complete the piece early in the process" (p. 195). Alternatively, Delorenzo observed that students "who perceived many choices in the given problem situation, tended to explore musical events at greater depth, continually adjust and revise elements of the emerging composition, and spend less time determining the structure of the piece" (p. 195). Berkley (2004), characterized the "composing process" itself as a progressive form of problem analysis. She described the "composing process" as "an analysis of the compositional problem, where decisions are validated by testing the hypotheses devised by the student against the compositional outcomes that emerge as the piece progresses" (p. 249).

Lynn, one of the key informants in Wiggins' (1994) study, demonstrated in her comments that during each of the three stages of development she was employing the use of prosodic transcription as a dominant strategy (pp. 246 & 249). The fact that one of Wiggins' key informants was making use of prosodic strategies in her approach to composing reflects research that has examined the manner through which students learn songs. Research conducted into the nature of the development of the ability to reproduce songs has confirmed the dominant position of deciphering prosodic content within the hierarchy of learning strategies (Gerard & Auxiette, 1992). Gerard and Auxiette concluded that the order of strategies in the learning of songs is as follows: "first of all, words are learned, then rhythm, then the melodic contour, and finally the exact tonal intervals between notes" (p. 118).

The notion that experimentation with prosodic material constitutes an important aspect of both composing music and learning songs that children naturally gravitate towards is further supported by the work of Campbell (1998). Campbell explored and

documented, through a series of ethnographical observations of elementary school children of a variety of ages at play, the phenomenon of children “spontaneously” creating their own music (p. 69). Children were observed in a variety of settings: in the playground, in a toy shop, in music class, in the cafeteria, on a school bus. In the following quote**,** Campbell identifies and describes multiple instances of their musical utterances:

> Usually brief in duration, utterances may be comprised of spoken words, or words in syllables that are sung or rhythmically chanted. “Musical utterances” are essentially musical phrases that flow effortlessly from ideas somewhere deep within the mind’s ear. They are indeed the (short) songs in children’s heads. (p. 67)

In addition, Campbell (1998) identified numerous instances of children spontaneously improvising rhythmic conceptions. Campbell described multiple instances of students who “rapped, tapped, slapped, and played their rhythms on themselves, on tables, chairs, desks, and floors, and on real instruments” (p. 69). She documented frequent examples of students responding physically to “sounds they may have heard, gesturing with their hands and arms or moving their entire bodies rhythmically to some external or internal pulse or pattern” (p. 69). Campbell referred to this phenomenon as *rhythmicking*.

Campbell (1998) advocated the planning of authentic interventions on the part of teachers. She argued that, by listening and connecting to the musical worlds that already exist within their students, teachers can strive to bring children’s experience of music into the formal music education environment. Interventions are authentic “when they are

rooted in children's actual needs and interests, rather than a prescription that is without a base in the reality of children's own thoughts and doings" (p. 197). The spontaneous music-making behaviours that Campbell documented inspired her to re-examine her conception of the potential of music education. Having observed countless instances of children spontaneously creating their own music, Campbell resolved that her new aim was to "find ways to blend their music with my music" (p. 31).

While research conducted by Campbell provides abundant accounts of children spontaneously creating their own music, other researchers have observed how children represent rhythm in their own compositions. Through an examination of drawings fourth grade children made of their rhythmic compositions, Bamberger (1991) made some interesting observations regarding motivic and metric perception. She noticed that there were two trends which characterized the drawings. Some of the children's drawings were informed by perception of groupings of rhythmic figures (motivic focus). Bamberger referred to these drawings as "figural." A second group of students created rhythmic drawings that represented the duration of individual notes (metric focus). Bamberger referred to these drawings as "formal." According to Bamberger, child production of either figural or formal drawings reflected two different, yet complementary modes of perceiving rhythm. As Bamberger observed that most children and adults "hold tenaciously" to their figural or formal perception of rhythm, she suggested that attempts to perceive the unfamiliar form of perception would instill perceptual disorientation. She explained:

> For the person who attends to the metric aspects of the rhythm, figures remained unrecognized; for the person who attends to figures, the classification of events

> according to their shared duration remains inscrutable. As a result, for one person to see/hear as another does, he must quite literally come to hear in a new way and in doing so entails risking the queasy discomfort of cognitive and perceptual disorientation: the very means that have served each person so well in making sense of familiar phenomena are pulled out from under him. (p. 29)

Bamberger (1991) subsequently presented a fictional exchange between two characters, Mot(ivic) and Met(ric), in an attempt to illustrate the manner through which students representing the motivic and metric modes of rhythmic perception had interacted in her past teaching experience. By including herself as a third character in this exchange, Bamberger described a fictitious verbal exchange through which the conflict between these two forms of rhythmic perception could be resolved. In the fictitious exchange, the teacher, (Bamberger), demonstrated that both figural and formal perception could be present at the same time, but that their significance was determined by functional context (p. 44).

Like Bamberger (1991), the close integration inherent within the perception of rhythm and meter was the focus of both Sloboda (1985) and London (2004). Sloboda characterized this relationship using the analogy of a tree, stating that "the structure underlying the rhythm of a piece of music is often a metrical tree" and subsequently that "sometimes the tree has several nested levels" (p. 47). Echoing the distinction between motives and metric perception noted by Bamberger, London (2004) defined the differences between rhythm and meter: "Rhythm involves patterns of duration that are phenomenally present in the music, and these patterns often are referred to as *rhythmic groups"*[6] (p. 4). In contrast, London suggested that "meter involves our initial perception

as well as subsequent anticipation of a series of beats that we abstract from the rhythmic surface of the music as it unfolds in time" (p. 4). Both Sloboda (1985) and London (2004) observed that child perception of meter is acquired through natural day-to-day interaction with the musical environment inherent within a cultural context. Sloboda described this process as enculturation and further suggested that enculturation was the primary means through which children acquire musical knowledge until they are approximately 10 years old (1985). London, on the contrary, described the above process of assimilating musical knowledge as a form of "entrainment behaviour" (p. 6). London elaborated on the significance of this assimilation process, stating that "metric entrainment allows listeners to synchronize their perception and cognition with musical rhythms as they occur in time" (p. 5).

While the above research has provided an overview of research related to compositional strategies employed by children, it remains to consider how the sharing of such creative ideas influences the composing process. How does group membership facilitate such individual creative ideas? The following section will address research pertaining to cooperative learning.

Cooperative Learning

As my study focused upon group composition, research pertaining to cooperative learning was pertinent. This section reviews research regarding the essential features of cooperative learning, its implication with regards to group productivity, leadership roles, member status, cooperative learning and music education.

Essential Features of Cooperative Learning

In a review comparing the effectiveness of competitive, cooperative, and individualistic goal structures upon learning outcomes within learning environments, Johnson and Johnson (1974) presented research that indicated "the most desirable goal structure for promoting achievement in problem solving tasks" was a "cooperative one" (p. 221). In later research, Johnson and Johnson (1999) distinguished three types of cooperative learning: *formal*, *informal*, and *cooperative base groups*. According to these authors, formal cooperative learning differed from informal and cooperative base groups in that it consisted of students combining their efforts to "achieve shared learning goals and complete specific tasks and assignments" (p. 68). Johnson and Johnson (1999) further outlined five essential elements that characterized cooperative activities: 1) positive-interdependence, 2) individual accountability, 3) face to face promotive interaction, 4) social skills, and 5) group processes. Each is described briefly below.

Positive-interdependence refers to the extent to which students believe that their success is dependent upon the successful achievement of all members of the group. Johnson and Johnson recommended that positive-interdependence could be promoted through the establishment of "mutual learning goals," the offering of "joint rewards," by dividing assignment resources, and by assigning "complementary roles" (1999, p. 71). Slavin (1995) also stressed the importance of establishing group goals suggesting that "when students work together toward a common goal, as they do when a cooperative reward structure is in place, their learning efforts help their groupmates succeed" (p. 16).

Individual accountability was described by Johnson and Johnson (1999) as being instrumental in ensuring that each individual learns through his/her involvement with the

group. They recommended individual testing, representing one individual's work to the group as a whole, or having individuals explain their contributions as a means of ensuring individual accountability. Slavin (1995) concurred stating that "cooperative learning has its greatest effects on student learning when groups are recognized or rewarded based on the individual learning of its members" (p. 41). Slavin further suggested that groups lacking individual accountability may suffer the consequence of having only certain students completing group work while others contribute little, engaging in "social loafing" (p. 42).

According to Johnson and Johnson (1999) the third element identified as being essential to cooperative learning was face to face promotive interaction. The authors suggested that the quality of learning increased to the extent that group members promoted each others learning through group interaction. Examples of face to face promotive interaction described by Johnson and Johnson included "helping, assisting, supporting, encouraging, and praising each other's efforts to achieve" (p. 71).

In preparation for involvement in cooperative groups, Johnson and Johnson (1999) suggested that group members with little experience of cooperative learning need to be taught social skills deemed pertinent to the group's success. Examples of social skills identified by Johnson and Johnson as being pertinent included aspects of leadership, decision-making, trust-building, communication, and conflict-management (p. 71). Slavin (1995) described the use of "direct strategy instruction" as an effective way to "enhance the effects of a technique related cooperative learning" (p. 44). He explained the latter as a process through which teachers modeled a specific set of social skills and

then transferred “responsibility to the students to carry on these activities with each other” (p. 44).

The final essential element of cooperative learning was group processing. Johnson and Johnson (1999) described the importance of providing group members with an opportunity to evaluate the extent to which they were “achieving their goals and maintaining effective working relationships” (p. 71). In this manner Johnson and Johnson suggested that group members could collectively identify aspects of group involvement that were working and those that were not.

Group Productivity, Leadership Roles, and Member Status

Cohen (1994) conducted a review of research with regards to the productivity of cooperative learning. Rather than focusing upon the mere question of whether or not small groups were a more or less effective means of learning, Cohen sought to shed light upon the specific aspects of cooperative learning contexts which were productive (p. 2). Cohen began by defining a group task as:

> a task that requires resources (information, knowledge, heuristic problem-solving strategies, materials, and skills) that no single individual possesses so that no single individual is likely to solve the problem or accomplish the task of objectives without at least some input from others. (p. 8)

Next, she distinguished differing types of group problems. While some problems feature clear definitive solutions, as is evident in mathematics, others demand open ended solutions. Cohen described group problems that demand open-ended solutions as being “ill-structured problems” (p. 8). As composition is a process which involves open-ended solutions, group composition tasks, according to Cohen’s definition would be considered

"ill-structured." Cohen suggested that when cooperative groups are engaged in the process of producing solutions to ill-structured problems, "interaction is vital to productivity" (p. 8).

Cohen (1998) further examined research that indicated that students exploring solutions to "ill-structured" problems would only expect a positive outcome to the extent that they perceived all group members were contributing towards group goals (p. 12). Citing Deutsch (1967), Cohen suggested that one of the pervasive problems identified in the reviewed literature was that "individuals perceive that they can achieve their goal if and only if the other individuals they are cooperatively linked to also achieve their goals" (p. 12). Focusing upon the impact of leadership roles upon group interaction within high school music composition groups, Allsup (2003) echoed Cohen's description of the need for "positive group inter-dependence" (p. 12). In his study, Allsup found that leaders expressed a sense of being pressured by the lack of contribution of other group members (p. 30). He explained:

> The situation becomes difficult when the more experienced players do not feel that the newer collaborators are contributing equally. Colin, in particular, raised concerns throughout the study that unless every member feels compelled to contribute, the group suffers. It was incumbent upon the ensemble to get people who are already into it and who can actually put forth their own ideas. (p. 30)

One of the central obstacles posed to small cooperative groups according to Cohen (1994) is that caused by inequalities of group members due to status perception. According to Cohen, two of the most pervasive "status characteristics" evident within the classroom are "academic status" and "peer status" (p. 23). Cohen stated that learning

groups were “much more likely” to “approve of leadership on the part of a good student,” while conquests for leadership on the part of “poor students was likely to be disapproved” (p. 23). Finally Cohen presented research that suggested that the determination of academic status may not necessarily be derived from the task at hand (p. 24). Citing Webster and Driskell, (1983) and Rosenholtz and Wilson, (1980), Cohen concluded that “peer status” is a prominent source of inequality that “is often highly correlated with academic status” within cooperative groups (p. 23).

Cooperative Learning and Music Education

While the above research provided valuable information regarding the nature of cooperative learning and its implications for certain subject areas, I found very little material regarding the incorporation of cooperative learning within music education programs. Kaplan and Stauffer (1994) and Kassner (2002) provided suggestions on how to implement cooperative learning projects within music programs, but neither of these resources presented research that had been conducted in a music context. Virtually no research has specifically examined the influence of cooperative learning upon music composition projects. In the absence of research in this area, I examined studies investigating teacher student interactions within the context of music composition by Barrett, (2006) and Barrett and Gromko (2007). In addition, a review by Burland and Davidson (2001) regarding the influence of specific social groupings upon compositional quality provided further insight into group influence upon music composition.

In their examination of interactions between a composer-teacher and a composer-student Barrett and Gromko (2007) found that “the nature of teaching and learning when engaged in an artistic enterprise where the focus is a student’s creation of an original

artwork differs from the process by which a student might work to achieve a more specific predetermined outcome" (p. 227). An interview with an "eminent" teacher-composer conducted in an earlier study by Barrett (2006) suggested that the role of the teacher within a university composition context was more concerned with collaborating with students to find their individual forms of expression than with providing information. Commenting on his method of teaching composition, the teacher-composer stated:

> One of the important characteristics is that it was a way of assessing the student's interests and what voice the student was trying to form via those interests, the fact that they had chosen this particular form, they had chosen this language and it was closer to what I think education is in the sense of drawing out, rather than shoving information in. (p. 212)

While not focusing upon cooperative learning specifically, Burland and Davidson (2001) investigated social processes in musical composition. Acknowledging the fact that they had found minimal research that had examined "the implication of group work in music education," the authors studied the influence of five distinctive social groupings upon "compositional quality and the quality of interactions" among children aged 10 to 11years old in two separate schools (p.48). One of the schools enjoyed a "reputation for music activities" and one did not (p. 48). The five social groupings examined included: friendship, non-friendship, matched-intelligence, mixed-intelligence, and random. While social grouping was found to have no influence upon compositional quality, it was deemed to have a "significant effect on the quality of interaction" (p.53).

Summary

Chapter 2 examined literature that is associated with the four areas of inquiry that were identified in Chapter 1. An examination of research conducted into the manner through which the brain processes musical and linguistic rhythm highlighted a number of findings that had a direct bearing upon my study. Recent research suggested that infant perception of prosodic stimuli in the womb informs subsequent post-natal decoding of information common to both language and music. A growing body of research provided support for the notion that the brain uses common resources to process rhythm in language and rhythm in music. A review of the pedagogical approaches to teaching rhythmic literacy established that both syllabic (musical) and prosodic (word) strategies have been employed. The methodologies of Kodaly, Gordon, and Orff were discussed respectively. A description of research investigating the connection between music and literacy provided a conceptual basis for the possible benefit of integrating musical and prosodic rhythm. An examination of research focusing upon child composing processes established that children demonstrate consistent composing behaviours and processes in their work. Finally, a review of literature pertaining to group productivity and cooperative learning provided important information relevant to the influence of group membership upon the composing process.

Having examined pertinent literature that forms a conceptual framework for this study, Chapter 3 describes the methods that were employed in this study.

CHAPTER THREE

Methodology

This chapter describes how the data for this study were obtained. Following a description of the research design, Chapter 3 outlines the setting, pedagogical considerations, teacher roles, procedures and data collection, and data analysis techniques associated with the present study. In addition, this chapter describes the measures that were taken to verify the trustworthiness of the research findings.

Research Design

The study was conducted using a qualitative collective instrumental case study design. In order to clarify my choice of research methodology, I first define qualitative research, identify some differences between quantitative and qualitative research methods, and explain why a qualitative research design was more appropriate for the study. Subsequently a brief description of the nature of case study research is provided as well as an explanation as to why a collective instrumental case study design in particular was chosen for my study.

Creswell (2007) has developed a “broad definition” of qualitative research (p. 37). According to Creswell:

> Qualitative research begins with assumptions, a worldview, the possible use of a theoretical lens, and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under study and data analysis that is inductive and establishes patterns or themes. The

> final written report or presentation includes the voices of participants, the reflexivity of the researcher, and a complex description and interpretation of the problem and it extends the literature or signals a call for action. (p. 37)

Creswell's definition reflects the complex nature of qualitative research, suggesting that at best, documentation of reality is a cooperative approximation between researcher and research subjects. Creswell's definition is indicative of several characteristics of qualitative research, namely, that the researcher intrinsically brings his/her own "theoretical lens" to the research, that reality is best glimpsed in naturalistic settings, and that no one perspective is capable of rendering an accurate complete description of reality (p. 37).

Qualitative research methodology can be further defined through comparison to quantitative research methodology. Stake (1995) makes three distinctions between quantitative and qualitative research: "(1) the distinction between explanation and understanding as the purpose of inquiry, (2) the distinction between an impersonal and a personal role for the researcher, and (3) a distinction between knowledge discovered and knowledge constructed" (p. 39). According to Stake, researchers involved in quantitative research have as their objective the search for "explanation or control" of specific phenomenon (p. 37). In contrast, researchers involved in qualitative research tend to strive for "an understanding of the complex interrelationships among all that exists" (p. 37). Quantitative researchers seek to make generalized conclusions based upon objective measurement of "cause and effect relationships," whereas qualitative researchers tend to seek out "individual cases and contexts as important to understanding" (p. 37). While quantitative researchers tend to distance themselves from any form of personal

interpretation, seeking to draw generalizations based upon objective sources of data, qualitative researchers use “subjective judgment, analyzing, synthesizing, all the while realizing their own consciousness” (p. 41). Stake’s third distinction between quantitative and qualitative research pertains to the worldview that is intrinsic to each method. He suggests that quantitative research is informed by the conviction that knowledge is determined through careful replicable scientific observation of external reality (pp. 100-104). In contrast, Stake explains that most qualitative research is informed by a constructivist viewpoint. In other words, most qualitative researchers believe that reality is a collective construction, that “what they know of reality is only what they have come to believe, not what they have verified outside their experiences” (p. 100). The essential difference implied by the above distinctions is that quantitative inquiry holds that the external world already exists, awaiting careful methodological measurement, while qualitative inquiry stems from the premise that reality is constructed and that it can best be viewed through multiple perspectives (pp. 100-104).

All three of the distinctions between quantitative and qualitative research described by Stake contributed to the choice of a qualitative approach for my study. Composing is an elusive, highly subjective process. It was my aim as a researcher primarily to understand what was happening within each Grade 2 composing group with the assumption that each group’s process would be distinctive. The choice of a qualitative design allowed me the versatility of fluctuating between the roles of teacher and researcher. A qualitative design also allowed me the opportunity of recording my own day to day personal observations of what transpired in a journal, updating my subjective impressions as they emerged naturally. I entered into my study with the understanding

that group composing process cannot possibly be documented from one viewpoint. A qualitative research design allowed me the freedom to incorporate multiple perspectives into my representation of the composing process. Reflecting Creswell's definition, the use of a qualitative design provided me with the opportunity of including the perspective of both researcher and research subject into my representation of what took place.

Stake's assertion that quantitative and qualitative research inquiries are informed by fundamentally different world views is echoed in the work of Lincoln and Guba (1985). They explain that it is in large part these fundamental differences in world view held by quantitative and qualitative researchers that have led to differences of opinion regarding the manner through which "trustworthiness" ought to be established regarding the validity of research results (pp. 289-294). Lincoln and Guba explain that the conventional paradigm of research has established four criteria for evaluation: 1) internal validity, 2) external validity, 3), reliability, and 4) objectivity (pp. 290-293). They argue that each of the above criteria for evaluation present fundamental problems to those conducting naturalistic inquiries.

Lincoln and Guba (1985), citing work by Campbell and Stanley (1963), point out that conventional research designs have attempted to demonstrate a single tangible reality through presentation of findings that demonstrate "an isomorphism (a one to one relationship) with that reality" (p. 294). They suggest that this isomorphism is intrinsically impossible to establish. On the contrary, they suggest that it is precisely because we have questions about reality that launches research inquiry in the first place (p. 295). Like Stake, Lincoln and Guba hold that reality cannot possibly be represented

by one view. Rather they suggest that reality can only be glimpsed through the combination of multiple perspectives (pp. 295-296).

Lincoln and Guba (1985) explain that the use of external validity as an approach to establishing the trustworthiness of qualitative research is problematic because “it is based upon a conventional axiom that is rejected by the naturalist paradigm” (p. 297). They reiterate that naturalists do not believe that isomorphic explanations can be generated from external reality. Rather they contend that researchers conducting naturalistic inquiries believe the opposite, that “only through working hypotheses can reality be abstracted” (pp. 297-298).

According to Lincoln and Guba (1985) naturalistic researchers do not believe that reality is replicable. Further, they hold that attempts to replicate reality have traditionally taken place in controlled environments which themselves are separate from reality itself. They explain: “Replicability in the traditional sense can be determined only within a given framework – and that framework is itself a construction, not an inevitable and unchanging part of ‘reality’” (p. 299).

Lincoln and Guba (1985) maintain that what has been deemed objective by conventional research has been established through intersubjective agreement between the experiences of many individuals (p. 300). They purport that objectivity ought not to be determined by the convergence of intersubjective consensus but rather upon the characteristics of data themselves (p. 300).

Having established that traditional forms of establishing trustworthiness of research findings have been intrinsically problematic to naturalistic researchers, Lincoln and Guba (1985) proceed to designate five techniques, which in their opinion can render

a degree of trustworthiness to naturalistic research: 1) prolonged engagement, 2) persistent observation, 3) triangulation, 4) peer review, and 5) negative case analysis (p. 301). Two of the above techniques (persistent observation and triangulation) were employed in the completion of this study. The specific manner through which each technique was employed is addressed in the discussion of data analysis techniques below.

