Reflection-in-action in beginning band settings: a case study of a student conductor

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TABLE OF CONTENTS

TABLE OF FIGURES

CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY

Part One: The art and discipline of conducting

> A conductor must . . . have a mind trained to work as fast as lightning and a thousand times more continuously.
>
> Elizabeth Green

Music education undergraduates learn about the art and the discipline of conducting/teaching in the 'virtual' world of the practicum. They learn to prepare for their practicums by analyzing the musical materials, formulating rehearsal goals, and building in their minds an 'ideal' of the musical texts they are going to use. At the same time, they consider how they are going to elicit these 'ideal' sounds from the performers.

Using the 'ideal' sounds as a reference point with which to compare the 'real' sounds of rehearsal, the conductors teach the players how to perform the music. During rehearsals, conductors continuously analyze, evaluate, and respond to the 'real' sounds as they unfold, and their responses direct their subsequent actions. This fusion of thought and action, or of 'thinking about what they are doing while they are doing it', is a process which Donald Schön (1983, 1987) asserts is characteristic of all professional practice. He calls the process reflection-in-action.

This study seeks insights into the nature of creative thinking as exhibited by music undergraduates as they learn the professional practice of conducting/teaching in beginning band settings. From the data of transcribed videotaped practicums, it explores one student's processes of reflection-in-action. It locates the practicum site, and describes the features of the setting, and it proposes a scheme for analyzing the transcripts. Through an interpretation of the student's language, gestures, and rehearsal procedures, it will describe how he elicits musical expression from the players.

Need for the study

Research studies in beginning conducting pedagogy in the period 1965-1987 (Grashel, 1987) have adopted positivist research approaches, emphasizing skills acquisition, cause-and effect relationships, and the measurement and categorization of competencies, skills and behaviours. These aspects of conducting have now been well documented.

For many years, researchers (Bowman, 1982; Jorgensen, 1977) have spoken of the need for a theoretical base in music education, which is grounded in music pedagogy, and which is not derived from positivist epistemological assumptions. This points to the need for research which seeks insights into social processes, the musical imagination, and the phenomena of personal knowledge. A qualitative study offers the possibilities of gaining (a) increased understanding of the multi-dimensional features of music education settings; (b) insights into creative processes in music education, (c) understandings of the processes by which music education undergraduates come to learn the features of a professional practice. The benefits flowing from such a study are likely to lead to new perspectives on teacher education and to contribute to the development of music education theory. This study will demonstrate the usefulness of participant observation as a research methodology, and the value of using a qualitative approach to examine the research issues raised.

Background to the study

Making music in an ensemble setting is about art, and discipline, and about collaboration. It is an activity of the utmost complexity, having many dimensions which interweave, overlap and are interdependent. It involves the evocation of musical meaning from notated symbols by a group of musicians, under the artistic vision and guidance of a conductor. The conductor does not produce any of the sounds, but is responsible for

persuading an assortment of individual players to perform the music in a particular way. The task of conductors, then, is to bring a text to life through, and with, others.

The creation process is started by the composer or arranger, whose musical ideas are expressed through the manipulation of pitch, duration, volume, tone colour, style and form, and represented by a system of written symbols we know as music notation. Once the notation is written down, it remains for the performers to bring the text to life. Aaron Copland (1959) talks about the role of the interpreter,

> ". . .honesty compels me to admit that the written page is only an approximation. . .an indication of how close the composer was able to come in transcribing his exact thoughts on paper. Beyond that the interpreter is on his own." (p.59)

Conductors interpret the notation, but they do not "do it" on their own. Richard Bradshaw, recently appointed musical director of the Canadian Opera Company, acknowledges the social phenomenon of music-making in a recent issue of The Globe & Mail:

> As a conductor you can't do anything by yourself - you can only get the orchestra in a position so that they can do it for you. It's really a process of knowing when you are needed, when to get out of the way, and the moment at which to really try and galvanize the thing so that it comes together. . .

and he marvels at the collaboration required to strive for culturally driven performance goals:

> . . .What is it that persuades 200 people to want to work together in the incredibly precise way that music demands? (Toronto, November 9, 1990)

To accomplish musical goals, conductors are aware of the interdependence of the artistic, technical, and social elements of ensemble music-making. Green's (1987) list of the qualities and skills of an 'ideal' conductor reveals that the individual should:

(1) be a fine musician and teacher;

(2) be a sincere and inspiring leader;

(3) have integrity with regard to the music;

(4) know the score thoroughly;

(5) convey its meaning to the players through superbly trained hands;

(6) be able to sing any part of the score;

(7) be able to hear any part of the score in the inner ear (i.e., the imagination) so that it will act as a standard of attainment during its realization in rehearsal;

(8) know theory, harmony, counterpoint, musical history, form and analysis;

(9) be familiar with orchestration and transposition;

(10) have attained a professional performance level on at least one instrument;

(11) constantly be learning more about the problems of each instrument in the ensemble; and,

(12) be endowed with 'musicality' (a term Green does not define).

The three stages of conducting practice

The processes by which a text is transformed from symbol to sound may be understood by referring to what Green (1987) defines as the three stages of conducting practice: the preparation stage, the rehearsal stage, and the performance stage. The function of the third stage is important as it represents the culmination of the processes of the first two.

a) The first stage: preparing for rehearsals

In this stage, conductors prepare for rehearsal, tentatively constructing concepts about how the notation ought to be expressed, and framing approaches to rehearsal, taking into account three areas of concern: the technical (idiosyncractic features of each instrument such as colour and dynamic range, the acoustical properties of the instruments, and the rehearsal room or the concert hall), the social (the collaborative nature of the undertaking), and the artistic (transforming the written symbols into imagined sounds).

They approach the score with a dual purpose: to gain information and to make sense from the information. They analyze the notation for its information, asking questions such as: Who composed it, when, and for what purpose? What is the style? What instruments does it require? What is the key, the metre, the form? If there is a melodic line, who has it and in what circumstances? For what level of instrumentalists is this music written? and so on. They draw out the elements from the score, analyze them in terms of their individual meanings, and synthesize them in terms of how they relate to one another. As they engage in this analysis, they begin the process of shaping the music's meaning within their personal frameworks of prior experience, knowledge, expectations, purpose, and so on. They constitute its aesthetic features, shaping and re-shaping its expressive aspects in the imagination (or, the 'inner ear'), where the imagined sounds form a reference point against which the actual sounds may be compared.

As they build these conceptualizations, conductors call upon their knowledge base of orchestration, music history, literature, theory, form, style, and performance practice. At the same time they take into account such factors as the capabilities of the players (individual weaknesses and strengths), the time available for rehearsing, and the purpose of the rehearsals. All of these considerations are aimed at exploiting the performing medium to its maximum expressive potential.

b) The second stage: working together in rehearsals

Rehearsal is a time of learning, of teaching, of striving for concensus of expression. Conductors in this stage act as guides, beginning the process of shaping and building in the minds of the players a concept of the work which parallels the concept which was formed in the imagination during the preparation stage. As the sounds unfold in the dimension of time, conductors are aware of, and respond to, the musical symbols in their concretized, explicit form, reflecting upon what they are hearing, and comparing the actual sounds to the their 'ideal'. When the two do not fit, tension is generated, and the

situation calls for adjustment, and the conductors strive for correspondence between the concept and the actuality, insofar as circumstances permit.

An effective conductor explores ways to help the players to place their individual sounds into the fabric of the whole so that the ensemble plays "as one". The players contribute their individual musical bits, collaborating with one another and with the conductor to create a work of art. While each member of the ensemble experiences the meaning of the text in a unique way, in terms of its essence, or feeling, the members of a good ensemble are sensitive to the need for agreement on its execution.

Conductors and players come to rehearsals with different perspectives on the music to be played. Conductors come to rehearsals with an overview of the work as a whole, whose character and structure they have come to understand from the musical score. In rehearsals, they shape and build its component parts, structuring the sounds of the music according to their interpretation of its meaning. On the other hand, the players begin to rehearse with only their individual strands of the music as a symbolic point of reference, and they go about fitting these strands into the whole fabric, whose character and structure they perceive aurally as the music unfolds for the first time. In time, they come to know the work as a whole, but at the beginning, their perspective is based on the fragment.