Having described the nature of qualitative research and the criteria for evaluation of trustworthiness of qualitative research findings, the question remains: Why did I choose to conduct case study research? In order to clarify my reasoning, I review the nature of case study research and examine the circumstances under which case study scholars have deemed it to be a useful as a method of inquiry. Stake (1995) claims that case study research is the attempt to "catch the complexity of a single case" (p. xi). He clarifies that case study research seeks to explore contexts that have been deemed to have "very special interests" (p. xi). Stake explains:

> We study a case when it itself is of very special interest. We look for the detail of interaction and its contexts. Case Study is the study of the particularity and complexity of a single-case, coming to understand its activity within important circumstances. (p. 3)

Yin (1994) offers a more detailed definition of case study research, which consists of two distinctive features. According to Yin: "1. A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (p. 13).
In this sense, Yin concurs with Stake that researchers choose specific "contextual conditions" that they believe might be "highly pertinent" to their "phenomenon of study"

(p. 13). The second component of Yin's definition of case study research pertains specifically to "other technical characteristics" such as "data collection and data analysis strategies" (p. 13). Yin states that case study inquiry copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result

> • relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result
>
> • benefits from the prior development of theoretical propositions to guide data collection and analysis. (p. 13)

While the above definitions provide explanations of what case study research consists of, they do not provide a rationale for the use of case study research. Yin (1994) suggests that a researcher's choice of research strategy is determined by the type of question he/she asks. Yin maintains that "how" and "why" questions frequently guide researchers towards the use of case study research. He states:

> "How" and "why" questions are more explanatory and likely to lead to the use of case studies, histories and experiments as the preferred research strategies. This is because such questions deal with operational links needing to be traced over time, rather than mere frequencies or incidence. (p. 6)

Yin's above comment was relevant to my own inquiry as case study research offered me the opportunity to trace the chronological development of the manner through which children composed rhythms over the duration of the study. According to Yin, it is precisely through organizing events into chronological order that allows researchers to hypothesize regarding causality of events, "because the basic sequence of a cause and its

effect cannot be temporally inverted" (p. 116). Yin explains that the important facet of the use of chronology, one of several forms of "time-series analysis," is that it allows researchers an opportunity to ponder their "how" or "why" question over time rather than focusing upon aspects of time alone (pp. 117-118).

Consistent with the ideas expressed by Yin, I decided to conduct a case study inquiry because all three of my research questions were "how" questions. The questions that guided my study were: 1) How do children make use of prosodic and musical rhythm in their rhythmic compositions? 2) Within the composing process does one system of composing (prosodic or musical) dominate, or do children integrate these two systems in their composing processes? 3) How does group membership influence the interaction between the two composing processes? Because my goal was to examine how Grade 2 children made use of prosodic and musical composing strategies in their compositions, a case study design was deemed appropriate. By describing the chronology of the evolution of student compositions, it was my goal to attempt to trace the emergence of themes of composing behaviour.

Stake (1995) distinguished between "intrinsic" and "instrumental" case studies, describing intrinsic case studies as those generated by contexts with intrinsic interest to the researcher. He explains:

> It happens when a teacher decides to study a student having difficulty, when we get curious about a particular agency, or when we take the responsibility of evaluating a program. The case is given. We are interested in it, not because we learn about other cases or about some general problem, but because we need to

> learn about that particular case. We have an intrinsic interest in the case, and we may call our work *intrinsic case study*.[7] (p. 3)

Stake identified an instrumental case study as one being fuelled by "a research question, a puzzlement, a need for general understanding" rather than the intrinsic case itself (p. 3). Stake further suggested that the use of more than one instrumental case study can lead to "important coordination between the individual studies" (pp. 3-4). In such circumstances, he suggests that the work is called "collective case study" (p. 4).

The use of a collective instrumental case study was deemed appropriate for my study as my purpose was to observe, document and describe the manner through which two separate classes of Grade 2 students made use of prosodic and musical rhythmic composing strategies to complete compositions during an eight week composition unit. All observations, documentations, interpretations and descriptions were conducted with the distinctive aim of addressing the research questions rather than simply documenting the cases themselves (as is the objective with intrinsic case study).

Teacher/Researcher Roles

According to Stake (1995) one role of constructivist case study researchers is that of testing hypotheses about observations of what we observe (reality) and of integrating the observations of others into our own. Stake identifies the description of the reality of observable events within a case study context as being "a collective making" (p. 102). As no one representation within a constructivist model is paramount to others, the dual role of educator and participant/observer fosters the documentation of multiple perspectives, which according to Stake enriches the description of the case. The provision of an instructional model that incorporates both teacher-directed models and constructivist

learning opportunities is supported by Bruner (1985), who has advocated the use of multiple models of learning within learning contexts. Throughout the duration of this study I functioned in both teacher and researcher roles. The more familiar the students became with the two respective sequential processes of composing, the more freedom I gained to observe during class time from the perspective of researcher.

Setting

The research site was an elementary school located in a quiet middle class neighbourhood in the western section of Montreal, Quebec. For the purpose of this study the elementary school is referred to as Côte St. Luc. Students represent a diverse population of multi-ethnic backgrounds. The school is bilingual offering French Immersion from Pre-Kindergarten to Grade 3 and bilingual programming for students in Grades 4-6. All students enrolled have weekly 40-minute music classes taught by the researcher.

Music classes in the first cycle (Grades 1 and 2) are bilingual. The fact that children are instructed in both English and French affected the observations of composing behavior. Instruction of rhythmic composing techniques in this study was delivered in English. Research described in the review of literature supports the notion that children begin streaming prosodic patterns in the language of their mother tongue even before they leave the womb (McMullen & Saffran, 2004; Patel & Joseph, 2003). The latter findings suggest that children have primal access to their understanding of prosodic rhythm within their mother tongue in their approach to prosodic rhythmic composition. For the majority of students at the school, English is the mother tongue. No restriction of language was placed upon students when they began to compose their rhythms. Had any

students used French words in the formulation of their rhythmic compositions, they would have been encouraged to do so. However**,** in this study all of the students composed their rhythms in English.

While all students composed their rhythms in English their ability to write English did pose a limitation. Grade 2 students at Côte St. Luc School begin to read in French before they learn to read in English. As preliminary reading and writing skills of Grade 2 students were acquired in French, I functioned as a scribe throughout the study, writing all of the words and phrases that each group suggested for their rhythmic compositions. Instruction took place in the music classroom during regular music classes.

Procedures

Approval of the research design of this study was certified by the University of Victoria Human Research Ethics Board.

Recruitment of participants was completed through the distribution of a detailed letter explaining all aspects of the study to parents of Grade 2 students. Included with the distributed letter were both parent and child consent forms that were to be returned to the school. Because I was functioning in both teacher and researcher roles I appointed a third party to distribute and take possession of completed and returned consent forms. To reduce the potential for coercion of subjects due to the power-over status of my role as teacher, the third party member kept all consent material until student grades had been submitted at the end of the term. As a result I was not privy to the knowledge of who had consented to participate in my study until after the study had been completed.[8]

The Grade 2 students who participated in this study ranged from 7 to 9 years of age. One of the two classes was comprised of a split Grade 1/Grade 2 population. All

students from both Grade 2 classes participated in an eight week composing unit. The first four weeks of the composing unit featured instruction and modeling of both the syllabic (musical) and prosodic (word) methods of composing rhythm. Instructional approaches were alternated on a weekly basis (week 1, music to word; week 2, word to music etc…). During weeks 1-3, instruction was delivered to each whole class with all children contributing towards the completion of one collective composition. The week 4 lesson began with whole class instruction (word to music) and concluded with initial work in student composing groups.[9] Week 5 began with a brief review of both strategies of composing followed by students composing in their groups using their composing strategy of choice. During weeks 6 and 7 students were assigned a specific composing strategy and instructed to begin their final compositions in their composing groups. In this manner there was a gradual progression from whole class instruction to autonomous group work. While students received whole class instruction during weeks 1-3, beginning in weeks 4 and 5 the whole class instruction served as a brief review followed by group practice. Finally, during weeks 6 and 7 composing groups spent the entire class composing in their groups. The students were interviewed in their composing groups during week 8.

During the first three lessons, I went through a standard sequence of instructional stages associated with the weekly featured composing process, actually completing a group composition with the students based upon their suggestions and feedback as the lesson progressed. In order to establish an understanding of the whole class instruction offered during weeks 1-3, a brief description of the sequential composing lessons follows.

Musical Rhythm to Word Rhythm

Students were provided with a step-by-step process of assigning musical rhythm to word rhythm. The steps that students were taught to follow resembled the stages employed by elementary students in their composing process outlined in the rationale section of this study (see Table 2). Listed below are the sequential stages through which students were taught to compose their musical rhythms.

a) Students developed rhythm pattern banks. (Children were encouraged to experiment with creating original rhythms by combining Kodaly rhythmic symbols).

b) Students began to assign text to original musical rhythms. (Together the class brainstormed words or strings of words or phrases that featured prosodic rhythms that matched the completed Kodaly rhythms. Throughout this process students were reminded that they could add new Kodaly rhythms at any time in the process so that the first stage extended into the second).

c) Students assembled their completed text-set rhythms with all musical and prosodic adjustments finalized. (The significance of this final stage was that students further explored the importance of revision within the interaction between musical and word rhythms as they made final adjustments to make the match suit their aesthetic approval).

Word Rhythm to Musical Rhythm

Students were provided with a step-by-step process of transforming word rhythm to musical rhythm. The steps that students were taught to follow resembled the stages employed by Bill and Carlos in their composing process that I described in the rationale

section of this study (see Table 1). Listed below are the sequential stages through which students were taught to compose their prosodic rhythms.

a) Students developed theme related vocabulary banks. Through group brains-storming, students were encouraged to develop a descriptive vocabulary bank associated with a specific theme (e.g., water, time, beach, picnic).

b) Students categorized vocabulary into corresponding musical rhythmic values. Together the class matched prosodic rhythm of words or strings of words or phrases with musical rhythm. (This process progressed in degree of complexity as students moved from an initial acquaintance with word rhythm to an understanding of constructing prosodic phrases and shifting prosodic values emerged.) Throughout this process students were reminded that they could add new vocabulary at any time in the process so that the first stage extended into the second.

c) Students assembled their completed text-set rhythms with all musical and prosodic adjustments finalized. (The significance of this final stage was that students explored the importance of revision within the interaction between prosodic and musical rhythms as they made final adjustments to make the match suit their aesthetic approval.)

Throughout each whole class instruction period I modeled inclusive behaviour, describing verbally to students the importance of listening to, respecting, and considering the suggestions made by all group members. All student suggestions of musical rhythm and prosodic words or phrases were written on the blackboard. Once all suggestions had been written on the blackboard I modeled a democratic process of selecting chosen

material. I explained that in the event of conflict, students should respect each other's opinions, listen to suggestions, try suggested combinations of prosodic and musical rhythm together and try their best to come to a group decision of what content they agreed worked best. It was my aim to model inclusive behaviour during the instructional process with the hope that students would emulate this behaviour when faced with creating their own group compositions during weeks 4 to 7 of the study. Together, I worked with class members to assemble the completed rhythm on the display board. Completed rhythms were performed verbally numerous times by the entire class. A description of what took place during weeks 1 to 3 follows.

Weeks 1-3: Class Descriptions

During week 1 each whole class began by creating a single collective group musical rhythm. All musical rhythmic suggestions were displayed on the pre-fabricated display board. Once the musical rhythm was completed, students decided upon a prosodic theme. With the prosodic theme identified, students began suggesting theme-related words for prosodic word banks. All suggestions were included and written on the blackboard. Finally, students began to match selected words and word phrases to the displayed musical rhythm. The completed rhythm was arrived at by group consensus and assembled on the display board for all to see. The group performed the completed rhythm together numerous times at the end of the class.

As the instructional period of the study progressed, I realized that I needed to introduce some nuances of text-setting[10] into the class instruction. I began week 2 with a demonstration of the magic of words and music. In this demonstration it was my objective to show the children how word syllables or musical values could be lengthened

or shortened to complete their rhythms. During this portion of the lesson, I devoted an equal amount of time demonstrating both directions of composing (music to word, word to music). Subsequently, students created a whole-class composition beginning with words and afterwards working towards musical rhythm. The students began by choosing a theme and suggesting various associated individual words and short phrases of words. All suggested words and phrases were written on the blackboard. Students completed their prosodic rhythm through group consensus. Once the prosodic rhythm was completed, students began to match their words with musical rhythmic values. All musical rhythmic suggestions were displayed on the pre-fabricated display board. The completed prosodic rhythm was matched with corresponding musical rhythm through group consensus.

Week 3 featured a return to composing from music towards words. Students from both classes were given a brief review of revision strategies (elongation, shortening of rhythmic values) and were encouraged to think about how their musical rhythmic creations sounded as a whole (phrasal development). Instruction during week 3 also featured the presentation of more sophisticated musical rhythmic values (sixteenth[11] notes and quarter rests). Another whole class composition was completed following the same procedure that was followed during week 1 (completion of musical rhythm through group consensus, followed by the generation of a theme and related vocabulary that was matched to the completed musical rhythm).

Prior to week 4 careful consideration was given to the formation of composing groups. I considered a number of criteria before dividing students from each class into their composing groups for the remainder of the composing unit (weeks 4-8). My first

consideration was the previous quality of involvement by students in my general music classes. While none of the students who took part in the composing unit had composed music before, the fact that I had been their music teacher provided me with an understanding of the quality of each student's previous involvement with other music related activities. I tried to combine an equal distribution of students who had demonstrated both high and low qualities of involvement in previous music related activities in each group. A second consideration was that I wanted to have both male and female students in each composing group. It was impossible to have an even number of boys and girls in every group as there was an uneven distribution of girls and boys in each class (Class 1: 11 boys, 6 girls; Class 2: 11 boys, 9 girls). I made sure that every group contained at least 1 female student. When the groups were formed there were nine in total, six containing 2 girls and 3 containing 1. With the exception of one group that had 5 students, all groups contained 4. Two groups contained Grade 1 students who were excluded from the study. Four to five member groups conforms to the ideal size for cooperative learning (Kassner, 2002). While much of the literature on cooperative learning recommends that teachers assign group roles to all members of each group, I found no literature that had evaluated methods of forming groups within the context of music composition projects. Therefore, following the example of Wiggins (1994) and reflecting upon the research by Barrett (2006) and Barrett and Gromko (2007), I decided not to assign individual roles. As one of my research questions was to observe the influence of group membership upon group composing process, I decided that my priority was to allow the opportunity for individual composing strategies to emerge naturally. A final consideration during the formation of groups was behavioural issues.

While I had a general awareness of individual student behaviour within the context of music class, I consulted the classroom teachers regarding student behaviour in other contexts. Students who were identified as having difficulty working together were placed in separate groups.

Weeks 4-7: Class Descriptions

Beginning in week 4**,** students were organized into their composing groups and seated at individual composing tables. On each table was a composing board featuring two rhythmic staves and four neatly stacked piles of quarter notes, eighth notes, and quarter rests.[12] All students were led through a brief whole-class introduction, which consisted of a brief review of the word to music composing sequence, and a review of the revision strategies (lengthening and shortening of either musical of rhythmic values) that had been taught during week 2. At the conclusion of the whole class instruction period I explained to the students that they would remain with their composing groups for the next five weeks. I told students that each group would have two weeks to practice their composing skills together (weeks 4 and 5), two weeks to complete a separate final composition (weeks 6 and 7), and that all students would be interviewed during the week after they had completed their compositions about how they completed their composition (week 8). I explained that each group's composition would be displayed at the spring concert. By informing students that their work would be publicly displayed at an upcoming performance, I hoped to provide each group with an incentive to produce the best composition they were capable of producing. I hypothesized that this incentive would motivate group members to work together to the best of their ability to complete the compositions. Completed rhythms were performed verbally numerous times by the

entire class. Subsequently students were instructed to begin composing in their words using the word to music composing sequence. I circulated about the room responding to any questions that arose. Students were encouraged to work together as a group, to listen to all suggestions, and to complete their rhythms.

During week 5 students were instructed to return to their composing groups and to sit at their composing tables. Students were led through a brief whole-class introduction that consisted of a review of both composing sequences (music to word, and word to music) as well as a further review of the revision strategies that had been taught during week 2. Subsequently students were instructed to continue the composition they had started during week 4 using word rhythm with the composing strategy of their choice (either music to word or word to music). The rationale behind offering the students a choice of composing strategies during week 5 was to allow them an opportunity to practice following their natural composing inclinations before embarking upon their final composition during weeks 6 and 7. As before, I circulated about the room responding to any questions that arose.

The rationale for the change from whole group composing to composing groups in weeks 4 and 5 was as follows: I decided that it would be beneficial for all students to participate in an initial experience of group composing before students embarked upon completion of their final rhythms which would be videotaped during weeks six and seven.

During week 6 students were instructed to return to their composing groups at their composing tables. There was no whole group instruction. Students were instructed to begin composing new rhythms using a specific composing sequence. Groups from

class 1 (Case 1) were instructed to begin composing using musical rhythm, while groups from class 2 (Case 2) were instructed to begin composing using word rhythms. The rationale for instructing the groups from the two separate classes to begin composing using separate composing sequences was to observe the influence of composing direction upon composing process. I circulated around the room to document composing strategies on videotape. I videotaped my own recording of student text-setting to allow myself an opportunity to edit the video afterwards to ensure that I had transcribed student rhythmic compositions accurately.[13]

During week 7 students were asked to return to their composing groups at their composing tables and again there was no whole group instruction. Students were instructed to complete the rhythms they had started during week 6 beginning with their assigned composing sequence (class 1 (Case 1): music to word; class 2 (Case 2): word to music). Students were provided with copies of their transcribed work completed during week 6 to ensure that all members of the group remembered what they had already created. I circulated around the room to document composing strategies on videotape. I continued to videotape my own recording of student text-setting to allow myself an opportunity to edit the video afterwards to ensure accurate transcription of student rhythmic compositions.

During the final week, all composing groups were interviewed in turn to obtain further information regarding their composing processes. The interviews took place in the visual arts classroom, directly across the hall from the music classroom. While composing groups were interviewed in turn, the remaining students were under the supervision of the regular classroom teachers, creating art work that represented the

thematic content of the completed compositions, and rehearsing completed rhythms in their groups. All completed artwork was attached to the group composition display boards that were presented to parents, friends and family at the school spring concert. All interviews were transcribed.

Pedagogical Considerations

Although I began the unit with no set meter, I observed that the fact that no meter had been established was causing difficulties and frustration for many students. As a result I decided to set the meter of class compositions as 4/4. My reasoning was twofold. First, I recognized that a key component of the generation of the sense of meter in Bill's and Carlos' rhythm was derived through movement and interaction with a dynamic real-life experience. As my students would not be given the opportunity to experiment with real-life representations of the source of their thematic material for their compositions, I reasoned that an established meter would have to be given. Second, as noted in Chapter 2, Gordon (2003) claims that meter is subjective (i.e., what one child hears as 4/4, another hears as 2/4). With these metric considerations in mind, I decided to set the meter to 4/4 and come to the aid of any child representing rhythmic ideas in 2/4. As it turned out, after setting the meter, student frustration was reduced dramatically**,** and there were no further instances of confusion regarding meter.

While I could find no research that had examined how children combine prosodic and musical rhythm, the prospect of combining these forms of intelligence is supported by the Quebec Music Education curriculum. "Inventing Music" is one of three competencies targeted for development within the Quebec Music Education curriculum (Ministère de L'Education, 2001, pp. 256-257). The fact that my research design featured

the integration of both language and music within my composing unit was also supported by the Quebec Elementary Education curriculum which targets the development of cross-curricular competencies.

Data Collection

The data for my study included journal entries, transcriptions and analysis of student compositions, videotapes of students' composing process, and transcriptions of the student interviews. The process of data collection associated with each source of data is described below.

Journal Observations and Composing Group Template Sheets

Stake (1995) identified the compilation of a detailed journal account of observable events that take place during fieldwork as an indispensable feature of case study research. According to Stake, it is through the act of recording observable events that the narrative of the case emerges (p. 62). While I taught both Grade 2 classes consecutively, I had a 40 minute preparation block immediately following the second class which provided me with an opportunity to reflect and record immediate impressions regarding composing processes. During this block I recorded my observations of class composing processes (weeks 1-3), reviewed and reflected upon each group's evolving composition as represented on the group composing template sheets (see Appendix A) (weeks 4-7) and added any further comments or observations regarding group composing process in the journal. During week 8 this block of time was spent rearranging the art classroom where the group interviews took place and compiling group art work that had been completed in the music room under each classroom teacher's supervision while the interviews took place. At the conclusion of each teaching day, all data collected on the

group composing template sheets were copied to the fieldwork journal and further notes were compiled during which time I reflected upon the overall emergence of patterns of composing behaviour and process.

During weeks 4-7, I recorded each small group's evolving composition on a composing group template sheet. As I rotated to a new composing group to observe the composing process, I updated any new developments that had transpired on the group's composing group template sheet. Each time that I updated the development of a group's composition I asked all members of the group to perform the revised rhythm to ensure that I had rendered the new material and the text-setting accurately. During my final visit to each composing group at the end of each session during weeks 4-7, I went through my recording of the composition with group members briefly to verify that I had depicted the completed composition accurately.

During weeks 6 and 7, I videotaped my recording of each group's composition to provide further documentation that I had rendered compositions as the students had intended. Thus the completed journal contained detailed notes and impressions recorded immediately after each composing session, follow-up reflections recorded at the end of the day, and analysis of transcribed group compositions themselves as they evolved during weeks 4-7.

Videotape

During weeks 6 and 7 students were videotaped while they completed their final compositions. My approach to taping the composing process was to allow the presence of observable composing processes to dictate when I would move on to the next group. By composing process I mean that group members were making observable use of a specific

strategy or combination of strategies to complete their compositions. A good example of this focus was evident in the exchange between Freddie and Simon regarding whether or not to include the word “penguins” filmed during week 7. While Simon was advocating the use of the word penguins because the prosodic rhythm of the word matched the two eighth notes that the group had included on beat 3 of their second measure of the musical rhythm, Freddie dismissed the word penguins rationalizing that penguins do not live at the North Pole. It seemed at the time of video taping that such dialogues were revealing individual composing strategies. Although I made a conscientious effort to film each group as its members completed their rhythms, when it became obvious that a particular group was at an impasse, I moved on to the next group stating that I would return later. It was this approach that allowed the emerging story of each composing group to surface according to the presence or non-presence of observable composing strategy. Throughout the videotaped composing sessions, the two classroom teachers were present and were instructed not to intervene in the student composing processes. My rationale for videotaping during only weeks 6 and 7 was that I thought that this footage would document the culmination of what each group had learned throughout the composing session.