If conductors "can't do anything" by themselves, neither can each player alone make musical sense; however, the combined contributions of the conductor and the performers may result in a musical work of art. The way in which the work of art as a musical product is realized in sound is influenced by many factors including the conductor's knowledge and expertise, the players' level of technique and abilities, the musical materials used, and the willingness to commit to the social process.

While the players are responsible for producing their individual sounds, conductors have the responsibility for shaping the totality of the sounds; this involves attending to (1) precision of attacks and releases to create unity of expression, (2) blending of tone colours to create new qualities of colour, and (3) dynamic levels to create balance in tone

colour, and in melodic and harmonic elements, and (4) the use of dynamics for expressive purposes, (5) stylistic expression.

During the period of time that rehearsal takes place, an unwritten social contract is in effect under which the usual personal relationships which may exist between the players and their conductor are suspended, and the participants enter into a different kind of relationship. This temporary social arrangement allows them to explore together the music's meaning and to reach a concensus which is compatible with the conductor's conceptualizations.

c) The third stage, or 'the performance'

In this stage the musical ideas which have been shaped by all of the individuals, working towards common purposes under the leadership of a conductor, are presented and shared with listeners, who may experience a process of discovery and delight as the sounds unfold. During a performance, the conductor is completely immersed in the music, emotionally and intellectually, all the while maintaining an awareness of the progress of the music, analyzing its sound and the pace of its performance, making instantaneous adjustments aimed at a closer concordance of the reality and the concept.

Richard Bradshaw, reflects upon this duality of experience:

> At all times, conducting simultaneously calls forth both the emotional and the clinical self. The important thing is not that you're having a great time but that what's actually happening is good. It is a delicate balance between the passion you feel and the man inside you, who should be saying the whole time, 'but is the brass too loud ?' (The Globe and Mail, Toronto, November 9, 1990)

Part Two: Learning to become a professional conductor/teacher

> The student conductor. . . "has to see on his own behalf and in his own way the relations between means and methods employed and results achieved. Nobody else can see for him, and he can't see just by being 'told', although the right kind of telling may guide his seeing and thus help him see what he needs to see".
>
> John Dewey

The 'features of practice'

Schön (1987) asserts that all professional practices have their own distinctive conventions, constraints, languages, appreciative systems, repertoires of exemplars, systematic knowledge and patterns of knowing-in-action, and that students come to know these features through their practicum experiences. Music education undergraduates learn the features of conducting/teaching practice in conducting practicums. The features peculiar to this setting are historically evolved, culturally determined, and socially accepted. Examples of these features may be described as follows:

1. Conventions. a) Physical: players sit in fixed seating patterns, facing the front, watching, listening, and responding to a conductor's words and actions. The conductor usually stands within a fixed area. b) Social: the conductor acts with an authority which is granted temporarily by the individuals in the group.

2. Constraints. Musical goals must be formulated within the constraints of the available time, space, abilities, and funds.

3. Languages. Verbal language, and the modelling of ideas through singing or chanting convey meanings which are specific to rehearsals, and would not make sense in any other context. Baton gesture is a non-verbal language; it communicates musical expression in ways that words cannot. The conductor's tone of voice is appropriate to the leader-player relationship, and to the need to elicit particular musical responses.

4. Appreciative systems. Traditions of 'performance practice' set forth standards of playing which reflect the aesthetic values of the culture within which the conducting practicums are organized. Philosophical positions guide and shape individuals' perceptions about the nature and value of music.

5. Repertoires of exemplars: (1) recordings, and live concerts, reflect the musical styles and standards of performance which are valued by the community. (2) Rehearsal approaches used by effective conductors may be studied, emulated, and adapted to one's own particular situation.

6. Systematic knowledge. Conductors acquire a base of knowledge which includes music theory, history, orchestration, literature, 'performance practice', and the means of sound production of all of the instruments.