Student Interviews

During week 8, all composing groups were interviewed in turn to obtain further information regarding their composing processes. As one of the requirements of the ethical approval of this study was that every student be interviewed, I was acutely aware that an equal representation of time be allotted to each composing group. In addition, completion of other curricular requirements prevented the possibility of extending the

composing unit more than 8 weeks. With these limitations in mind, I skipped or omitted some questions with specific groups (see Appendix B). All groups answered questions 1, 2, and 7. In a similar vein to my videotaping of composing sessions, I distributed time spent on each question in direct proportion to the extent that student responses elucidated composing process or composing behaviour. Due to time constraints, two composing groups were interviewed together rather than independently.

Data Analysis

The data collected during my study were organized and analyzed through four distinctive processes of analysis: 1) the identification of focus groups, 2) the coding of data according to relevance to the research questions, 3) the assembly of all sources of relevant data into a chronology, and 4) the interpretation of data. Below, each of the four stages of data analysis is described. Subsequently, a brief explanation is provided as to how two of the five guidelines advocated by Lincoln and Guba (1985) to establish the "trustworthiness" of the evaluation of the research data that was collected during my study.

Identification of Focus Groups

The parameters of my study dictated the data that could be included for consideration in my study. As described previously, one of the two classes who participated in the composing unit was a combined Grade 1/2 class. As the focus of my study was directed specifically at the manner through which Grade 2 students made use of prosodic and musical strategies in their compositions, all data of Grade 1 students were eliminated from my study and destroyed. Similarly, all data generated by Grade 2

students who had not granted permission to participate in my study were eliminated and destroyed.

Because the focus of my study was to examine group composing processes it was necessary to exclude all data derived from composing groups containing members whose parents had not given consent for their children to participate. The consequences of the above parameters were that some of the data collected during the whole class instruction period was eliminated by virtue of the fact that some children whose parents had not granted permission participated in these composing sessions, and only the data collected from the case groups that were made up entirely of students whose parents had given permission to participate in my study were included. The result of the above factors was that two groups consisting of four students each had permission to participate in my study. Thus, data from only eight students were analyzed for the purposes of this study.

Data Coded By Research Questions

Once the two Case groups that had permission to participate in the study had been identified, I conducted multiple reviews of all sources of all data generated by these eight students. As explained before, the completed compositions of each group were recorded on group composing template sheets and subsequently copied into the journal at the conclusion of each teaching day. During my review of completed compositions there were specific composition criteria that guided my analysis. As reflected in Figure 2, considerations of both prosodic and musical rhythmic development guided the composition analysis (see Figure 2).

Composition Analysis Criteria	
Prosodic Rhythm	Musical Rhythm
1) Adherence to theme. (Semantics - does it make sense?) 2) Was the prosodic content composed in phrases or in bits and pieces using one to one correspondence? 3) To what extent does the prosodic content match the musical rhythm? 4) Did prosodic considerations seem to be driving the revision process? Was musical rhythm changed to preserve prosodic content? Was this pattern consistent? 5) Length of prosodic rhythm? Prolific? 6) To what extent was the meter represented in the completed prosodic rhythm? 7) To what extent was the prosodic rhythm represented in group performance of the completed rhythm?	1) Observable use of motivic transformation (repetition, inversions etc.) 2) Was the musical content composed in phrases or in bits and pieces using one to one correspondence? 3) To what extent does the musical content match the prosodic rhythm? 4) Did musical considerations seem to be driving the revision process? Was prosodic rhythm changed to preserve musical content? Was this pattern consistent? 5) Length of musical rhythm? Prolific? 6) To what extent was the meter represented in the completed musical rhythm? 7) To what extent was the musical rhythm represented in group performance of the completed rhythm?

Figure 2: Composition analysis chart

During the multiple reviews of the data I coded all data according to their relevance to the three research questions which were presented in Chapter 1:

1) How do children make use of prosodic and musical rhythm in their rhythmic compositions?

2) Within the composing process does one system of composing (prosodic or musical) dominate, or do children integrate these two systems in their composing processes?

3) How does group membership influence the interaction between the two composing processes?

Each section of data that pertained to one or more of the three research questions was highlighted and assigned the number 1, 2 or 3 to indicate which research question or questions the highlighted data segment corresponded to. It was through the process of multiple reviewing and coding of data according to the three research questions, that observations regarding group composing process and composing trends began to emerge. The numeric coding of the data allowed me to isolate pertinent data and disregard data that did not pertain to the research questions of the inquiry (see Figure 3). The above process of coding is recognized and supported by Yin (1994). Yin maintains that a researcher's choice of research questions reflects a "theoretical proposition" that leads to the conception of the case study (p. 103). Yin suggests that such "theoretical propositions" guide the "data collection plan" and give "priorities to the relevant analytic strategies" and that "the proposition helps to focus attention on certain data and to ignore other data" (p. 104). For example, one of my assumptions that I stated in Chapter One was that that familiarity with prosodic rhythm may inform musical rhythmic learning and

vice - versa. These “theoretical propositions” informed the development of my three research questions. In this sense the coding of all data according to pertinence to the research questions helped to focus the inquiry.

Relevant Data Assembled in Chronology

Once all data had been coded according to their pertinence to the three research questions, they were re-examined multiple times and reassembled in chronological order of occurrence in a separate coding themes book. In this manner, the coded data from the

Groups:	**DS**	**Q1**	**Q2**	**Q3**	**Emergent Trends**	**Group Process**
Week 1: Whole Class	J	●	●			Rhythms were modified to accommodate chosen words. Prosodic strategy was dominant.
	C	●	●			
	V					
	I					
Week 2: Whole Class	J	●	●		DR- Emergence of dialectical relationship between phrase development and meter respective of composing strategy employed. OT- Novelty of new skill - lengthening and shortening of prosodic rhythm may have influenced composing.	Class 1: Produced prolific prosodic content-had difficulty representing meter (DR). Class 2: Created fully-formed phrases that strongly represented meter.
	C	●	●			
	V					
	I					
Week 3: Whole Class	J	●	●		DR- Dialectical relationship persists. OT- Some students confuse syllables with phonemes.	Predominant composing behaviour was to shout out new vocabulary. Prosodic considerations seemed to outweigh musical rhythmic considerations.
	C	●	●			
	V					
	I					
Week 4: Case 1	J	●	●	●	LR- Leadership roles impact group process. Power shifts from Freddie to Warren. DR- Dialectical relationship (Freddie's approach vs. Warren's).	Freddie begins using prosodic-dominated approach. Warren points out mismatches between word and musical rhythm and moves into a leadership role.
	C	●	●	●		
	V					
	I					

Week 4: Case 2	J	●	●	●	DR- Difficulties matching words with music. LR – Steven appears to lead.	Ambiguous.
	C	●	●	●		
	V					
	I					
Week 5: Case 1	J	●	●	●	LR- Warren's integrative approach prevails over Freddie's prosodic approach. DR- Better representation of meter. OT- Questions surrounding competitiveness arise.	Primarily integrative - a reflection of Warren's leadership.
	C	●	●	●		
	V					
	I					
Week 5: Case 2	J	●	●	●	LR- Conflict between Steven and Mary-Ann. DR- Mismatch of prosodic and musical rhythm. OT- Questions surrounding competitiveness arise.	Ambiguous. In spite of the conflict re: mismatch, it is still not clear who is advocating which approach.
	C	●	●	●		
	V					
	I					
Week 6: Case 1	J	●	●	●	MRP- Musical rhythm not in performance. LR- Freddie regains control. DR- struggles with representation of meter. OT- Video reveals possibility of trends missed during weeks 4 and 5 (Simon and Alice).	Primarily prosodic-dominated. Freddie's descriptive prosodic approach returns. Struggles with meter ensue. Simon and Alice more involved than I had thought (video).
	C	●	●	●		
	V	●	●	●		
	I					
Week 6: Case 2	J	●	●	●	MRP- Musical rhythm represented. LR- Mary-Ann emerges as leader. DR- strong metric representation.	Mary-Ann emerged as the leader of the composing process using music-dominated strategies.
	C	●	●	●		
	V	●	●	●		
	I					
Week 7: Case 1	J	●	●	●	LR-Warren regains control with Simon and Alice. MRP- No musical rhythm in performance. DR- (Freddie vs. group). OT- Enthusiasm for prosodic choices may have contributed to MRP (Simon & Freddie).	It appeared that Warren, Simon, and Alice had collaborated through an integrative approach to hold Freddie's creations in check. Even Freddie begins to adopt the group integrative process of composing.
	C	●	●	●		
	V	●	●	●		
	I					
Week 7: Case 2	J	●	●	●	LR- Gender issues re: division of composing. MRP- mismatches. DR Strong meter in notated	Division of composing prosodic content along gender lines diffuses conflict. Mary-Ann
	C	●	●	●		

	V	●	●	●	rhythm.	continues to lead process using musical strategies.
	I					
Week 8: Case 1	J				AFCP- Ambiguity - although documented group process was integrated, all of the students in Case I stated during the interview that their future preference would be to compose using words.	Although Warren, Simon and Alice consistently demonstrated integrated composing behaviour, all group members said that if given another opportunity they would compose using prosodic rhythm.
	C					
	V					
	I	●	●	●		
Week 8: Case II	J				AFCP- Ambiguity - primary group process music - dominated yet 2 out of 4 state future choice of strategy would be word rhythm.	In spite of the fact that Steven and Julie appeared to allow Mary-Ann's musical strategies to shape the creation of the group rhythm, they said that they would begin using words in future.
	C					
	V					
	I	●	●	●		

Figure 3: Coding chart of data and emergence of trends and group processes. J-Journal, C-Composition, V-Video, I-Interviews, DR-Dialectical Relationship, LR-Leadership Roles, MRP- Modes of Rhythmic Perception, ACFP- Ambiguity of Future Composing Preference, DS-Data Source, Q-Question, OT-Other Themes.

whole class instruction period and from each of the respective Case groups were assembled in independent chronologies of occurrence. It was through multiple reviews of the independent chronologically assembled data that the group composing processes and dominant composing trends emerged in more detail within distinctive timelines. Each of the emergent composing trends was coded through the use of abbreviations of each trend as it emerged from the coded data.

Through the assembly of the coded data derived from all sources of data into independent chronologies, overall group composing processes and dominant trends of composing behaviour were triangulated over a continuum of time. The process of

triangulating data through the examination of multiple sources of data is termed "methodological triangulation" by Denzin (1978). A detailed description of methodological triangulation follows below.

Interpretation of Data

While interpretive theories were developed at every stage of analysis, the final stage of data analysis considered the significance of the emergent themes within the context of research that was reviewed in Chapter 2. It was through this process that my findings and their implications were put into perspective within the context of relevant research. More detail regarding the interpretive stage of analysis is provided in Chapter 5 and Chapter 6.

Evaluation of Trustworthiness

Throughout my study two of the five guidelines advocated by Lincoln and Guba (1989) to preserve the trustworthiness of data were observed. As discussed above the five guidelines were: 1) prolonged engagement, 2) persistent observation, 3) triangulation, 4) peer review, and 5) negative case analysis. Below, a brief explanation is provided regarding how persistent observation and triangulation were applied in my study.

Persistent Observation

At each stage of the composing unit, all observations were recorded in a research journal. All analysis in my study stemmed initially from the comprehensive weekly journal entries of observations of composing behaviour. Virtually all first hand descriptions of the composing process in this thesis were derived directly from the weekly observations and reflections recorded in the journal.

During weeks 6 and 7, my journal observations were supplemented by videotape recordings of group composing process. The data obtained from the videotaped composing sessions were transcribed and used to provide an objective source of composing behaviour, including specific dialogue that occurred between group members or between group members and myself. Large portions of the videotapes were reviewed multiple times to verify the accuracy of my transcription of student rhythmic compositions. Segments of the videotapes were also reviewed to verify the differences between student perception of rhythm as they composed and assembled their rhythms juxtaposed against student perceptions of rhythm in their performance of completed rhythms.

Triangulation

The data collected during my study were analyzed through "across-method triangulation," a form of "methodological triangulation" identified by Denzin (1978, p. 308). Through this method of triangulation, "dissimilar methods" are used "to measure the same unit" (p. 308). According to Denzin, the use of "across-method triangulation" allows the researcher to make use of the strengths inherent within a variety of sources of data to compensate for any weaknesses existing within each individual source. Denzin suggests that in order to reduce the "potential bias" that is inherent within "every data-gathering class," it is desirable to "converge data from several different data classes" (p. 307). He elaborates: "The rationale for this strategy is that the flaws of one method are often the strengths of another, and by combining methods, observers can achieve the best of each, while overcoming their unique deficiencies" (p. 308). As a result, the distinctive

feature of methodological triangulation is the “combination” of “two or more research strategies” in the examination of a particular phenomenon (p. 308).

The four sources of data were journal observations, compositions, video footage, and student interviews. In much the same manner that Denzin described, the four sources of data provided detail that would not have been revealed through one or two classes of data alone. It was through “across-method triangulation” of chronologically assembled pertinent data that composing processes, composer profiles, and dominant emergent composing trends were revealed in my study.

Summary

Chapter 3 has provided a description of the manner through which my study was conducted. Subsequent to a description of my rationale for the selection of a qualitative collective instrumental case study for the purposes of conducting my study, Chapter 3 described the setting, pedagogical considerations, teacher roles and the manner through which all data were collected and analyzed. Finally, Chapter 3 addressed how the trustworthiness of the research data were established through the implementation of guidelines recommended by Lincoln and Guba (1989). The presentation of emergent patterns of composing processes, and composer profiles, and dominant trends of composing behaviour are the focus of Chapter 4.

CHAPTER FOUR

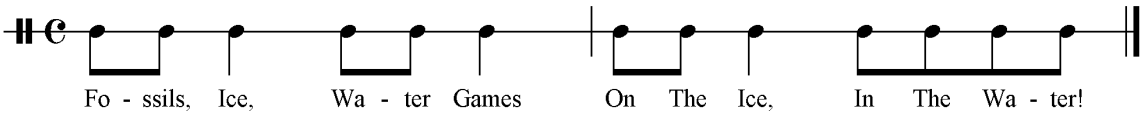
Composing Processes, Composer Profiles and Dominant Trends

Conforming to the "story quality" of case study writing, Chapter 4 describes in narrative form my observations and reflections upon the whole class composing lessons taught during weeks 1-3 and the composing processes and composer profiles as they emerged in the two Case groups during weeks 4 through 7. All data documented within both Case groups are presented chronologically to identify the specific evolution of composing behaviour. Composing behaviour of weeks 4 and 5 are shared through the presentation of several excerpts from the fieldwork journal, supplemented by detailed analysis of completed group compositions. Composing behaviour of weeks 6 and 7 are chronicled through the presentation of journal excerpts, compositional analysis, and are triangulated through the presentation of excerpts from video footage notes respectively. Finally, overall composing processes and composer profiles from weeks 4 to 7 are further triangulated by the presentation of excerpts from student interviews.

Weeks 1-3: Setting out on a Composing Journey

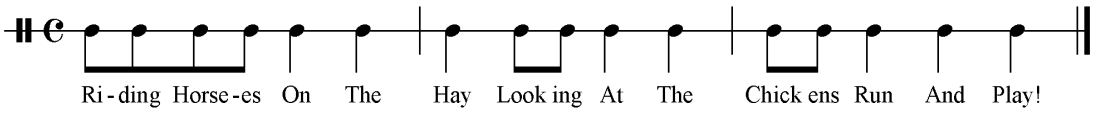
During the first three weeks of the study, both classes were given whole group instruction intended to model a sequential approach to composing rhythms using both prosodic (word) and syllabic (musical) strategies. During week 1, each whole class began by creating a single collective group musical rhythm. Once the musical rhythm was completed, students decided upon a prosodic theme. With the prosodic theme identified, students began suggesting theme-related words for prosodic word banks. All suggestions were included and written on the blackboard.

In both classes, thematic context took over and a revision of rhythms took place in order to accommodate the words the students wanted to include (see Figures 4 and 5). Words were subsequently added to allow the rhythm to make sense in terms of linguistic meaning. “During this first experience, in spite of the fact that each class began by



Word Bank: Sand, Ice, Games, Fossils, Egypt, Giraffe, Water

Figure 4: Week 1: Class 1 completed rhythm



Theme: Farm

Word Bank: Farmer, Horses, Cows, Pigs, Goats, Chickens, Dead, Grass, Barn, Geese, Sheep, Ducks, Touch, Plough

Word Phrases: Feed The Chickens, Milk A Cow, Drive The tractor, Look At The Pigs

Figure 5: Week 1: Class 2 completed rhythm

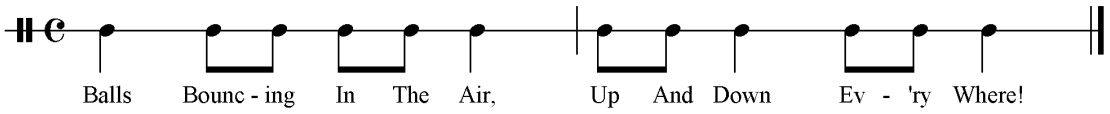
composing a musical rhythm, prosodic rhythm is driving the shift towards completed phrases” (Journal Entry Week 1). In this sense, the composing process of the first week was dominated by prosodic rhythmic composing and supported by musical rhythm.

I realized at the conclusion of week 1 that I needed to encourage students to add connector words (articles) and action words (verbs) to their prosodic word banks in the weeks to come. While some students seemed to produce completed prosodic rhythms that made sense to them, others produced their word banks in a shopping list format, shouting out words associated with the theme without much thought as to how they would fit together to form prosodic phrases. It seemed that some students needed to be taught how to combine thematic vocabulary with articles and verbs to develop prosodic phrases.

I began week 2 with a demonstration of the magic of words and music. In this demonstration it was my objective to show the children how word syllables or musical values could be lengthened or shortened to complete their rhythms. During this portion of the lesson, I devoted an equal amount of time demonstrating both directions of composing (music to word, word to music).

During week 2, students began composing using prosodic rhythms. The students in class 1 (the Grade 1/2 classroom) matched their prosodic creations with musical rhythms, but experienced some difficulty fitting their completed constructions into the meter (4/4). By contrast the students in class 2 began composing their prosodic rhythms with fully-formed phrases. It was apparent that some members of class 2 were very adept at creating prosodic rhythms. Week 2 journal entries describe one boy who immediately suggested the phrase, “balls bouncing in the air.” Other members of the class complemented this phrase with, “up and down everywhere.” There were students in class 2 who were quick to match the fully-formed prosodic phrases with corresponding musical rhythms. This approach differed from that demonstrated by students in class 1 who tended to approach their prosodic rhythm by building their word bank one word at a time

and subsequently attempting to combine their chosen words into phrases. Class 2's fully-formed prosodic phrases reinforced the meter from the outset (see Figure 6).



Theme: Gym

Word bank: Flying, Rings, Balls, Mr. Molo, People, Soccer, Hulla-Hoops, Nets, Matts, Hockey

Action words: Splits, Somersault, Cartwheel, Jumping-Jacks, Round-Off, Kick, Saves, Back-Flip, Hand-Stands

Figure 6: Week 2: Class 2 completed rhythm

After observing the students through two weeks of composing sessions, I noticed an emerging trend. In general, when students began by composing the music first, and then adding prosodic rhythms afterwards, they experienced few difficulties matching rhythms to the given meter (see Figure 4). Conversely, when students began by composing the words first, subsequently attempting to attach musical rhythms to their creations, some students experienced difficulty accommodating their rhythms to the meter (see Figure 5). The above distinction regarding representation of rhythm was noted in the Week 2 journal entry:

> It is interesting to note that this attention to meter is another distinctive difference between the two (processes). When composing music first, and then adding text, there were no difficulties encountered creating rhythms that perfectly fit with the meter. When composing with words (perhaps complicated by the fact

that we discussed how words can be elongated or shortened) word rhythms didn't always fit neatly within the measure.

It seemed as though there were distinctive differences in students' abilities to represent phrase development, musical rhythm, and meter in their completed compositions. Specifically it appeared that such distinctive differences were directly associated with respective choices of composing strategy. There appeared to be a dialectical relationship emerging between compositions featuring strong phrase development and weak representation of musical rhythm and meter observed in students using prosodic composing strategies, and compositions featuring strong representations of musical rhythm and meter and correspondingly weaker representations of prosodic phrase development completed by students using musical strategies. It seemed that the demonstration of revision strategies during the whole class instruction of weeks 2 and 3 may have influenced composing behaviour to a greater extent than I had originally suspected. It seemed that students may have been preoccupied with practising their newly acquired revision strategies to the detriment of considerations of phrase development or meter.

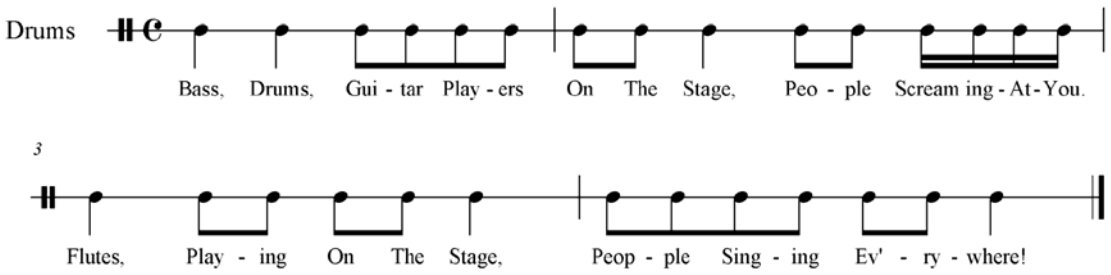
A further trend seemed to be that students who created their prosodic rhythms as fully-formed phrases had less difficulty representing meter in their compositions than those who approached their composing one word at a time (see Figure 6, p. 80). I also observed that students seemed to produce more interesting rhythms expressed in clear phrases when composing with words than they did when composing with musical rhythm. These trends were described in the observation journal:

> Although meter was not a problem when composing with rhythm symbols (Kodaly) first, it must be said that the rhythms created by words were more sophisticated right from the start. The word rhythms emerged in fully-formed phrases. Significantly, the first group (containing Grade 1 students as well) modified the already existing prosodic rhythm. (Here again maybe they were more compelled to practise the newly acquired skill of elongating and shortening prosodic setting). In contrast, the second group (all Grade 2 students) kept the original prosodic setting intact with only a couple of students wanting to make changes. (Maybe they too wanted to practise the revising we had covered together prior to the composing session.) (Journal Entry Week 2)

It is possible that the fact that one class was a combined Grades 1 and 2 while the other was composed of only Grade 2 students may have influenced the presentation of revision strategies. The presence of Grade 1 students in one class may have contributed to the absence of the contribution of fully-formed prosodic phrases during the presentation of revision strategies.

Week 3 featured a return to composing from musical rhythm towards words. Students from both classes were given a brief review of revising strategies (elongation, shortening of rhythmic values) and were encouraged to think about how their musical rhythmic creations sounded as a whole (phrasal development). Instruction of week 3 also featured presentation of the inclusion of more sophisticated musical rhythmic values (sixteenth notes and quarter rests). While I thought that the inclusion of sixteenth notes into the composing process would pose difficulties for the students, journal entries

indicated that both groups found creative ways of assimilating this new rhythmic value in their work (“screaming at you” and “in the jungle”) (see Figure 7).



Theme: A Concert

Word Bank: Drums, Bass, Flute, Guitars, Singing, Trumpet, People, Drum-Set, Tuba, Dancing, Screaming

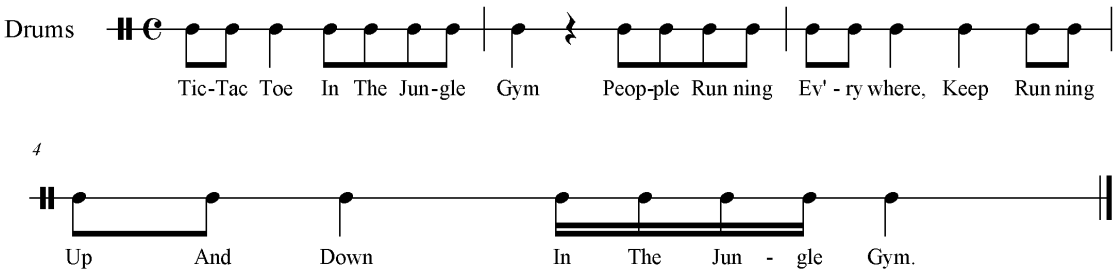
Phrases: Watching on the Stage, Playing drums

Figure 7: Week 3: Class 1 completed rhythm

During week 3 it became evident that students appeared to be preoccupied with the creation of prosodic rhythms to the detriment of the consideration of musical rhythm. During weeks 1-3, regardless of which mode of composing was used as the starting point, prosodic composing seemed to dominate composing behaviour. This trend was described in the fieldwork journal.

> Significantly, the prosodic content is still the dominating force. In spite of modeling strategies of matching text-setting to already existing rhythms, the most pervasive behaviour is that of children yelling out the combination of words they want, and trying to fit the music to the words. (Journal Entry Week 3)

The dialectical relationship between representation of prosodic phrase development and musical rhythm and meter observed in week 2 continued to be prevalent in observable composing processes of week 3 (see Figure 8) and was reflected in



Theme: Playground

Word Bank: Slides, Swings, Sand, People, See-Saws, Picnic, Frisbee, Jungle-Gym, Skipping, Running, Jogging, Jumping

Figure 8: Week 3: Class 2 completed rhythm

comments recorded in the fieldwork journal.

> The relationship between meter and phrase development was still prevalent. When composing musically, metric consistency is strong, but phrase development with the text becomes difficult. (Students were text-setting in nuts and bolts; the music and words are not being fused with the same sense of complete phrases as they are when the children compose from word to music). (Journal Entry Week 3)

During the assembly process of the week 3 class rhythm, it became apparent that some students were confusing phonemes and syllables in their approach to the prosodic rhythm. This confusion was noted:

> It was interesting to note that some students have difficulty categorizing words

> according to syllabic sounds. While most are capable of sounding the words out, clapping the words and determining syllabic value, some students were clearly confusing syllables and phonemes (i.e., hearing pluralized single-syllable words like “flutes” or “balls” as two separate sounds. Clearly these students were counting the “s” of each word as a separate syllable. (Journal Entry, Week 3)

As a result of this phenomenon these students were creating mismatches between their chosen words and the rhythmic values that they chose to represent them.

There appeared to be a dialectical relationship emerging in students’ composing processes during weeks 1-3. As noted in Figure 9, students using primarily prosodic composing strategies seemed to produce compositions that featured fully-formed prosodic phrases, which did not match musical rhythms or reflect musical meter well. In contrast, students using musical strategies to compose appeared to generate compositions that were less descriptive in terms of prosodic content, featuring strong representation of both musical rhythm and musical meter. Further, students using musical strategies appeared to compose in bits and pieces using one to one correspondence between musical rhythm and the syllabic sounds of chosen words, with little consideration of prosodic phrase development.

Emerging Dialectical Relationship in Class Composing Process

PHRASE DEVELOPMENT (Strong in prosodic composing, Weaker in musical composing)	VS.	CONCEPT OF METER (Strong in musical composing, Weaker in prosodic composing)

Figure 9: *Emerging dialectical relationship in class composing process*

During week 4 students were organized into their composing groups. As it happened the two case groups were from different classes. What follows is a description of the composing processes and profiles that emerged within two composing groups during weeks 4 through 7 of the study.

Case 1 - Freddie, Warren, Alice, and Simon

Case 1 was comprised of two extroverted and two introverted students. Freddie and Simon were both assertively verbal boys who tended to impulsively shout out their ideas to the group as they progressed through their composing process. Both Freddie and Simon were aggressive in the sense that they campaigned vigorously for group acceptance of their ideas even when flaws inherent within their suggestions were identified by other group members. In contrast, Warren and Alice tended to listen quietly to developments and subsequently make suggestions on the development of group process.

Journal Observation Week 4

From the outset, it became apparent that Freddie and Warren had differing ideas about how their rhythm should proceed. During week 4, Warren turned to me stating, “Freddie doesn’t get it” (Journal Excerpt Week 4). A closer examination of week 4 journal observations revealed the emergence of two strikingly different composing strategies being employed by both Warren and Freddie.

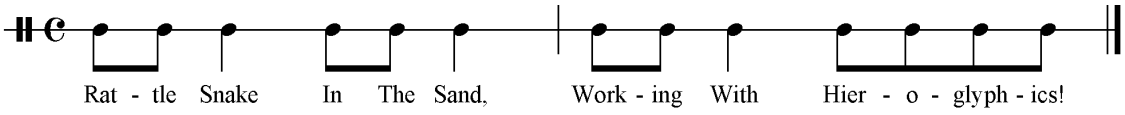
> When I asked Freddie to share his idea with me, it became clear that he was motivated by the thematic context. He was attached to his original phrase (‘Hieroglyphics Written On The Wall Of The Temple Everywhere’). While it is clear that Freddie was dominating the thematic and vocabulary development,

> Warren was getting frustrated, as he understood very clearly that the rhythm of the words had to be represented within the meter ("It's too many words; it won't fit"). As a compromise, the group followed Warren's lead and began to play with musical rhythmic symbols to experiment with how the phrase could be altered to fit the meter. (Important thing to note here is that Warren had a course-altering effect on the group by reasoning from music towards words). Subsequently, there was an ebb and flow between Warren (musical reasoning) and Freddie (modifying words) to come to the compromise. My sense was that neither student (Warren nor Freddie) was satisfied with the result. (Journal Excerpt, Week 4)

Thus, it seemed that through Warren's intervention, the group moved away from Freddie's imaginative and clear description of the interior scene of an Egyptian temple and began to interact directly with the sounds made by the words.

Composition Analysis Week 4

An examination of the week 4 composition revealed that in order to complete the transformation from Freddie's long flowing prosodic phrase ("Hieroglyphics Written On The Wall Of The Temple Everywhere") to the more integrated completed rhythm, the group borrowed a phrase from their phrase bank, "Rattle Snakes In The Sand," and added new words, "Working With" to provide a connection with the main thematic idea of Freddie's original creation, "Hieroglyphics" (see Figure 10). While the group's efforts under Warren's leadership led to a stronger fusion between musical and prosodic rhythm, it was clear that the essence of Freddie's description that was expressed in a fully-formed



Theme:	Egypt
Word Bank:	Temples, Rattle Snakes, Sand, Pyramids, Sphinx, Palm Trees, Mummies, Coffins, Hieroglyphics, Mirages
Prosodic Phrases:	Rattle Snakes In The Sand, Hieroglyphics Written On The Wall Of The Temple Everywhere

Figure 10: Case I: Week 4 completed rhythm

lengthy prosodic phrase was thereby eliminated. The revised group rhythm which was strongly representative of meter did not contain the same degree of imaginative clarity and intrinsic meaning as Freddie's original prosodic phrase. Further, students using musical strategies appeared to compose in bits and pieces using one-to-one correspondence between word rhythm and musical rhythm rather than in phrases (see Figure 10).

An examination of the text setting in Figure 10 illustrates the fact that under Warren's leadership the group focused its attention more specifically on the one-to- one sound relationship between the prosodic rhythm represented in each of the words and their representation in musical rhythm. This composing behaviour indicated that when the group followed the integrative model of composing advocated by Warren (close correspondence of musical and prosodic rhythm), consideration of prosodic phrase

development suffered. Prosodic ideas were segmented and dissected to render stronger representation of chosen musical rhythm and meter. The above observations suggested the emergence of the first dominant composing trend: a dialectical relationship between prosodic phrase development and representation of meter depending on the use of composing strategy (prosodic or integrative respectively).

Week 4 journal observations and composition analysis suggested a second dominant composing trend: leadership roles were influencing group composing behaviour. Both Freddie and Warren demonstrated leadership skills in the promotion of their respective composing strategies of choice (prosodic and integrative). Freddie advocated the development of long flowing fully-formed descriptive prosodic phrases that featured little correspondence to the musical rhythm or meter. Contrarily Warren promoted the close integration between the sound of the musical rhythm and the sound of the word rhythm. The shift in leadership from Freddie's prosodic approach towards a gradual adoption of Warren's integrative composing process, was represented in the chronological development of the completed composition. Emerging directly from this shift between the two dominant composing strategies was the presence of the dialectical relationship described above. While Freddie's leadership promoted a fully-formed, self-contained coherent prosodic phrase that did not represent the given meter, Warren's leadership motivated the group to think in smaller sections of rhythm, focusing more specifically on the one-to-one sound relationship between word rhythm and musical rhythm to the detriment of the development of the prosodic phrase.

Journal Observation Week 5

Journal observations of week 5 revealed that the group was slowly beginning to

integrate the two composing strategies demonstrated by both Freddie and Warren during week 4.

> Once again, Warren seemed to be leading the revision from the musical side. As Freddie developed vocabulary further, Warren helped to mesh it with musical rhythmic values. This group seemed to be working from both directions (musical and prosodic). However, once they had chosen a prosodic phrase that they agreed upon, they let the prosodic phrase dominate. As a group, they decided not to include the word "Desert" at the end of measure 4, using a quarter rest instead. Warren was indispensable to the group again, keeping the wealth of prosodic ideas suggested by Alice, Simon, and Freddie in check, matching words with musical values. (Journal Excerpt Week 5)

The group made good use of the word bank they had created during week 4. The fact that not many new words were used further suggested that Warren's understanding and manipulation of musical rhythm had influenced the direction of the composing process. It also indicated that the group was benefiting from the rich prosodic content that Freddie had generated during week 4. The group was becoming more integrated in their composing approach (see Figure 11).

During week 5, I became aware of the possibility that some groups taking part in the composing unit were competitively comparing the length of their completed compositions. This phenomenon was described in the observation journal. "A not so desirable phenomenon emerged today: a sense of competition amongst groups to see who could compose the most measures in the given time (Journal Entry Week 5). In response to the discovery of this behaviour, I noted in my journal that I "tried to dispel this by

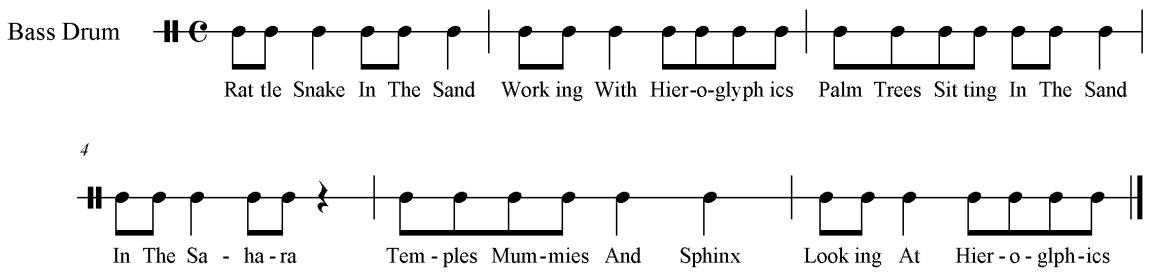


Figure 11: Case I: Week 5 completed rhythm

emphasizing quality rather than quantity" (Journal Entry Week 5). I explained to the class as a whole that I was much more interested in the content of their compositions than their length.

Composition Analysis Week 5

A review of the week 5 composition confirmed evidence of the influence of Warren's integrative composing strategy. Conspicuously absent from the week 5 composition were the long flowing descriptive prosodic phrases lacking representation of meter that were characteristic of Freddie's original prosodic phrases created during week 4. On the contrary, all words and phrases matched precisely with the musical rhythmic values.

It is interesting to consider the group decision to replace the word "Desert," which was originally included on beat 4 of measure 4, with a quarter rest. The insertion of this rest suggested the consideration of musical strategies to complete the rhythm. This insertion provided a clear break between the second prosodic phrase, "Palm Trees Sitting In The Sand" and the concluding prosodic phrase, "Temples, Mummies, And Sphinx

Looking At Hieroglyphics" (see Figure 11). Musically, the rest provided relief from the accelerating momentum and prepared the ear for the concluding musical phrase.

A close examination of the musical rhythm revealed the use of motivic transformation as a means of developing musical rhythm (see Figure 11). Measure 1 was repeated but transformed by the addition of a quarter rest on beat 4 of measure 4. Measure 2 was a transformation of measure 1, eighth notes being added to replace the quarter note on beat 4. Measure 3 was created by reversing the order of measure 2 (beat 3 and 4 content first, beat 1 and 2 content second). Measure 5 was a transformation of measure 3, a quarter note being substituted for the eighth note on beat 2. Measure 6 was a repetition of measure 2. The use of motivic transformation as a means of composing musical rhythms provided further evidence of the use of musical strategies.

Journal observations and compositional analysis revealed that members of Case I made use of both prosodic and musical strategies in their composition during week 5. It seemed that the integrative approach advocated strongly by Warren during week 4 was dominating the group composing process. The influence of the leadership roles and the presence of a dialectical relationship between prosodic phrase development and representation of meter, which had been identified during week 4, continued to persist during week 5.

Journal Observation Week 6

Journal observations of week 6 suggested that Freddie had reasserted his influence upon the composing process.

> It seemed as though Freddie was in the lead this week. As has been the case during previous weeks, Freddie lost no time in generating word vocabulary. It

> became clear by the manner through which the group, under Freddie's direction, recited the (prosodic) rhythm that emphasis has been focused upon the generation of interesting vocabulary without thought of the musical rhythm or how the prosodic rhythm fit with the musical rhythm. Ironically, the rhythm (prosodic) could be spoken to the musical rhythm that it is set, but the group did not reflect the musical rhythm in their performance. (Thematic content is dominating rhythmic considerations). I kept expecting Warren to intervene as he had in past weeks to focus the group's attention on the fact that the music and the words did not mesh. He stated that he was content. (Journal Excerpt Week 6)

The above entry provided further evidence of both Freddie's leadership skills and his exclusively prosodic dominated approach to composing. Freddie's prosodic focus deviated markedly from the integrative approach that had been adopted by the group during week 5. This deviation provided further documentation of the emergence of a dialectical relationship between prosodic phrasal development and representation of meter identified during Week 4.

A third dominant composing trend began to emerge from the review of the week 6 journal observations. It became apparent that in spite of the fact that the group appeared to be making use of integrative strategies generating rhythm, they did not represent their chosen musical rhythm during the performance of the rhythm, suggesting that perhaps two separate modes of rhythmic perception were taking place: one during assembly of the rhythm and one during performance of completed rhythms.

Composition Analysis Week 6

A review of the week 6 composition reflected the change of leadership. Suddenly

the prosodic phrase was strongly descriptive, fully-formed, and held together as a complete cohesive thought (see Figure 12). The latter were characteristics of Freddie's prosodic creations during week 4. Missing from the week 6 composition was the strong representation of meter that was present during the week 5 composition. The musical rhythm was awkward and the setting of the words "Of Snow" to eighth notes on beat 3 of

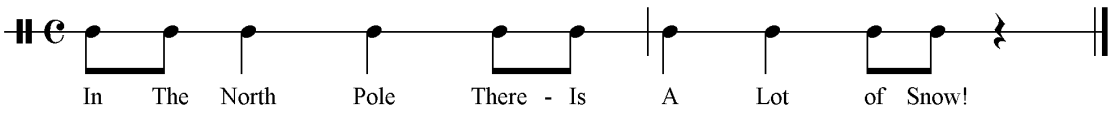


Figure 12: Case I: Week 6 completed rhythm

measure 2 was abrupt. It seemed as though the preservation of the fully formed prosodic phrase dictated musical rhythmic setting to the detriment of considerations of meter. Week 6 video footage revealed that the insertion of the quarter rest at the end of the second measure was Freddie's idea (meant to terminate musical composing and shift the group's attention towards prosodic reasoning).

In spite of the fact that review of the week 6 composition suggested that prosodic considerations dominated musical rhythmic considerations, a closer look at the musical rhythmic content suggested the use of motivic transformation to generate new musical rhythms (see Figure 12). Measure 2 was an imitation of measure 1. The eighth notes on beat 1 of measure 1 were eliminated and content that appeared on beats 2, 3, and 4 of measure 1 were shifted over and placed on beats 1, 2, and 3 in measure 2. This shifting adjustment was completed by adding a quarter rest on beat 4 of measure 2. The

observable presence of motivic transformation as a musical composing strategy suggested that while prosodic considerations dominated the composing process during week 6, musical strategies were being employed to complete the musical rhythm.

Video Footage Week 6

Video footage of week 6 revealed that both Simon and Alice were more involved in the composing process than I had initially thought. Video footage documented the fact that Simon and Alice actually began the week 6 rhythm by experimenting with musical rhythms, and subsequently searched for word rhythms that matched their creations. Journal notes taken during review of video footage reflected this observation:

> In the video footage, both Simon and Alice are more involved than I suspected. Simon is first to use his musical rhythm-reading skills to get the process moving. As the group experiments with assembling, Simon takes the lead in singing (using Kodaly rhythmic symbols) and performing the (musical) rhythms. Alice, following Simon's lead, uses the musical rhythm to guide the text setting, pointing to the rhythmic values, making sure that the prosodic rhythm matches as they move along. Simon continues to be proactive, suggesting word alternatives as they emerge within the group. Interestingly, Simon seems quite proud of the fact that (in his mind) it rhymes (it doesn't). Simon continues to make adjustments to both words and musical content ("No, not Snow; Ice". Afterwards Simon adds, "A Lot of Penguins"). Simon knows that the eighth notes (on beat 3, measure 2) should be matched with a two syllable word. (Video Notes Week 6)

Week 6 video footage depicted Freddie as being marginally involved in the integrative process exhibited by Simon and Alice, intervening only in an attempt to shift group attention towards considering word phrases exclusively.

> Towards the end of this initial rhythm assembly (by Simon and Alice), Freddie attempts to get involved, substituting a quarter rest for the last pair of eighth notes that Simon has included. Even more interesting, it is Freddie, who was marginally involved until the end of the rhythm assembly who says, "This is done; now we have to do the words." (Video Notes Week 6)

Freddie's comments suggested that not only was he disinterested in pursuing the integrative approach demonstrated by Simon and Alice, but also that he was dissatisfied with the prosodic settings that they had created.

Week 6 video footage confirmed Freddie's predominant prosodic focus and his use of leadership skills to shift the group's focus towards prosodic reasoning and provided missing detail with regards to the group's composing process. Suddenly, it became apparent that both Simon and Alice shared the integrative approach that had been demonstrated by Warren during weeks 4 and 5. As a result, a very different group composing profile was emerging pitting Freddie, a predominantly prosodic composer, against the collaborative integrative composing processes exhibited by Warren, Simon, and Alice.

The video footage of week 6 revealed that I was not getting the entire picture of what was happening within the group through my journal observations and composition analysis alone. It may have been that my attention had been drawn to Freddie and Warren during weeks 4 and 5 because they were much more demonstrative and verbal in voicing

criticism than Simon and Alice. However, the video footage revealed that Simon and Alice were in fact very busy contributing to the group process.

Journal Observation Week 7

During week 7, journal observations suggested that Warren exerted more influence upon the group composing process than he had during week 6, and that Freddie continued to provide rich prosodic thematic content, remaining oblivious to the prosodic/musical misalignment of his suggestions.

> Warren exerted more influence this week. As a result, measures 3 and 4 fuse more harmoniously with the prosodic rhythm. Freddie continues to provide vivid prosodic/thematic content; also continues to miss prosodic/musical misalignment. (Journal Excerpt Week 7)

Week 7 journal observations also documented the fact that the group was experiencing difficulty representing the musical rhythm in their performance of their text-set rhythm.

> They had a difficult time putting the two (prosodic and musical rhythms) together. It didn't help that Simon was not reflecting the musical rhythm at all as he said the rhythm. Because Freddie was also (only emphasizing the prosodic rhythm), this effect was overwhelming. (Journal Excerpt Week 7)

The fact that the group continued to experience difficulty representing the musical rhythm in their performance of the completed rhythm provided further evidence of the third dominant trend identified during week 6: the possibility of two separate modes of rhythmic perception during the assembly and performance stages of the composing process.

Composition Analysis Week 7

Again during week 7, the presence of motivic transformation was observed in the completed musical rhythm (see Figure 13). Measure 3 was a representation of measure 1. turned inside out; the quarter notes that were placed on beats 2 and 3 in measure 1 were placed on beats 1 and 4 while the eighth notes that were placed on beats 1 and 4 in measure 1 were relocated to beats 2 and 3. Measure 4 was a repetition of measure 1. The tight correspondence between the musical rhythm and the chosen words suggested that

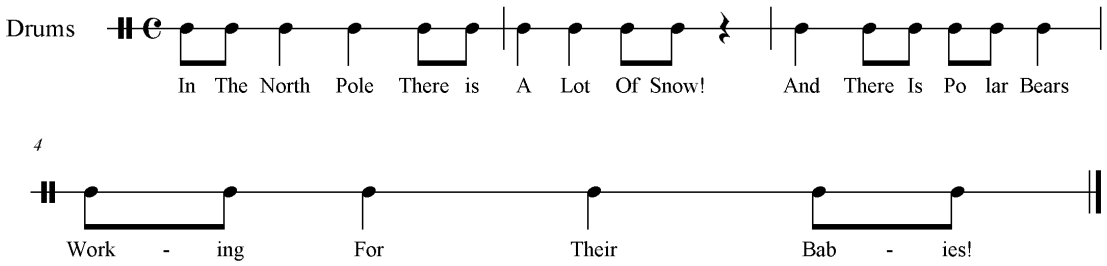
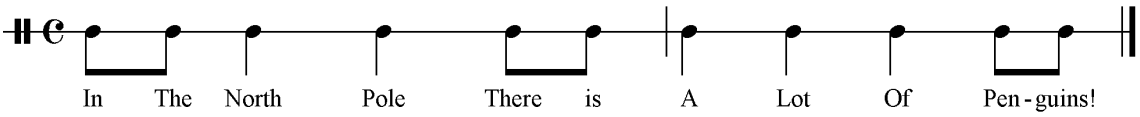


Figure 13: Case I: Week 7 completed rhythm

the majority of integrative composers (Warren, Simon, and Alice) were dominating Freddie's predominantly prosodic approach (see Figure 13).

Video Footage Week 7

Week 7 video footage further reinforced Freddie's role as a predominantly prosodic composer as well as Simon's use of integrated strategies. Simon immediately picked up from where the group left off the previous week, suggesting that "Of Penguins" should be added at the end of the second measure:



Simon's suggestion provided evidence of his integrated approach. Simon's suggestion was immediately rebuked by Freddie on semantic grounds. Notes taken during the review of the week 7 video footage depicted Freddie, not-so-subtly, reminding Simon that there were no penguins in the North Pole.

> Freddie informs Simon that there are no penguins in the North Pole. Simon disagrees. "Yeah, there is!" Freddie seems to be leading the discussion regarding chosen words; it is obviously very important to him that the rhythm sticks to the theme and makes sense. Freddie as well demonstrates an attempt at clapping the musical rhythmic values chosen as the group begins to work on measures 3 and 4. (Video Notes Week 7)

While Simon persisted, maintaining that there were in fact penguins in the North Pole, the group appeared supportive of Freddie's proclamation. It was evident that Freddie's reasoning was language-dominated, further reflecting his prosodic composer profile. Journal entries indicated that while Simon reluctantly accepted the group's rejection of North Pole penguins, he happily joined forces with Alice and worked through the musical rhythms to be adopted for the third and fourth measures. Week 7 journal entries described Simon continuing to fight for his prosodic preferences, suggesting "hibernating for their family" rather than the group-accepted, "working for their babies" that was suggested by Freddie (Journal Excerpts Week 7). Throughout his struggle, Simon demonstrated a relative ease moving back and forth between prosodic and musical composing strategies.

Through the review of my journal entries, compositions and video footage of week 7, it became apparent that while the group continued to make use of the resource of Freddie's strong prosodic ideas, the integrative process was dominating group composing. It was interesting to notice in the week 7 video footage that Freddie had also begun to make use of integrative composing strategies. This last development suggested that Freddie was learning to include the use of integrative strategies in his own composing process, which had to this point been predominantly prosodic dominated.

The fact that week 6 and 7 video footage revealed Simon and Alice to be much more integrally involved in the group composing process than I had thought, suggested that the integrative approach advocated through Warren's initial leadership in week 4 may have been reinforced by Simon and Alice throughout the remainder of weeks 5, 6, and 7. This evidence suggested that the gradual adoption of an integrative composing strategy by the entire group was democratic in nature, the composing process represented by the majority of group members determining the outcome.

A close examination of the week 6 and 7 journal entries, composition analysis, and video footage revealed that students seemed to make use of two distinct modes of perceiving rhythm during the assembly and performance of their rhythms (see Figures 14 & 15). During the process of assembling their rhythms, Warren, Simon, and Alice consistently made a strong correspondence between the group prosodic creations and their representation in musical rhythm. Video footage documented Alice clapping the constructed musical rhythms as the group progressed. In the absence of structured time, Simon, Warren and Alice seemed capable of making strong syllabic and prosodic correspondence with their musical rhythmic settings. However, when asked to perform

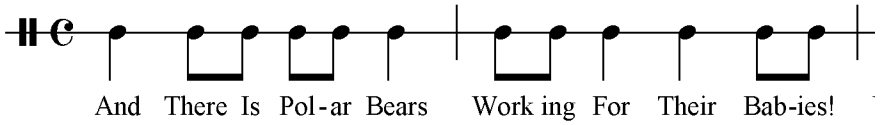


Figure 14: Notated version

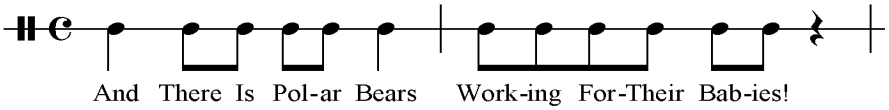


Figure 15: Performed version

their rhythm, there was a discrepancy noted between the group's notated rhythm and their performance of it. In the final measure, the group performed each word as if it had the duration of an eighth note, ignoring their setting of the words "for their" to quarter notes and adding a quarter rest that was not present in their notated version.

Student Interviews, Week 8

As previously discussed, all of the composing groups answered questions 1, 2 and 7 during the interview (see Appendix B). The transcription of this group's interview provided confirmation and triangulation of some of the composer processes and profiles outlined above. Throughout the interview, Freddie acted as a spokesperson for the group, confirming his leadership status. Ironically it was Freddie who, when asked how the group completed their rhythm responded, "We worked together. We listened to each other's ideas and we put them together in one big rhythm." In his explanation of the

composing process that was most helpful, Freddie consolidated his prosodic-dominated approach by stating, “Words. When you hear a musical rhythm, you don’t know what it’s about. In words, you hear it.” Freddie’s prosodic-dominated approach was further reinforced later in the interview when he stated that learning about musical rhythm had not helped him understand rhythm in language. If given the opportunity to compose another rhythm, Freddie stated that he would compose using words because, “In words you hear the rhythm and you hear the words together.”

In a similar fashion, the interview triangulated with the journal and videotape observations of the integrated approach employed by Simon, Alice and Warren. Elaborating on the approach that was most beneficial, Alice declared that, “It’s easier with music.” Warren added, “You can hear the rhythm in both.” When asked whether learning about rhythm had helped him learn about rhythm in music, Warren responded that working with prosodic rhythm was helpful because, “You hear how they fit together.”

Commenting on the strategy that they would use to compose another rhythm if they were given the choice, all four group members responded, “Words.” In spite of the fact that the convergence of chronologically assembled data depicted the dominant Case 1 composing strategy to be integrative, the above responses provided instances of preference for composing with words.

Case 2 - Mary-Ann, Steven, Julie, & Michael

In much the same manner as Case 1, Case 2 was comprised of two extroverted members and two members who were more introverted in nature. Both Mary-Ann and Steven were strongly opinionated students, verbally assertive in their expression of their

composing ideas. Julie tended to be more introspective, offering support to suggestions made by both Steven and Mary-Ann. Michael remained silent through most of the composing sessions, offering virtually no subjective input to the group beyond the occasional ridicule of suggestions made by other group members. During early composing efforts there seemed to be an unspoken sense of competition between the boys and the girls in the group.

Journal Observation, Week 4

During week 4, Steven appeared to be leading the group composing process. The group seemed to be partial to their original prosodic phrases. Week 4 journal observations revealed the fact that the group was having difficulty accommodating the meter (although the assigned meter was 4/4, the students had composed a rhythm with 5 beats).

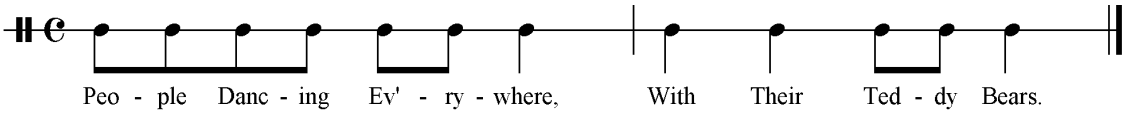
> This group had missed the instructions regarding meter (i.e., that each measure had to have four beats). They quickly saw the problem and, listening to their second measure, changed the musical rhythm. (Journal Excerpt Week 4)

This group was also one of three groups to make use of the quarter rest in their rhythms (even though their use of it created five beats). The above observation suggested that the group was initially preoccupied with their prosodic creation to the detriment of considerations of meter and that a dialectical relationship was emerging between prosodic phrase development and representation of meter.

Composition Analysis Week 4

A review of the week 4 composition suggested that the group made effective use of vocabulary generated from their word bank (see Figure 16). The week 4 composition

featured strong correspondence between prosodic and musical rhythms. The two prosodic phrases were combined to express a single cohesive image. The presence of repeated musical rhythm on beats 3 and 4 in the second measure suggested that the group was making use of motivic transformation to generate musical rhythms. On beats 1 and 2 of measure 2, quarter notes were substituted for the eighth notes that had been inserted on beats 1 and 2 of measure 1 (see Figure 16).



Theme: Playground

Word bank: Teddy-Bears, Slide, Swing, Jungle-Gym, Monkey Bars, Play, People, Go-Down, Cars, Dolls, Sand, In-The-Air, Birds, Music, Dancing

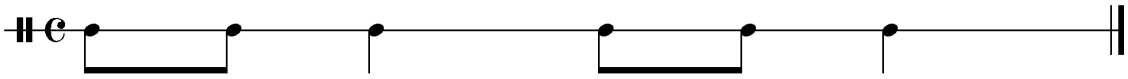
Figure 16: Case 2: Week 4 completed rhythm

Journal Observations Week 5

Week 5 journal observations documented a conflict between Mary-Ann and Steven, which seemed to symbolize their opposing composing strategies.

> In this group there was some heated arguing. Steven kept repeating, "I disagree with what you have created." (I think the argument was a reflection of the differing strategies clashing). While Mary-Ann and Julie were clearly trying to establish vocabulary, Steven was disappointed with how the words meshed with the rhythms. He thought it didn't fit or make sense. (Journal Excerpt Week 5)

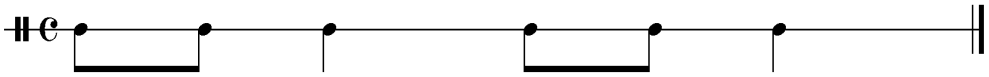
The prosodic rhythm that the group had composed did match the musical rhythm they had created:



Fly-------ing Ring (Underneath The) Slide.

I asked the group to perform the rhythm and ask themselves if they thought the rhythm of the words and the music fit together. When I returned to the group towards the end of the session, they had modified both the prosodic and the musical rhythm. Journal entries confirmed that the group made use of both prosodic and musical composing strategies to improve their rhythm.

> They began sounding out the words and the musical rhythm and modified the measure:



> Fly-----ing Ring Un------der---------neath
>
> These modifications were made by Mary-Ann and Julie. Steven was still not satisfied. (Journal Excerpt Week 5)

While the original prosodic rhythm did not accurately represent the meter or the established musical rhythm, it made more sense as a prosodic phrase. By changing the text-setting, Mary-Ann and Julie improved the representation of musical rhythm and meter, while compromising the cohesion and meaning of the prosodic phrase. This transformation provided further evidence of the dialectical relationship between prosodic phrase development and representation of meter that had been identified during week 4.

As indicated above, it became apparent during week 5 that some groups were competitively comparing the length of their completed compositions. I explained to the class as a whole that I was much more interested in the content of their compositions than their length.

Composition Analysis Week 5

A review of the week 5 composition revealed that the group was experiencing difficulty representing their original prosodic phrase, “Flying Ring Underneath The Slide” with musical rhythm. The group originally tried to represent the three syllable word “Underneath” with two eighth notes and eventually solved this problem by dropping the word “Slide,” allowing the two eighth notes followed by a quarter note on beats 3 and 4 to represent the word “Underneath.” This strategy reflected a musical approach on the part of Mary-Ann and Julie. In simply matching the three syllabic sounds of the word “Underneath” with the established musical rhythm, the girls had succeeded in reflecting the meter, but in doing so, compromised the strength of the original prosodic phrase. It was interesting that while the original rhythm could have been revised by substituting four sixteenth notes for the two eighth notes to which they had set the words “Underneath The” the group chose to edit the prosodic content instead. By the end of the composing session, only one measure had been matched with words. The composition analysis of week 5 provided further evidence of the dialectical relationship described above as well as the emergence of the use of musical strategies to complete the group composition. As much of the revision had taken place while I was observing other groups, I resolved to watch this group more closely during week 6 to ascertain more clearly how they were revising their rhythm.

Journal Observations Week 6

During week 6, there seemed to be more cohesion to the group's efforts, and composing roles and processes became clearer. It appeared as though Mary-Ann had moved into a leadership role within the group, collaborating closely with Julie and Steven. Journal observations suggested that Mary-Ann was making use of musical performance strategies to lead group composing process.

> When asked to reproduce the rhythm, Mary-Ann clapped the musical rhythm as she recited the prosodic rhythm. (Words are being fitted to musical rhythm). Mary-Ann has moved into a leadership role. She was frustrated last week. Steven, who was generating words, allowed Mary-Ann more room to work from the musical side. As a result, they were more effective as a composing unit. (Journal Excerpt Week 6)

Closer examination of group process during week 6 revealed that the composing roles were the opposite of what I had thought during weeks 4 and 5. It became apparent that Mary-Ann was composing using musical performance strategies, while Steven was generating words. In retrospect it seemed that Steven's frustration during week 5 may have resulted from the fact that Mary-Ann's and Julie's use of musical strategies to revise the week 5 rhythm dramatically reduced the impact of his prosodic phrase. This observation suggested that Steven was demonstrating a leadership role campaigning for his prosodic approach. The above observation also suggested that leadership roles displayed by Steven and Mary-Ann were contributing to the emergence of the dialectical relationship between prosodic phrase development and representation of meter noted during weeks 4 and 5.

Composition Analysis Week 6

The possibility emerged that the conflict, which had characterized the group's composing behaviour during week 5, may have also been influenced by gender issues. A review of the week 6 group rhythm revealed that the group had begun to divide up prosodic content on a measure to measure basis on the basis of gender (i.e., one measure of boy content followed by one measure of girl content). As conflict seemed to have dissipated during week 6, it was possible that a simple division of prosodic content based upon gender may have helped resolve the issue (see Figure 17).

Reinforcing the notion that the group had spent their time resolving gender-based conflict during the generation of prosodic rhythm was the fact that little ingenuity was represented in the musical rhythm (measure 2 was a repetition of measure1).

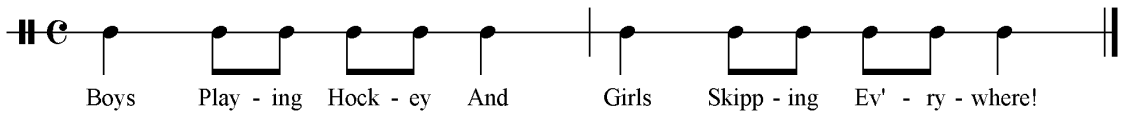


Figure 17: Case 2: Week 6 completed rhythm

Video Footage Week 6

Video footage of Case 2 during week 6 revealed that the group was capable of representing both their prosodic and musical rhythms in their performance of the completed rhythm.

This group seems to have a representation of the musical rhythm when they performed it with the words. Mary-Ann takes the musical lead, clapping the musical rhythm as it is performed with the group. While the group performs the

> words, she keeps the musical rhythm alive in the ears of the group. As a result, the integration of the prosodic and musical rhythmic setting is very strong and clearly audible. (Video Notes Week 6)

The fact that Case 2 demonstrated the ability to represent the musical rhythm in their performance of the completed rhythm during week 6 may have been associated with the observation that Mary-Ann persisted in using musical performance strategies throughout the development of the rhythm. It is possible that, by keeping the musical rhythm present throughout the composing process, Mary-Ann contributed to its preservation in the performance of the completed rhythm.

Journal Observations Week 7

Journal observations of week 7 indicated that some of the conflict evident in the group's early composing efforts may have been due to gender differences in choices of prosodic material. "Interesting how this group has democratically solved the boy vs. girl conflict by sharing content" (Journal Excerpt Week 7). In spite of the fact that the above solution had been implemented by the group, week 7 journal observations also depicted Michael as attempting to disrupt group behaviour, vying for Steven's attention.[14] "Michael was trying his best to sabotage the group's efforts by attempting to distract Steven from the group. Because Mary-Ann was so strong, he was unsuccessful" (Journal Excerpt Week 7). Week 7 journal observations further indicated that the division of composing based upon gender may have created a spirit of competition. Journal entries revealed how the boys vs. girls composing context that had been adopted by the group may have prevented the group from working together to hone and revise the integration of their prosodic and musical rhythms. "There are some awkward text-settings; some that

simply don't work and my sense is that this group never really was functioning as a group but rather as boys vs. girls, taking turns to create a bar" (Journal Excerpt Week 7).

Composition Analysis Week 7

The gender-based division of composing that was adopted during week 6 continued to persist in the week 7 composition (see Figure 18). Consistently throughout the entire composition, either a measure of boy prosodic content was followed by a measure of girl content or vice-versa. A close examination of the week 7 composition revealed frequent repetition in the musical rhythms. Measures 1 and 2, and measures 5 and 6 have identical musical rhythms. The large degree of repetition reinforced the week 7 journal observations that musical rhythmic considerations were being avoided due to preoccupation with the generation of boy vs. girl prosodic content. The frequency of repetition in the musical rhythm may also have facilitated ease of performance of the musical rhythms on Mary-Ann's part, thus ensuring its presence throughout the composing process.

The presence of motivic transformation was evident in measures 7 and 8 (see Figure 18). Measure 7 was a derivative of measure 2; the quarter note that was inserted on beat 4 in measure 2 was replaced by eighth notes on beat 4 in measure 7. Similarly, measure 8 was almost identical to measure 4; the eighth notes used on beat 4 of measure 4 were replaced by a quarter note on beat 4 in measure 8. It is interesting to observe that the methods of substitution were mirror opposites (i.e., substituting two eighth notes for one quarter note, and subsequently one quarter note for two eighth notes). The presence of the above uses of motivic transformation provided further documentation of the use of musical reasoning.

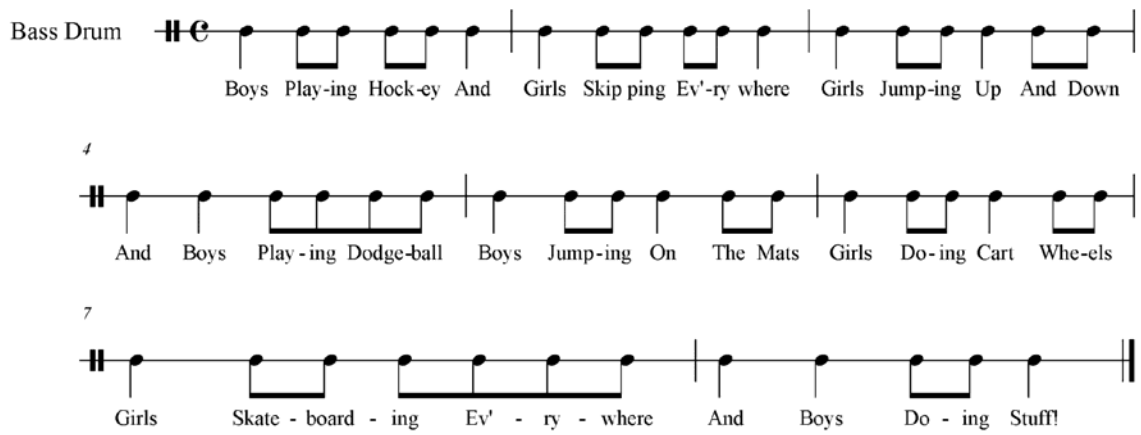


Figure 18: Case 2: Week 7 completed rhythm

Video Footage, Week 7

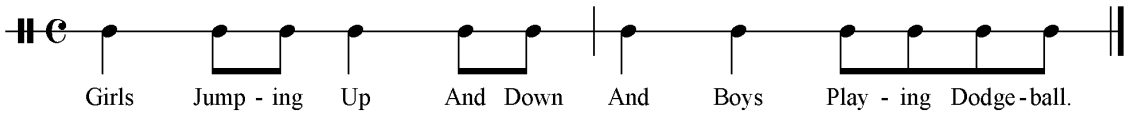
Video footage revealed that Michael was disruptive throughout the composing process, making no contribution to musical rhythms and ridiculing and making fun of prosodic suggestions made by all others in the group. Mary-Ann continued to use musical performance (hand clapping of the musical rhythms) to keep musical rhythmic content present in the ears of all group members throughout the composing process. Some awkward and incorrect text-settings were created and my sense was that the group's energy during week 7 was spent more on the gender-based division of labour than on composing as a group (see Figure 18).

In addition, the videotape of week 7 revealed this group to be distinctive in their use of musical leadership and musical rhythmic strategies as dominating guiding tools. At every stage of the development of the rhythm (development of musical rhythms, and development of prosodic rhythms), Mary-Ann clapped out the musical rhythms created by the group. In this manner, the group was unique because Mary-Ann's performance of

the musical rhythm ensured that all prosodic creations conformed to the music. Through Mary-Ann's leadership, the group was music-dominated in their composing process.

A review of week 7 video footage revealed discrepancies between the notated versions of completed rhythms and the group's performances of notated rhythms (see Figure 19). In the group performance of the first measure, each of the syllables in the words "Jumping Up And Down And" were assigned the duration of an eighth note, deviating from the notated version in which the word "Up" was set to a quarter note. Having shifted the word "And" from the beginning of the second measure to the end of the first, the group performance of measure 2 began with the original notated setting of "Boys Playing" to a quarter note followed by two eighth notes, followed by a deviation from the original version, with the setting of the word "Dodgeball" to two quarter notes (see Figure 19).

Notated Rhythm:



Performed Rhythm:

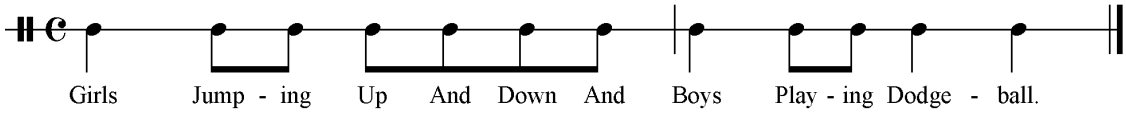


Figure 19: Case 2: Week 7 Notated Rhythms vs. Performed Rhythms

The evidence of the discrepancy between the group's notated and performed version of the week 7 composition was inconsistent with the group's effective representation of the musical rhythm during the performance of the week 6 rhythm. This above inconsistency suggested that the group may have used separate modes of rhythmic perception during the assembly and performance stages of their compositions.

Student Interviews Week 8

Mary-Ann confirmed her leadership role within the group during the interview by spontaneously taking on the role of spokesperson for the group. Although Mary-Ann stated that the group began composing with words, when she elaborated on which method she would employ to create another composition if she were given an opportunity, she responded, "Music. It's easier to work with music to the words." Mary-Ann's response affirmed her music-dominated composer profile. If given an opportunity to create another composition, both Steven and Julie responded that they would compose using words. Steven elaborated: "If I do the music first, I have to find the music that matches the words. It's easier to make the rhythms with the words." Steven's response revealed his prosodic-dominated composing process. Michael did not respond to any of the questions.

A review of the interview of students in Case 2 confirmed journal and videotape observations that Mary-Ann was functioning in a leadership role and dominating the group composing process using musical strategies. The interview with Case 2 members further triangulated my observations that Steven made attempts to challenge Mary-Ann's leadership, campaigning for a leadership role motivated by prosodic content. As Mary-Ann dominated as leader within the group, her music dominated approach was instrumental in leading group composing process. The prosodic suggestions made by

Steven and occasional integrated offerings by Julie were subordinate to the music dominated strategies which Mary-Ann impressed upon group composing process.

Summary

Through a description of individual composing processes and profiles that emerged from the composing behaviour of the members of two groups during weeks 4 through 7, Chapter 4 described the emergence of two distinctive group composing processes. By tracing the chronology of composing behaviour during weeks 4 to 7, Case 1 demonstrated an evolution towards an integrative group composing process. In the same manner, the chronology of Case 2 composing behaviour during weeks 4 to 7 revealed the dominance of musical strategies in the development of group composing process. In addition, Chapter 4 identified four emergent trends of composing behaviour common to both case groups: 1) a dialectical relationship between phrasal development and conception of meter, 2) the influence of leadership roles upon group composing strategy, 3) the presence of differing modes of rhythmic perception, and 4) an ambiguity regarding future preferred composing strategy. Observations of composing behaviours and trends were triangulated with an examination of completed compositions, videotape, and student interviews. Chapter 5 explores the above trends of composing behaviour in greater depth and contextualizes them within the framework of some of the literature presented in Chapter 2.

CHAPTER FIVE

Dominant Emergent Group Processes and Composing Trends

In my initial review of the literature, three research questions arose: 1) How do children make use of prosodic and musical rhythm in their rhythmic compositions? 2) Within the composing process does one system of composing (prosodic or musical) dominate, or do children integrate these two systems in their composing processes? and 3) How does group membership influence the interaction between these two composing systems? In an effort to address these questions, the purpose of my study was to observe the manner through which Grade 2 students from two classes combined prosodic and musical rhythm in their compositions. Analysis of the data revealed two distinctive group composing processes: an integrative approach, and a music dominated approach and four distinctive composing trends: 1) a dialectical relationship between phrasal development and conception of meter; 2) the influence of leadership roles upon group composing strategy; 3) the presence of differing modes of rhythmic perception, and; 4) an ambiguity with regards to future preferred composing strategy. Chapter 5 begins with a cross-case analysis comparing Case 1 and Case 2 with regards to the emergence of overall group processes and each of the emergent composing trends. Subsequently, through an examination of each of the group processes and the four emergent composing trends, Chapter 5 addresses my initial research questions and considers the significance of group composing processes and each dominant composing trend through reflection upon literature reviewed in Chapter 2.

Cross-Case Analysis

Through a comparison of the independent chronology of the two case groups, it became apparent that there were both differences and similarities of composing behaviours. In order to clarify the distinctive manner through which group composing processes and the four composing trends emerged in each Case group I compare the chronological evolution of composing behaviour in each.

Overall Group Process

The emergence of overall group processes appeared to be determined by the influence of individual composing strategies employed by students in leadership roles. In both Case groups, it seemed that group members gradually adopted the composing strategy used by a particular student in a leadership role as the overall group composing process. While it appeared that each group adopted a dominant overall composing process, there seemed to be evidence of four individual composing strategies employed by students at various points during weeks 4-7. A description of these strategies follows.

Individual Composing Strategies

At various points during weeks 4-7, it appeared that members of Case 1 and Case 2 made use of either prosodic-dominated,[15] integrated, or music-dominated strategies to influence group composing process. Students using the prosodic-dominated strategy of composing tended to be enthusiastic about prosodic thematic content. Such students seemed to contribute richly descriptive prosodic content often in lengthy phrases that did not match group generated musical rhythms or musical meter. Students using the prosodic-dominated approach appeared to make infrequent suggestions with regard to the development of musical rhythm and suggestions that were made appeared to be

motivated by prosodic considerations. Freddie of Case 1 stood out as the student who made the most consistent use of the prosodic-dominated approach during the study. In contrast, students who made use of integrated strategies tended to make suggestions pertaining to the development of both the musical and the prosodic rhythm.

Students using the integrated approach seemed to consider the sound significance of words that they suggested for prosodic rhythm. Such students seemed to be sensitive to the extent to which word rhythm and musical rhythm matched within the flow of completed rhythms. Possibly as a result of their attention to the sound-significance of suggested prosodic material, words and phrases suggested by students using the integrated approach seemed to be less descriptive than those suggested by students using the prosodic-dominated approach yet their suggested prosodic content seemed to more accurately match musical rhythm and musical meter. Warren, Simon and Alice (Case 1) and Steven and Julie (Case 2) made use of integrated strategies.

Alternatively, students using a music-dominated approach seemed to be preoccupied with the creation and preservation of musical rhythms. The contribution of such students towards the development of prosodic material was characterized by a determination to ensure that the rhythm inherent in all suggested prosodic material conformed exactly to existing musical rhythm. Students who made use of the music-dominated approach were distinguished from those using the integrated approach in that they appeared to be biased towards the preservation of musical rhythm whereas students using the integrated approach tended to demonstrate fluidity, fluctuating between prosodic and musical considerations without strategic preference. Mary-Ann (Case 2)

emerged as the student who consistently made use of music-dominated strategies during the study.

While both Case groups eventually adopted a dominant group composing process that seemed to be influenced by the individual composing strategy employed by a particular student in a leadership role, there were differences in terms of the timing and clarity of how group process emerged in each respective case group. As such differences contribute to an understanding of the strength of the cohesion of each respective group process adopted, a brief comparison of the chronology of the emergence of group processes in Case 1 and Case 2 follows.

Throughout weeks 4-7 the conflict between opposing composing strategies was marked and evident in Case 1. Early in the group's composing efforts (weeks 4 and 5), it became clear that Freddie's use of prosodic-dominated approach and Warren's use of integrated strategies were clashing. Power appeared to shift from Freddie to Warren in week 4. During week 5 Warren's integrated approach seemed to guide group efforts. During weeks 6 and 7 Freddie seemed to renew his efforts to influence group process using prosodic dominated strategies; however video footage seemed to indicate that the combined use of integrated strategies on the part of both Simon and Alice provided reinforcement towards the adoption of an integrated group process. During week 7, even Freddie appeared to be making use of integrated strategies, completing the adoption of the integrated approach. The chronology which emerged from the examination of evolution of Case 1 group composing process appeared to indicate that over the duration of weeks 4-7, the group became increasingly integrated in its approach.

In Case 2 the emergence of an overall group process was less immediately clear than it was in Case 1. While Steven seemed to be leading Mary-Ann and Julie in prosodic considerations during week 4, it was ambiguous who was employing which specific strategies within the group process. During week 5 it seemed that Steven was concerned with the manner in which the rhythm formed by words matched musical rhythm, suggesting the possible use of integrated strategies. During week 5 Mary-Ann and Julie appeared to be concerned with generating new words, which I thought at the time indicated the possibility that they were using prosodic-dominated strategies. There was a conflict between Steven and Mary-Ann regarding the match of prosodic and musical rhythms. During week 6 it appeared that my assumptions regarding individual strategies used during week 5 were wrong as Mary-Ann was using music performance strategies to shape the development of the group rhythm. Mary-Ann persistently clapped the musical rhythms throughout the group process to ensure their presence during the contemplation of prosodic material. It appeared that Mary-Ann's use of music-dominated strategies was leading group process. The possibility occurred to me that the attempt by Mary-Ann and Julie to find new words during week 5 may have been motivated by an effort to preserve existing musical rhythms. During week 6 it seemed that the conflict observed during week 5 had been resolved in part through the gender division of the composing of prosodic content. During week 7 group members seemed content to allow Mary-Ann's performance of musical rhythms to determine the rhythmic selection of prosodic material. The chronology that emerged from the examination of the evolution of Case 2 group composing process appeared to indicate that over the duration of weeks 4-7, the group

evolved from an ambiguous group process during weeks 4 and 5 towards the eventual adoption of a music-dominated strategy during weeks 6 and 7.

Emergent Composing Trends

There were notable differences and similarities observed between the two groups with regards to the manner through which the composing trends emerged. The following four composing trends are discussed below: a dialectical relationship between phrase development and conception of meter, leadership roles, modes of rhythmic perception, and an ambiguity of future preferred composing strategy.

A dialectical relationship: Phrase development and conception of meter.

While issues relating to the dialectical relationship, phrase development, and representation of meter appeared to create conflict within both Case groups, the degree of clarity as to how such conflicts arose and the manner through which such conflicts were resolved differed from group to group. Within Case 1 issues related to the dialectical relationship between prosodic phrase development and representation of musical meter emerged early. Beginning in week 4 Warren used integrated reasoning to point out to Freddie that his chosen prosodic phrase did not match the created musical rhythm. The fact that Freddie consistently failed to represent the musical rhythm or the meter in his prosodic creations made the connection between individual composing strategies and the conflict that resulted from them very clear. Almost the entire group composing process of Case 1 could be characterized by repeated efforts on the part of Warren, Simon, and Alice to modify Freddie's prosodic-dominated suggestions with their integrated strategies. It seemed that throughout weeks 4-7, when Warren, Simon, and Alice became engaged in pointing out mismatches in Freddie's suggestions, the overall character of

completed compositions changed. Work created under the influence of Warren, Simon, and Alice appeared less descriptive but stronger in its representation of musical rhythm and meter.

While Case 2 also seemed to encounter conflict arising from the dialectical relationship between prosodic phrase development and representation of musical meter, the manner through which they resolved such conflicts was less clear than it was in Case 1. While it was obvious during weeks 4 and 5 that the group was having difficulty fixing mismatches between prosodic and musical rhythms, it remained unclear who was responsible for the strategies leading to these conflicts. It seemed that my assumptions about individual composing strategies used during week 5 were wrong. It was not until week 6 that video footage provided evidence that Mary-Ann was making use of music-dominated strategies to lead group composing process.

It is interesting to note that both Case groups seemed to resolve issues relating to the dialectical relationship between prosodic phrase development and representation of musical meter by paying increased attention to the sound-significance of suggested words. The manner through which each group manifested this increased attention to the significance of the sound of word rhythms seemed to differ, however, in that Case 1 continued throughout to consider the implication of both musical rhythm and word rhythm from both perspectives, while Case 2 seemed to consider only the sound of word rhythm to the extent that it conformed to the musical rhythms that were clapped by Mary-Ann. The differences with which the two groups resolved the conflict presented by the dialectical relationship above seemed to reinforce the overall group composing processes.

Leadership roles.

Through the cross-case analysis, it became apparent that there were differences and similarities between Case 1 and Case 2 in terms of how the influence of leadership roles emerged as a composing trend. The differences are discussed with respect to 1) the timing of the emergence of leadership roles, 2) the degree of group cohesion in relation to leadership roles, and 3) the significance of gender roles as a determining factor of leadership roles. Finally, similarities regarding the means of obtaining power observed within both case groups are described.

The first difference between the manner through which the influence of leadership roles emerged in Case 1 and Case 2 was related to timing. In Case 1, it became evident during week 4 that Freddie and Warren were in conflict with regard to leading group composing process. As has been previously discussed, the Case 1 composing behaviour has been characterized by shifts of power between Freddie advocating prosodic-dominated approaches and Warren supported by Simon and Alice using the integrated approach. By week 7 Case 1 seemed to have adopted the integrated approach advocated by Warren as the group composing process. In contrast, conflict relating to power and control of composing process in Case 2 did not surface until week 5 (between Steven and Mary-Ann). It was not until week 6 that Mary-Ann emerged in a leadership role, leading the group process using music-dominated strategies.

The second difference between the emergence of the influence of leadership roles between the two groups was observed in the degree of group cohesion. Not only did conflict with regard to leadership roles emerge earlier in Case 1 than in Case 2, but also it seemed that this conflict persisted for longer in Case 1 than in Case 2. The members of Case 1 continued to have conflict over leadership throughout weeks 4 to 6. By week 7,

the group seemed to have adopted an integrated approach. In contrast, the conflict surrounding leadership that emerged during week 5 in Case 2 seemed to have been resolved by week 6. The members of Case 2 seemed to compose as a cohesive group harmoniously under Mary-Ann's music-dominated leadership during weeks 6 and 7.

A third difference between Case 1 and Case 2 with regards to the emergence of leadership roles was evident in the degree of gender conflict inherent in each. Within Case 1, gender did not appear to be a factor influencing composing process or leadership. Rather, composing behaviour was influenced by individual composing strategies in combination with leadership roles. In contrast, in Case 2 gender did emerge as a factor influencing group composing process. The fact that members of Case 2 divided the composing of prosodic material along gender lines beginning in week 6 seemed to contribute to the diffusion of group conflict.

Finally, members of Case 1 and Case 2 were similar in the manner through which leaders acquired power. Within both groups leaders seemed to acquire positions of power through the demonstration of effective composing strategies. In Case 1 Warren seemed to move the group process away from Freddie's prosodic-dominated approach by pointing out mismatches between prosodic and musical rhythms and subsequently working with group members to fix the mismatches. In Case 2, Mary-Ann obtained a position of power by consistently demonstrating the use of a performance strategy, keeping the musical rhythm audible in the ears of group members throughout the composing process.

Modes of rhythmic perception.

Although both Case groups experienced periodic difficulties representing their notated musical rhythm in their performance of completed rhythms, Case 2 differed from

Case 1 in its successfulness in representing its musical rhythm in the performance of its week 6 completed rhythm.

It is possible that Case 2 was successful in representing its musical rhythm in their performance of their week 6 rhythm due to the fact that Mary-Ann kept it present in the ears of the group members throughout the composing process. Another factor that may have contributed to the preservation of the musical rhythm in the Case 2 performance during week 6 may have been the fact that it contained a lot of repeated material, which may have rendered it easier to remember. It was possible that Case 2 members had a difficult time representing their musical rhythm in the performance of the week 7 rhythm because it was significantly longer. Their division of prosodic composing along gender lines during weeks 6 and 7 seemed to lead to the creation of prolific amounts of completed rhythm. It is further possible that Case 1 members may not have been as successful at representing their musical rhythms in their performance of completed rhythms as they appeared to spend more time resolving conflict and did not seem to make use of a performance strategy.

Ambiguity of future preferred composing strategy.

During week 8 a discrepancy seemed to emerge within both Case groups between group process that had been documented by data collected during weeks 4-7 and individual statements made during interviews regarding which composing strategy students would prefer to use in future projects. In Case 1, Warren, Simon, and Alice made use of integrated strategies to complete group rhythms, yet all four Case 1 members stated that they would choose to compose using words in the future. Similarly, in spite of the fact that both Steven and Julie appeared to adopt the music-dominated approach used

by Mary Ann to lead group composing process, both stated that they would choose to compose using words in future projects.

Connections to Research Questions and Reviewed Literature

While the descriptions of composing behaviours in Chapter 4 and in the above cross-case analysis have elaborated upon the manner through which the two overall group processes and the four composing trends emerged, it remains pertinent to reconsider the emergence of these processes and trends within the context of my original research questions and the literature reviewed in Chapter 2.

Group Composing Processes

The review of overall group processes that emerged from Case 1 and Case 2 during weeks 4-7 provided partial answers to all three of my research questions. The examination of how group process emerged in each Case group seemed to indicate that the manner through which individual students approached their compositions (questions 1 and 2) directly influenced the group composing strategy that was adopted by each Case group (question 3). The specific composing strategy that each student used to contribute to their group composition appeared to have a direct impact upon the determination of leadership roles within each group. The degree to which students in leadership roles demonstrated effective use of their chosen strategy seemed to not only strengthen their leadership, but it also determined the group process adopted by group members.

The changes in both leadership and adopted group composing strategy reflected in the above process appeared to have a direct impact upon the characteristics of completed compositions. In Case 1, the manner through which Warren's leadership was collaborated by Simon and Alice resulted in compositions featuring prosodic content that strongly

adhered to both musical rhythm and meter unlike the compositions created under Freddie's influence that were richly descriptive but lacking representation of musical rhythm and meter. Similarly in Case 2, compositions created during weeks 4 and 5 when the individual and group composing processes remained ambiguous led to mismatches between prosodic and musical rhythm. During weeks 6 and 7 however, when Mary-Ann emerged as a music-dominated leader, compositions featured stronger representations of musical rhythm and meter. While it appeared that the establishment of overall group composing processes reflected the interrelationship between composing behaviour associated with all three of my research questions, the influence of cooperative learning upon this process pertained more specifically to question 3: How does group membership influence the interaction between prosodic and musical composing strategies?

Although it has been previously stated in Chapter 2 that I found no research that had specifically examined the influence of cooperative learning upon music composition projects, the manner through which the overall group composing processes emerged in both Case groups in this study provided interesting points to reconsider within the context of research that has been conducted regarding cooperative learning in other subject areas. In order to describe these points of consideration, the manner through which overall processes emerged in both Case groups will be discussed with regard to features of reviewed literature associated with all five of the essential components of cooperative learning proposed by Johnson and Johnson (1999).

Positive interdependence and individual accountability, the first two essential elements of cooperative learning described by Johnson and Johnson (1999), are related to one another. Johnson and Johnson suggested that positive interdependence is established

within cooperative groups to the extent that students perceive that each individual member of the group is successful in completing group objectives, thus ensuring group success. They further maintained that an effective method of establishing positive interdependence is by providing group rewards based upon individual accountability. By holding individuals within the group accountable through the use of assigned roles, tests, or by asking individual students to explain what they have learned to their group or to classmates, Johnson and Johnson suggested that a greater likelihood of unanimous individual contribution towards group goals could be established. Research conducted by Slavin (1999, 1995), Kassner (2002), Kaplan and Stauffer (1994), and Cohen (1994) provides further support for the significance of positive interdependence and the establishment of individual roles.

I decided not to assign individual roles to the students in my study. However, group composing roles were assigned during every week of the composing unit except for week 5 when students were encouraged to use their strategy of choice, and week 8 when the Case groups were either drawing pictures to accompany their completed compositions, or being interviewed. During weeks 1-4 and 6-7, students were assigned a group role in that they were given a specific composing strategy to use (i.e., Case 1, music to word; Case 2; word to music). My decision to assign group composing roles was informed by the fact that I wanted to observe the extent to which direction of composing strategy had upon composing process.

In conjunction with research conducted by Johnson and Johnson (1999), in addition to providing group composing roles within the composing groups a group reward was offered to all composing groups as well. As indicated in Chapter 3, all

composing groups were informed during week 4 that their completed compositions would be mounted on display boards and presented on tables in the hallway during the school spring performance. By informing all students that their work would be publicly displayed, I hoped to provide each group with an incentive to produce the best group composition they were capable of producing. While there is insufficient data to firmly establish whether or not this group reward contributed to group motivation, positive interdependence, or individual accountability, the quality of both the completed compositions and the art work that was attached to them indicated that much care and creativity went into their production.

With specific regard to my third research question concerning group membership, it seemed that my decision to assign group composing roles and rewards and alternatively not to assign individual roles inversely affected the overall group composing processes adopted. In spite of the fact that I gave specific instructions as to which composing strategy was to be used by students during weeks 4, 6, and 7, it seemed that these instructions had little to no effect upon the overall group composing processes adopted by each Case group. In contrast, despite my decision not to assign individual roles, the influence of individual composing strategies appeared to determine leadership roles that subsequently influenced the development of overall group composing processes in both Case groups.

A review of the data presented in Chapter 4 and the description of the cross-case analysis above demonstrated that the assigned composing roles seemed to have little or no effect on the overall adopted group process. While it is possible that Freddie began composing using the word to music approach because he listened to the instructions

during week 4 (week 4 was a word to music week), it became clear that a prosodic-dominated approach was the strategy that he made consistent use of during week 5 (when the group had its choice), or during weeks 6-7 when students were instructed to use the music to word approach. Similarly, regardless of the instructions regarding which composing strategy to use, Warren, Simon, and Alice consistently used an integrated approach. In Case 2, it is possible that instructions to use the word to music approach during week 4 and the fact that they were given a choice during week 5 may have led to initial mismatches between prosodic and musical rhythms that appeared during weeks 4 and 5, but by week 6 it was clear that the group was being guided by Mary-Ann's music-dominated strategies in spite of the fact that they were instructed to use the word to music approach during weeks 6 and 7.

While there is insufficient data to establish the consequences of my decision not to assign individual roles conclusively, it seemed that this decision may have allowed students the freedom to discover their individual composing voices naturally. To this extent, it is possible that the freedom from assigned roles may have allowed individual strategies to influence the development of leadership roles, which seemed to be influential in determining overall group composing process.

Through a consideration of my decision to assign group composing roles and alternatively not to designate individual roles (Johnson and Johnson, 1999), it appeared that these parameters of cooperative learning functioned differently within a music composition context. Contrary to Johnson and Johnson's recommendations, my decision to assign group roles appeared to have little or no influence upon the determination of overall group composing processes. Also inconsistent with Johnson and Johnson, my

decision not to assign individual roles appeared to allow for the emergence of individual composing voices which subsequently determined leadership roles and consequently adopted group composing processes.

Just as positive interdependence and individual accountability, the first two essential elements of cooperative learning established by Johnson and Johnson (1999), are related by the extent to which individual contributions influence levels of group positive interdependence, so too are their final three essential elements, face to face promotive interaction, social skills, and group processing all connected in terms of the quality of group interaction that takes place within a group. Each is discussed individually.

Johnson and Johnson (1999) maintained that as the amount of "face to face interaction" evolves within group processes, increased levels of "accountability to peers," and individual efforts on the part of individuals to "influence each other's reasoning and conclusions, social modeling, social support, and interpersonal rewards" emerge (p. 71). While there was a high degree of face to face interaction evident in the composing behaviour of both Case 1 and Case 2, it was not always "promotive" in nature. Although group members who shared an orientation towards a specific composing strategy seemed to be mutually supportive, interaction between members with opposing composing strategies seemed to be in frequent conflict. Social interaction appeared to be democratic in nature; the strategy adopted by the majority of composers eventually being adopted as the overall group composing process. Within this process however, a number of the behaviours which Johnson and Johnson attributed specifically to face to face promotive interaction were demonstrated. Students in both Case groups were observed "orally

explaining how to solve problems, discussing the nature of what is being learned, teaching one's knowledge to classmates, and connecting present with past learning" (p. 71).

Prior to participation in cooperative learning, Johnson and Johnson (1999) insisted that students must be taught "small group and interpersonal skills" and "leadership, decision-making, trust-building, communication, and conflict management skills" (p. 71). During the whole class instruction of weeks 1 to 4, I did make an effort to model social skills such as the importance of listening and considering the ideas of everyone in the group. I further reinforced the importance of such social skills throughout the entire composing unit when I noticed that students were experiencing individual conflict. In spite of the modeling of the social skills described above, I suspect that my students would have benefited from more training in this regard. It is entirely possible that more social skill development within Case groups would have better equipped students to address conflicts that emerged as a result of conflicting composing strategies.

The final essential element of cooperative learning described by Johnson and Johnson (1999) was group processing. They stressed the importance of providing students with an opportunity to discuss collectively "how well they are achieving their goals and maintaining working relationships" (p. 71). While students within both Case groups did seem to proactively assess group performance as it pertained to the development of the compositions, they would probably have benefited from having more time to spend reflecting and discussing group performance separate from the process of composing itself.

As has been discussed above, I made decisions that deviated from some recommendations advocated within the research literature regarding essential elements of cooperative learning in association with other subject areas. My decision not to assign individual roles seemed to promote the emergence of individual composing voices. While the decision to provide group composing roles did comply with recommendations by Johnson and Johnson (1999), such roles seemed to have little or no effect upon the overall group processes adopted. Although the establishment of group rewards complied with the reviewed research, there was insufficient data to establish conclusively the consequences of such rewards. While observations of the manner through which the eight students in my study worked together to complete their compositions provide two interesting Cases of cooperative learning within a specific music composition project, such learning is context specific and can not be generalized to other populations involved in the same or similar projects.

Having reconsidered both of the overall group composing processes that emerged within this study within the context of the three research questions presented in Chapter 1 and the research reviewed in Chapter 2, questions remain regarding the dominant emergent composing trends. In this concluding section of Chapter 5, the extent to which each of the emergent dominant composing trends and the other themes generated through cross case analysis address the above research questions and reviewed literature are discussed.

Emergent Composing Trends

A dialectical relationship: Phrase development and conception of meter.

An examination of group composing processes exhibited by Case 1 and Case 2 in the data presented in Chapter 4 and in the cross-case analysis above demonstrated that the group composing strategy directly influenced the extent to which phrase development and metric consistency were evident within group compositions. Data presented in Chapter 4 demonstrated that during instances of prosodic-dominated composing, groups tended to produce fully formed prosodic rhythms with a high degree of phrasal development, while experiencing difficulty setting their prosodic rhythms to musical rhythm. In contrast, during instances of music-dominated, or integrative composing, groups tended to create compositions featuring strong metric consistency with weaker demonstration of prosodic phrase development.

While the adoption of group composing process was seen to be determined by the influences of leadership, the extent to which the group composing strategy reflected one side of the dialectical relationship provided further insight into all three research questions that guided my study. The dialectical relationship provided specific insight into the manner through which students combined prosodic and musical rhythm in their compositions, suggesting that composing behaviour associated with a particular strategy (prosodic or musical) reduced the influence of the other. The extent to which group interaction generated acceptance of compositions rendered by the dominance of either phrase development or concept of meter reinforced the lasting power of the chosen strategy in question. For example the instance of Freddie's initial prosodic creation of Week 4, and group perception of shortcomings resulting from the adoption of one or the

other composing tendencies led to a change of power and a corresponding shift towards the opposing strategy. As the dialectical relationship between phrase development and conception of meter addressed aspects of all three of my research questions, it became important to reconsider its significance within the context of literature reviewed in Chapter 2.

I propose three possible explanations for the above dialectical relationship. The first explanation is derived from research investigating early mastery of prosodic rhythm. One of the key foundations of my study was the research findings that suggested that attention to prosodic features of language form a primary function throughout the development of linguistic and musical awareness (Bergeson & Trehub, 2006; Fernald, 1989; Fernald & Mazzie, 1991; Magne et al., 2003). As research has indicated that children begin streaming prosodic rhythm from infancy onwards, it is not surprising to have observed that the prosodic process of composing was dominant rendering a high degree of phrasal sophistication within most groups (Bergeson & Trehub, 2006; Boisen, 1981; Hansen, Bernstorf, & Stuber, 2007; Nketia, 2002; Patel, 2003; Saffran, 2003; Schreiber, 1991). However, it is possible that the two Case groups did not have enough experience manipulating musical rhythm to render more phrasal sophistication within their musical rhythms.

A second explanation could be attributed to student perception of meter. The fact that prosodic-dominated groups experienced difficulty transcribing their prosodic creations into musical rhythms may reinforce Colley's (1985) suggestion that a shortcoming of the Kodaly system of rhythmic notation is that it does not necessarily reflect meter. While most students experienced little difficulty creating a correspondence

between the syllabic values of prosodic creations and their representation in musical rhythm, the process of fitting these completed text-set musical rhythms into the metric structure caused pervasive problems. Colley further suggested that the "Word" approach to learning rhythm was more effective than the Kodaly method for "improving dictation skills" and "improving performance skills" (pp. 232-233). Colley's finding supports the pervasive tendency towards the use of prosodic composing strategies that emerged in this study and may also explain the fact that prosodic compositions tended to feature more sophisticated phrasal development.

The student problems reflecting musical meter may further reflect research by Bamberger (1991) regarding perception of rhythm and meter. According to Bamberger's research findings, some students perceived rhythm as figural groupings of rhythmic "performed events" (p. 58). Others perceived rhythm in terms of the metric duration of beats. It is possible that the dialectical relationship between phrase development and metric perception observed in this study may have been a byproduct of the conflict posed by the manifestation of the two forms of rhythmic perception described by Bamberger. Reflecting upon the composing behaviour of Freddie for example, it seems probable that he was perceiving rhythm in a figural manner. It seemed that Freddie perceived prosodic rhythm as groups of rhythmic events. It also seems apparent that Freddie's figural focus prevented him from incorporating metric considerations into his composing process until week 7. As Bamberger suggested that both children and adults "hold tenaciously" to their respective modes of rhythmic perception (figural vs. metric), experiencing perceptual confusion when attempting to perceive the mode of perception that is not natural to them,

it is certainly plausible to surmise that such conflicting forms of rhythmic perception may have contributed to the dialectical relationship.

A third possible explanation for the emergence of the dialectical relationship may be found in one of the "other themes" identified during week 3. During week 3, it became apparent that some students were experiencing difficulties decoding the syllabic content of words. Specifically, such students were confusing phonemes and syllables. As a result, these students were creating mismatches between the words they chose and the musical rhythms they created to represent them. While this phenomenon did not appear to be demonstrated by students in Case 1 or Case 2, it seems possible that some instances of the emergence of the dialectical relationship described above may have been caused by syllabic decoding difficulties. Further, video footage documented details of composing behaviour in Case 1 that I had not observed through journal observation and composition analysis alone, suggesting the possibility that the above phenomenon may have exerted an influence upon composing behaviour that I did not notice.

The influence of leadership roles upon group composing strategy.

During my observations of the composing processes within both case groups, it became apparent that leadership roles strongly influenced the composing strategy adopted by the composing group as a whole. Data from the research journal, student compositions, videotapes, and student interviews revealed that the composing profile and composing process exhibited by the leader of each group tended to become the overall composing strategy employed by the group. The extent to which leadership roles were well-defined within the groups was reflected in the degree of clarity demonstrated in the chosen group composing strategy and consequently the characteristics of the completed

student compositions. In this sense the influence of leadership upon group composing process provided insight into all three of the research questions. With respect to question 1, the influence of leadership had a direct bearing upon the composing strategy adopted by each group. Regarding research question 2, the extent to which one of the dominant composing two strategies (prosodic or musical) dominated within the composing process was determined by the corresponding influence of composing strategy endorsed by group leaders. In Case 1, Warren emerged as a leader who, with the collaboration of Simon and Alice, used integrated strategies to lead group composing process. Similarly, Case 2 group composing behaviour was guided by Mary-Ann, who emerged as a leader during weeks 6 and 7 using music-dominated strategies. Relating to research question 3, group interaction influenced the adoption of group composing strategy to the extent that it served to either reinforce or challenge composing strategies promoted by members campaigning for positions of power within the composing groups. In Case 1, it seemed that Simon, Alice and eventually even Freddie adopted the integrated approach introduced by Warren. In Case 2, both Steven and Julie appeared to adopt the music-dominated strategies introduced by Mary-Ann.

I identified and designated names for three models of group leadership roles that were exhibited within the respective composing groups: *authoritarian*, *dual*, and *collective*. While both groups exhibited a clear orientation toward a specific leadership model, instances of a combination of the three were periodically documented. In the following section, examples from each case are used to illustrate the three leadership models. Subsequently the manner through which leadership roles were established will be

examined. Finally the influence of leadership roles is examined within the context of research presented in Chapter 2 regarding cooperative learning and group dynamics.

Authoritarian leadership was the term I created to describe composing behaviour that was characterized by a preoccupation with a particular composing strategy. During demonstration of authoritative leadership, leaders campaigned vigorously for group acceptance of their preferred composing strategy. Brief episodes of authoritative leadership were observed in the composing behaviour of Freddie (Case 1), and to a lesser extent Mary-Ann (Case 2). Throughout weeks 4 to 7 Freddie frequently attempted to promote his exclusively prosodic approach. Warren's presence as an integrative leader and the combined integrative profiles of Simon and Alice prevented Freddie's attempts at gaining group acceptance of his prosodic approach from having any lasting power. Mary-Ann's use of authoritative power was much more subtle. Her constant use of musical performance strategies throughout weeks 4 to 7 provided support for her preoccupation with musical performance strategies. Mary-Ann's use of authoritative power had a lasting effect upon group process, as the group seemed to benefit from the audible presence of Mary-Ann's clapped musical rhythms. Her performance strategy seemed to help students match musical and prosodic rhythm more clearly and to deter the development of prosodic phrasal development.

Dual leadership was the term I used to describe composing that featured a clear collaboration between two distinctive composers. Dual leadership was demonstrated within the group composing processes of both Case 1 and Case 2. Observations of Case 1 revealed that leadership shifted alternately between Freddie and Warren. When under the sway of Warren's leadership, the ideas contributed by the other members of the group

were given more attention. Warren's integrative composing profile was reflected in his acceptance, encouragement and incorporation of ideas suggested by other group members. In contrast, when the group was under the influence of Freddie's leadership, group composing process tended to feature frequent incidents of conflict.

Observations of Case 2 suggested a working collaboration between Steven and Mary-Ann. While early composing process demonstrated by Case 2 disclosed frequent conflict between Steven and Mary-Ann, as the study progressed the group appeared to assimilate Mary-Ann's musical strategy of composing preserving musical rhythms, subsequently matching alternating gender-based prosodic content to match pre-established musical rhythms. In this sense Mary-Ann's leadership ultimately determined the dominant group composing process.

Collective leadership was the term I created to describe instances when group decisions were collaborated upon and arrived at collectively. A review of video footage of Case 1 during weeks 6 and 7 demonstrated that both Simon and Alice played significant supportive roles in developing the ideas put forth by both Freddie and Warren. During the instances when Simon's and Alice's ideas were incorporated into the group's compositions, collective leadership was judged to be taking place. There was insufficient data to determine the exact manner through which collective leadership influenced composing behaviour of Case 2. However, journal observations, composition analysis, and video footage revealed that Case 2 somehow managed to achieve a gender-based division of prosodic composition. I suspect that the achievement of this agreement within group members involved collective leadership.

As leadership roles played a dominant role in determining group composing processes, I examined various methods through which leaders acquired their status within the groups. Observations indicated that leadership roles were acquired by group members through the clear demonstration of a specific performance strategy, the ability to effectively resolve conflict, and the influence of gender differences.

The most pervasive and powerful method through which members acquired a leadership role was the clear demonstration of a performance strategy. Examples of observed performance strategies included hand clapping of musical rhythms while composing prosodic rhythms (musical strategy), persistent chanting of prosodic rhythms (prosodic strategy), manipulation of rhythmic symbols on the composing board (musical strategy), generation of prosodic themes and vocabulary (through brainstorming), and verbal experimentation with phrase development (both). The level of sophistication of the demonstration of performance strategies directly affected the strength of the power of leadership. In Case 1, Freddie's persistent loud chanting of his prosodic creations played an influential role in determining his brief sojourns as group leader. (His persistent chanting was loud enough that I imagine it prevented the other group members from being creative and it is very possible that they adopted his suggestions just to make him stop chanting!) In Case 2, Mary-Ann made consistent use of hand-clapping to catapult her into a leadership role. Consistently, while the group was experimenting with prosodic possibilities, Mary-Ann clapped the musical rhythm simultaneously, ensuring that the musical rhythm was always present in the ears of all group members.

The extent to which leaders were seen by the group to have an ability to resolve conflict proved to be a factor determining leadership. An example of the use of conflict

resolution was demonstrated in the composing behaviour of Freddie in Case 1. By insisting that penguins do not live in the North Pole, Freddie was capable of thwarting Simon's suggestions and petitioning for the support of both Warren and Alice. Conflict resolution was also employed by this group's members to either shift or check the power of leadership. By making use of his integrated composing strategies, Warren was capable of pointing out to the group that there was a disconnection between Freddie's prosodic creations and their representation in musical rhythm. In doing so, Warren shifted himself back into a leadership role. The shifting negotiation for power between Warren and Freddie was characteristic of Case 1.

In Case 2 conflict was resolved in a much more subtle manner. While insufficient data existed to determine the exact manner through which group members achieved the gender-based division of prosodic composing, the presence of this phenomenon was notable. The high degree of repetition noted in the musical compositions created by the group during weeks 4 to 7 suggested that it was possible that Mary-Ann was generating musical rhythms she was capable of performing simultaneously throughout the process of prosodic composing. In this manner it was possible for Mary-Ann to use musical strategies to ensure the dominance of musical rhythm in the text-setting process. Thus, Mary-Ann was capable of dissipating group conflict by providing a venue for the prosodic offerings of other members of the group while at the same time manifesting the dominance of her preferred strategy.

It is possible that the presence of Freddie's prosodic-dominated approach in Case 1 may have played a role in polarizing individual strategies and as a result prolonging the presence of conflict within the group composing process. In contrast it was apparent

during week 5 that Steven was capable of perceiving mismatches between word and musical rhythms suggesting that he was capable of integrated reasoning. It is possible that because Steven and Julie appeared to be capable of integrated reasoning that there was less resistance in Case 2 to the prospect of using musical strategies than there was in Case 1. As has been previously discussed in the discussion of overall group processes above, it is possible that increased social skills training within composing groups may have helped students better facilitate conflict management.

In Case 2, gender differences had a determining effect upon the establishment of leadership roles. It became apparent during the early stages of the group's composing efforts that there was persistent conflict between Steven and Mary-Ann. A review of the videotape footage revealed that much of this conflict was derived from dissatisfaction on the part of the boys towards prosodic content generated by the girls and vice-versa. Eventually the group generated a pragmatic solution of evenly dividing and alternating "boy" content and "girl" content. As a result, the group proceeded from the outset of this resolution happily composing within their boy/girl, girl/boy division of labour. However, as noted above, the generation of gender-based prosodic content consistently remained subordinant to the pre-established musical rhythm.

Each of the above strategies was instrumental to the acquisition of power within composing groups. Each strategy of acquiring power was influential to the degree that it determined the manner through which students made use of prosodic and musical rhythm, the extent to which one strategy (prosodic or musical) dominated, and the extent to which group interaction reflected the power of leadership. As the extent to which group interaction assimilated and reinforced leadership trends was perceived as being

influential, I now re-examine the findings with regards to leadership and group interaction within the context of literature presented in Chapter 2.

Several aspects of research conducted by Cohen (1994) are relevant to the emergence of leadership roles described in Chapter 4. Cohen considered composition an "ill-structured problem" as it demands of its participants the generation of open-ended creative solutions (p. 8). Cohen suggested that when cooperative groups are engaged in the process of producing solutions to ill-structured problems, "interaction is vital to productivity" (p. 8). This statement speaks directly to the third of my research questions: to determine the manner through which group membership influenced the interaction between prosodic and musical composing processes. It is possible that the inequity between group member participation (particularly in Case 2) influenced the adoption of composing strategies. As group interaction was often dominated by leaders, some of whom possessed inferior composing ability to the other group members who were less interactive within the composing process, it is possible that uneven interaction contributed to leadership power. By extension, such uneven participation may have provided further impetus for the adoption of the composing strategies employed by leaders.

According to Cohen (1994), cooperative groups will be successful only if all of the members of the group perceive that each member of the group contributes to his/her potential. As group interaction within the composing groups of my study was by no means unanimous, it is possible that "positive goal interdependence" was not achieved (p. 12). On the contrary, in Case 2, it is likely that group members felt pressured to

compensate for the infrequent contribution of Julie and utter lack of contribution on the part of Michael.

Finally, Cohen (1994) maintained that leadership roles that are established within cooperative groups may not be derived from the immediate group task. Cohen noted that leadership status can be derived from academic ability associated with other disciplines or through "peer status" (p. 23). These findings may explain in part why certain students with inferior capabilities as composers in my study were occasionally placed temporarily into leadership roles. Although both Freddie and Steven were preoccupied with a predominantly prosodic approach, their brief instances of leadership may well have been supplemented by the fact that both boys were obviously popular within their groups. It is noteworthy that, with the possible exception of Warren, all of the students who took on leadership roles within the whole class instruction and within the composing groups were popular and well-liked by fellow group members. It is also possible that student perception of the academic status or peer status influenced the establishment of leadership roles.

Differing modes of rhythmic perception.

Through a review of the group composing processes described in Chapter 4, a discrepancy was observed between student perception of rhythm during the assembly process and the final performance of student rhythm compositions. The observation of the above discrepancy rendered further information regarding the manner through which students combined prosodic and musical rhythm in their compositions, instances of the domination of one strategy to the detriment of the other, and the manner through which group interaction affected these changes.

While it is not possible to determine the exact reason for the observed discrepancies between rhythmic perception during composition assembly and performance, a review of all sources of data as well as a re-examination of literature reviewed in Chapter 2 informed the generation of the following hypotheses. One possible reason for the fact that students seemed to demonstrate an ability to integrate prosodic and musical rhythm during the assembly process while not reflecting the fusion of the two during performance, can be found in the findings of Gerard and Auxiette (1992). Gerard and Auxiette found that "the coordination between spoken and musical strings" implied "two processing systems, one for speech prosody and the other for musical rhythm" (p. 102). They further suggested that while these two systems were integrated in the interpretation of musical and language rhythm, one of the two strings of processing would invariably dominate in the process of generating a rhythm. Finally, the authors observed that for children who had received musical training, the "temporal parameters of music" were seen to be dominant over the "temporal parameters of speech" as they were "less flexible" (p. 102). It is therefore possible that during the assembly process of group rhythms, which often proceeded in fragments outside the confines of structured meter, that students were capable of completing their rhythms using one strategy at a time. In this sense the students' use of prosodic and musical rhythm during the assembly process of composing may have been mutually supportive in a parallel sense but not truly coordinated. In contrast, during the performance of the completed rhythms that took place within the confines of structured meter, it seems that students would need to integrate the two processes simultaneously in real time. A review of the videotapes indicated that the performance of completed rhythms tended to reflect prosodic tendencies of group

composing to the detriment of musical rhythmic settings of group compositions. The fact that students consistently demonstrated a performance trend towards reflecting prosodic settings over musical rhythmic settings reinforces the suggestion by Gerard and Auxiette that one or the other string would dominate in the rhythmic composing process. However, the fact that the prosodic string appeared to dominate differs from Gerard and Auxiette's findings as they suggested that compositions completed by students with previous musical training would be musically dominated. A possible reason for this deviation in my study could be that the Grade 2 students did not yet have enough experience manipulating musical rhythm to reflect the tendency observed by Gerard and Auxiette. It is possible that increased familiarity with the use of musical performance strategies may have led to a higher degree of integration in the performance of completed text set rhythms. It is interesting to note that the successful representation of the musical rhythm and meter that was observed during the Case 2 performance of the week 6 composition seemed to have been made possible through the use of musical performance strategies on the part of Mary-Ann at every stage of the development of the group rhythm. An extension to this possibility would be the logical premise that for students with little musical experience, the prosodic string, rather than the musical string, would be more flexible, a factor contributing to its dominance.

As previously established, children possess the ability to perceive phrases and word boundaries from infancy onwards (Bergeson & Trehub, 2006; Boisen, 1981; Hansen, Bernstorf, & Stuber, 2007; Nketia, 2002; Patel, 2003; Saffran, 2003; Schreiber, 1991). As the Grade 2 students would have had much more experience perceiving and transcribing prosodic rhythm than they would have processing musical rhythm, it seems

logical that this string would dominate in the rhythmic composing process. As demonstrated in the composing behaviour of Freddie (Case 1) and to a certain extent Steven (Case 2), students were capable of generating sophisticated fully-formed prosodic phrases that the groups had difficulty representing in musical rhythm. While my role during the composing sessions was to remain objective, allowing the students to resolve their composing problems using their own group resources, it seems to me that the above discrepancy of rhythmic perception would indicate that student dexterity composing with prosodic rhythm could be harnessed by music teachers through strategic interventions as a method of locating difficulties with the perception of musical rhythm. My observation was that students experiencing creative impasses were highly motivated to decode the musical rhythmic solution to retaining their original prosodic creations. Through strategic teacher intervention, the location of prosodic composing strength within integrated composing projects could serve as an intrinsic source of motivation and as a guide to locating jump-off points for further musical rhythmic instruction.

It is possible that student difficulty representing musical rhythm in the performance of their completed rhythms may have been the byproduct of the two forms of rhythmic perception identified by Bamberger (1991). Bamberger noted that children and adults alike tended to focus on either motivic or metric features of rhythm. It seems possible that students who focused upon the rhythmic groupings of “performed events” may have had difficulty perceiving metric parameters due to their motivic rhythmic perceptual orientation.

A final observation that may have contributed to the discrepancy between rhythmic perception during the assembly and performance of group rhythms is that many

prosodic-dominated composers in their enthusiasm were persistent and loud. It is possible that the enthusiasm and persistence of such composers may have influenced group choices to the detriment of musical considerations.

Ambiguity of future preferred composing strategy.

Analysis of the student interviews revealed that an ambiguity regarding future preferred composing strategy seemed to exist within both Case groups in the study. Although Warren, Simon, and Alice consistently demonstrated integrated composing strategies, all Case I students indicated that their future preference would be to compose using words. Similarly, while the overall group composing process adopted by Case II was music-dominated, 2 out of 4 Case II students stated that they would begin composing future rhythmic compositions using prosodic rhythm. This finding produced further information regarding my third research question. While in this study, the two case groups exhibited the adoption of integrative and musical group composing strategies respectively, the above ambiguity seemed to suggest that individual preference of composing strategies in future projects may not be the same as those demonstrated within the context of this study.

Summary

In this chapter, I presented a cross-case analysis and discussed the overall group composing processes and dominant composing trends that emerged from this study within the context of the research questions presented in Chapter 1 and the literature reviewed in Chapter 2. In the final chapter, I explore the implications of these trends with regard to the integration of language and music within composition projects and conclude with implications for future research and closing remarks.

CHAPTER SIX

Conclusions and Implications for Future Study

Having discussed the overall group composing processes and the four dominant composing trends that have emerged from this study in Chapter 5, this chapter examines the implications of these group processes and trends with regard to the integration of both music and language within composition projects. I acknowledge that these implications are based on eight Grade 2 students, but I believe that these recommendations merit consideration for future study.

Group Composing Processes

As was discussed in Chapter 5, the absence of research regarding the influence of cooperative learning upon the specific context of music composition as well as insight derived from research regarding the nature of teaching and learning music composition motivated me to make some decisions that diverged from recommendations made in research associated with cooperative learning in other subject areas. While much of the extant research regarding cooperative learning advocates the assignment of individual roles, I decided not to assign such individual roles rationalizing that such roles might interfere with the emergence of individual composing voices. Although there was insufficient data to establish conclusively to what extent this decision influenced composing behaviour, it seemed that the emergence of individual composing strategies was influential in the determination of leadership roles and consequently adopted group processes. Also diverging from research regarding the influence of cooperative learning upon subject areas other than music, was the observation that the assignment of group composing roles appeared to have little or no effect upon the adopted group composing

processes. In contrast, confirming research regarding cooperative learning in subject areas other than music, observations of social interaction within the composing groups seemed to suggest that students would have benefited from more training and practice of social skills such as conflict management, and more time to assess group performance outside the composing itself. While the composing behaviour exhibited by the eight students in this study were specific to the present context, the above observations seem to indicate that further research regarding the influence of cooperative learning within the context of music composition projects is warranted.

A Dialectical Relationship Between Phrase Development and Meter

One of the central observations of this study was that there was a dialectical relationship between phrase development and conception of meter depending upon student choice of composing strategy. Instances of group composing featuring the use of predominantly prosodic rhythm produced compositions consisting of fully-formed prosodic phrases and weak metric consistency. In contrast, instances of group composing featuring the use of predominantly musical strategies produced compositions consisting of strong metric consistency and weak prosodic phrasal development.

The above finding has implications for the integration of both music and language within composition projects. Potential seems to have emerged to identify strengths and to develop weaknesses with regards to these respective strategies. In particular it was evident that children who created highly sophisticated fully-formed prosodic phrases were highly motivated to learn how to represent their prosodic creations accurately in musical rhythm. Through teacher observation, these junctures within the composing process could serve as ideal opportunities for teacher intervention, allowing the teacher

an opportunity to further expand both prosodic and musical rhythmic understanding within the context of an original student rhythm. Through teacher interventions, transcription of student prosodic phrases into musical rhythm could serve as vehicles for teaching phrase development in music. This approach would further encourage students to think like composers, initiating students to the exciting prospect that they have just as much potential to express their own creative phrases in music as they do within language. Teacher intervention could also facilitate aspects of language development. For example, by identifying student difficulties with syllabic identification, teachers could develop language skills within a novel context. Further, by adding the parameter of meter to the potential of language development, students could be initiated to the skill set which generates forms of poetry, lyric-writing, opera, rap, chanting, and singing.

Leadership Roles

A second theme of this study was a direct relationship between the composing profiles and processes of leaders and the composing profiles and processes adopted by the student groups. Further, it appeared that the model of leadership assumed by group leaders was seen to reflect the degree of composing versatility demonstrated by the leader. In the case of Freddie, for example, predisposition towards one particular mode of composing (prosodic) was reflected in his authoritarian leadership model. Conversely, integrated composers were less restricted in their leadership style. Integrated leaders like Warren welcomed suggestions from group members, fluidly assimilating both prosodic and musical rhythmic ideas.

An important implication for both music and language composing projects is that leadership roles are not always indicators of highly developed and versatile composing

strategies. Indeed, some students will acquire leadership roles through their limitations as composers. The persistence through which certain students in the present study campaigned for their preferred strategy of composing appeared to be an influential factor determining leadership. It is quite possible that students who possessed strengths in only one method of composing were adamant about motivating the group to adopt their chosen method of composing due to discomfort or lack of confidence with use of the other method.

Leadership roles were sometimes observed to be indicators of strength in one composing strategy to the detriment of the other. As the data indicated that some leaders were preoccupied with a particular strategy, it would seem that leadership roles could prove to be useful to teachers teaching group composition. Through careful observation of students in leadership roles it is possible that teachers could identify both the respective strengths offered to the group by such students and the extent to which composer bias is superimposed upon the group by authoritarian leaders. In this way, teachers could possibly use their observations of the development of leadership and of group composing profiles as indicators of what is missing within the integration of the two strategies. Through direct interventions intended to support the interjection of marginalized composing strategy, teachers may succeed in elevating the level of integration between prosodic and musical composing strategies within composing groups, thereby rendering the process more mutually beneficial to both music and language education.

Differing Modes of Rhythmic Perception

A third theme of this study was the observation that children seemed to perceive rhythm differently depending upon which specific composing task they were involved in. While assembling rhythms devoid of the confinements of meter, children effectively fused the syllabic duration of prosodic rhythm with musical rhythmic values with relative ease. However, while performing complete text-set rhythms within the parameters of meter, prosodic inclinations predominantly prevailed over musical rhythmic considerations. Reflecting on the findings of Gerard and Auxiette (1992), it is possible that one stream of neural activity may have dominated when both forms of neural activity were coordinated within the structure of meter.

This finding has significant implications for the integration of music and language within composing projects. During the assembly process of composing, children seemed to demonstrate that they were capable of identifying the prosodic values of syllabic duration accurately and representing them in musical rhythm. Moreover, some children seemed to have learned that there was more than one way of representing prosodic content in musical rhythm (lengthening and shortening of musical rhythmic values). These observations might indicate that during the assembly process of composing rhythms, children may be making effective use of both phonological and musical auditory decoding strategies to complete their rhythms.

The fact that the students experienced difficulty representing their notated completed rhythms when asked to perform them in metered time would suggest that the further development of student conceptions of meter may contribute to closer integration of prosodic and musical rhythm in student compositions. Consequently it seems apparent

that further exploration of the integration of language and meter through the composition of poetry, song lyrics, limericks, and metered exploration of prosodic rhythm and phonological content in general may facilitate this development.

Ambiguity of Future Preferred Composing Strategy

One of the interesting observations that emerged from this study was that 6 out the 8 students who participated stated during the student interviews that they would choose to compose with a strategy in the future that differed from the group processes adopted. In Case 1, while the group composing process was predominantly integrated, all four students stated that they would prefer to compose using prosodic rhythm in the future. Similarly, in Case 2 although the group composing was music-dominated, both Steven and Julie said that they would prefer to compose using word rhythm in the future. These responses seemed to suggest that future composing behaviour would deviate from that which was observed in this study. The presence of this ambiguity seemed to indicate that further research regarding composing behaviour within small groups is required.

Implications for Further Study

Given the fact that leaders within the composing groups were seen to exert a profound influence upon group composing process and ultimately the finished compositions themselves, further research investigating the influence of cooperative learning upon the emergence of leadership roles within composing groups would be beneficial.

One of the outcomes of this study was that it seemed apparent that there was a dialectical relationship between phrase development and conception of meter depending upon student choice of composing strategy. I believe that this finding would have been

quite different if my students had had more experience perceiving, reading, manipulating, and composing musical rhythm. It would be very interesting to replicate this study using older students and explore whether increased familiarity with musical rhythm and meter would alter any of the dominant trends that emerged in this study.

As the development of a more sophisticated conception of meter emerged as a possible means of facilitating closer integration between the processing of prosodic and musical rhythm within composition projects, future research into the nature of child perception of meter would be beneficial. One of the regrets that I had about my study is that, due to time restraints, the Grade 2 students were not afforded the same opportunity for natural play with their thematic context as were both Bill and Carlos, the two preschool children who inspired this research. It was my observation that interaction with the live setting of thematic context propelled both Bill and Carlos into an establishment of meter. It was precisely the playful marching through the water in the wading pool that led to the emergence of Bill's and Carlos' conception of meter. Perhaps through the incorporation of thematic field trips into composition projects, students could be given an opportunity for the same form of natural improvisation and movement through play that was observed in the composing behaviour of Bill and Carlos. It is possible that this addition to composing projects could lead to the natural establishment of meter within compositions.

Finally**,** many questions remain as to how musicians combine prosodic and musical rhythm within composition. As neurological studies more accurately delineate neural activity, it would be interesting to further examine how songs are created. Through an integration of ongoing neurological research results and a comprehensive survey of

song-writing processes employed by composers, poets, librettists, and song-writers across a spectrum of ages, it may be possible to further elucidate this mysterious process.

Shortcomings and Researcher Bias

Video footage of student composing was filmed only during weeks 6 and 7. In retrospect, this decision proved to be a shortcoming of my study. During week 6 it became apparent that the video footage rendered significant further detail which would not have emerged by means of the group composing template sheets and the journal entries alone. It is probable that much more detailed data would have been obtained if I had videotaped each class (weeks 1-3) and each group's composing process (weeks 4-7) during the entire time. Further it becomes apparent in hindsight that the fact that I filmed each group myself may have led to further missed detail. As I moved from one group to another, it is possible that composing detail may have transpired which I did not capture on film. While I tried to allot an equal amount of filming time to each composing group, it is possible that my own determination of what was significant composing behaviour may have biased the video data collected.

It becomes apparent in retrospect that I should have videotaped the student interviews which took place during week 8. This further information would have provided an added source of data with which I could have reviewed the interviews. In addition, more time should have been allotted for the student interviews. For example, while the students from Case 1 were provided with ample time to answer all of the interview questions, the time restraints described above prevented Case 2 students from answering every question. As a result only the student responses to questions that both Case study groups answered (questions #1, 2, & 7) were considered in the completion of

the thesis. More points of comparison would have been generated had all groups been given ample time to answer all questions.

Conclusion

In conclusion, I would like to travel back in time to the poolside where this study began, where I observed the marvel of two preschool children, Bill and Carlos**,** as they spontaneously composed fully-formed prosodic rhythmic phrases in the water. Years of observation of the composing tendencies of elementary school children subsequent to my afternoon with Bill and Carlos led me to observe that elementary school children seemed to reverse the process I had observed in Bill and Carlos' composing. I began this study questioning how Grade 2 students combine prosodic and musical rhythm in their compositions.

Reflecting on the manner through which Bill led Carlos through their composing process, a central observation of this study has been that virtually all of the group composing behaviour observed was influenced by leadership roles. In each group, the composing strategy employed by the functional leader of the group was adopted by the group. Models of leadership reflected the level of composing versatility on the part of group leaders.

By examining the composing processes of children who have had some initial musical rhythmic instruction, it has been possible to distinguish some aspects of composing process that were not possible to detect in Bill and Carlos' composing process. Perhaps the dialectical relationship that was observed during this study between prosodic phrasal sophistication and musical metric consistency could prove to be mutually beneficial to both language and music education. The differing modes of

rhythmic perception that were identified within this study suggest that the eight Grade 2 students perceived rhythm differently during the assembly and performance processes of composing. The observation of this discrepancy indicates the need for further inquiry into the significance of meter throughout the composing process.

While this concluding chapter has suggested that each of the four dominant composing trends presents potential for further integration of prosodic and musical rhythmic perception though the further development of cross-curricular (language and music) composing projects, one of the most important findings of this study relates to student motivation. Through combining a skill set with which students were familiar and confident (prosodic composing) with something that was less familiar (composing musical rhythm), the students had a lot of fun and were highly motivated to learn to represent their prosodic rhythms in musical rhythm. It was evident that students became passionately interested in expressing themselves in musical rhythm when motivated to transcribe their own creations and ideas.

A final observation that was evident within both case groups was that students were highly motivated to represent their prosodic rhythms in musical rhythm. Once students had conceived of a particular fully formed prosodic rhythm, they were very reluctant to abandon or revise it. Reluctance to abandon prosodic choices was observed in the composing behaviour of Freddie who was particularly attached to his impressive catch words such as “Hieroglyphics.” In Case 2 the partiality demonstrated by both Mary-Ann and Steven towards girl and boy generated prosodic content respectively led to gender conflicts.

At the conclusion of this study it seems that most of the eight Grade 2 students possessed an “inner-Dr. Seuss” of sorts. Many of the students were quite sophisticated composers of prosodic rhythmic phrases. What remains missing is the further development of an integrated cross-curricular language arts and music composing unit to develop the learning potential identified within this study. What would happen if phonological and musical rhythmic development spawned not from the child’s consumption of works of art created by adults but from teacher interventions arrived at through works created by the children themselves? It seems to me that a cross-curricular learning potential exists here waiting to be further explored. The dominant observations of this study suggest that the Grade 2 students were capable of generating rich language and music learning opportunities from the inside-out.

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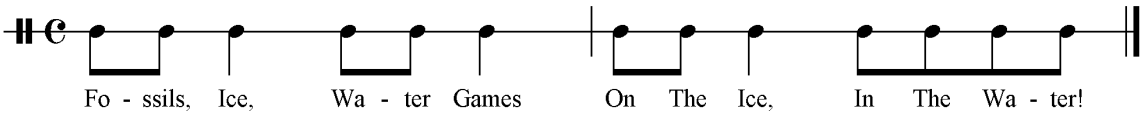
APPENDIX A – COMPOSING TEMPLATE SHEET

Date: _____

Group #1:

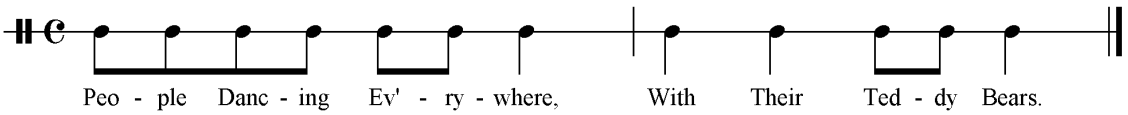
Freddie
Warren
Simon
Alice



Word Bank: Sand, Ice, Games, Fossils, Egypt, Giraffe, Water

Group #2

Mary-Ann
Steven
Julie
Michael



Theme: Playground

Word bank: Teddy-Bears, Slide, Swing, Jungle-Gym, Monkey Bars, Play, People, Go-Down, Cars, Dolls, Sand, In-The-Air, Birds, Music, Dancing

APPENDIX B – INTERVIEW QUESTIONS

1. Can you please describe for me how you completed your rhythm?

2. During the past eight weeks we have been learning to compose rhythms using the rhythms of words and musical rhythm. Which approach working with word rhythm, or working with musical rhythm did you find most helpful when you were composing your rhythm? If one approach was more helpful please explain how.

3. What have you learned about rhythm? What have you learned about composing rhythm?

4. In what ways do you think the rhythm in language and the rhythm in music are similar? In what ways are they different?

5. Do you think that learning about rhythm in language has helped you understand musical rhythm? If so, how?

6. Do you think that learning about musical rhythm has helped you understand more about the rhythm in language? If so, how?

7. If you could choose to compose another rhythm using word rhythm or musical rhythm which would you choose? Why?

ENDNOTES

[1] By audiation, Kratus refers to the degree to which children can perceive of the sound music will make without having it physically present. In other words the extent to which children can internalize how music will sound without having to hear it. Kratus' examination of audiation within composing process is based upon the original concept of audiation developed by Gordon (2003).

[2] "Electro and magnetoencephalographic" measurements are derived by researchers who attach electrodes to the human scalp to measure neural brain activity. Within this particular context researchers have measured brain activity associated with both musical and language activity in order to isolate and identify neural resources processes used to process each.

[3] Gordon suggests that perception of meter is subjective. According to Gordon a person's perception of meter is dependent upon how they hear microbeats and macrobeats. For example, Gordon provides the example of the prosodic phrase "Happy and good is the funny old clown" (2003, p. 19). Gordon suggests that those who perceive four dominant beats (macrobeats) are perceiving the phrase in "usual triple meter, because the macrobeats are divided into three small beats (microbeats)" (p. 19). Contrarily Gordon suggests that another person may perceive the same phrase as containing two dominant beats (macrobeats), in which case the person would be perceiving the phrase "in duple meter, dividing the macrobeats into two small microbeats" (p. 19).

[4] In this context mnemonics refer to the development of a system of phonetic sounds to represent specific musical rhythmic values.

[5] In this context the traditional method referred to strategies of teaching rhythm that did not make use of a speech-cue method (as employed in Kodaly and Orff).

[6] Italics by London.

[7] Italics by Stake.

[8] Twenty-one students had permission to participate in the study. There were nine composing groups in total. Only two of the composing groups were comprised completely of students who had permission to participate in the study.

[9] In consultation with classroom teachers, I assembled the composing groups myself. A number of factors were considered in the formation of the groups including quality of previous involvement in other music related activities, gender, and student behaviour. An effort was made to combine an even distribution of students who had demonstrated high and low involvement in previous other music related activities in each group. While it was impossible to have an even number of boys and girls in each group due to the fact the there were more boys in both classes (Class 1: 11 boys, 6 girls; Class 2: 11 boys, 9 girls), I made sure that every group contained at least one female student. Classroom teachers were consulted regarding student behaviour in other contexts.

[10] Text-Setting refers to the process of matching specific elements of word rhythms with corresponding representation in musical rhythm. This process is dual-directional in that prosodic rhythms can be modified to accommodate musical rhythms, or musical rhythm can be modified to accommodate word rhythm. Text setting is a central component within my study as it can reflect the dominance of one or the other composing process (word to music , or music to word).

[11] Although students had had limited exposure to sixteenth notes in class before, the inclusion of sixteenth notes within the context of composing was new.

[12] Sixteenth notes were made available to students if they needed them on a request basis. There were very few instances of students requesting sixteenth notes.

[13] As previously mentioned, grade two students at Cote St. Luc school begin reading and writing in French. I had to function as scribe, writing down the words that the children created and recording exactly how they set their words to musical rhythm as I circulated from group to group. In order to provide an opportunity to verify that I had recorded exactly what the children had created accurately, I videotaped my own performance as a scribe. Although this process occasionally interrupted the flow of the composing process, I deemed it sufficiently important to make sure I had recorded the rhythms accurately to justify the intrusion.

[14] After the study was completed Michael was diagnosed with a hearing impairment.

[15] Prosodic-dominated, integrated, and music-dominated are terms that I created to describe composing behaviour observed during the study.