7. Patterns of knowing-in-action. In their encounters with music, conductors invoke, articulate, accumulate, transform, and expand their knowledge about the social, cultural, and musical dimensions of ensemble performance.

The purpose and value of the practicum

Through the experience of the practicum, students may learn these features as they come to acknowledge that a practice exists, that it is something which is worth learning, that it can be learned, and that the features of the practicum represent actual practice. Schön suggests that a paradox of learning to become a professional is that students do not at first understand what they need to learn, but can learn it only by educating themselves, and can educate themselves only by beginning to do what they may not yet understand. In Schön's description of the ideal practicum experience, students suspend disbelief, placing their trust in the supervising teacher, who is acknowledged as the possessor of the skills and knowledge of professional practice. The senior practitioner guides, and instructs, sharing acquired skills, techniques and knowledge with the students. In the course of time, students make this knowledge and experience their own, taking possession of, or

internalizing the features of practice. It might be said that it is through this experience that students find their 'voice'.

The practicum as a setting for learning to become a conductor/teacher of band

In conducting practicums, student conductors temporarily exchange the role of student for the role of conductor/teacher, and, under the guidance of an experienced practitioner, they learn about the features of conducting a beginning ensemble. They apply what they have assimilated from their experiences with their culture's music symbol system and values, performance and rehearsal conventions, repertoires of musical literature, rehearsal procedures, and language. Students learn by doing, and by thinking about what they are doing, as they undertake the tasks of conducting/teaching practice. They learn what it is like to be a teacher of music in a band setting, as they analyze their scores, prepare their rehearsal approaches, and then, guided by their musical goals, teach the players how to perform the music.

The performers in a beginning, or inexperienced, ensemble need help to produce the sounds, to play the right notes in the right style and at the right time, and they look to the conductor for guidance. In and from this interaction between the musical symbol, the sounds, and the setting, student conductors learn about the features of practice as they apply to the complex, multi-faceted world of instrumental music teaching in beginning band settings.

The practicum world as a 'virtual' world

Schön refers to the world of the practicum as a 'virtual' world, lying between the real world and the academic world, relatively free from the pressures and risks of the real world. In conducting practicums, student conductors encounter actual tasks of practice, as they rehearse, teach, and perform real music with real instrumentalists. But the situation is modified by the fact that the players are their peers, and the evaluation of their work is

guided by educational criteria. That is, the emphasis in the conducting practicum is on the growth, participation, and development of students who aspire to become conductor/ teachers. In the 'real' world, when those same students become practicing teachers, they may be evaluated by their administrators and communities less on demonstrated personal growth and more on the musical product (i.e. concert performance standards), ability to control a class, test scores obtained by their students, and so on. In the 'academic' world, the students would be engaged in academic, rather than practical tasks.

Conducting practicums are characterized by context-specific materials, languages and values which are derived from the elements of music: duration, pitch, volume, timbre, style and form. Practicums use musical materials which are appropriate to the capabilities of beginning players (taking into account such factors as physical endurance, and notation-reading skills). Practicum goals reflect the philosophy and values of the university's music education department, and the supervising teacher. The number of hours allocated, and the timetabling of the practicums, and the assigned credit weight, all reflect the institution's values, while the course content and relative weight of the marks reflect the values of the supervising teacher.

Social considerations

In the real world of the instrumental music class, student beginners are in the class either by choice or by parental or school decree. They may or may not have an aptitude for learning music, and may or may not want to be in the class. They may or may not be placed upon an instrument of their choice. They may be supported or discouraged by their family members and peers in their efforts to learn an instrument.

On the other hand, players in conducting practicums are young adults, and are usually present in the course by choice; they may or may not have an aptitude or liking for the instrument to which they have been temporarily assigned, but may appreciate the value of the experience to their musical careers. Many of them realize that they will be taking the

role of conductor in future practicums, and this influences how they view their participation as players. Being adults, family and peer support, while always important, is of less significance that it is to adolescents.

Beginners in the real world (often adolescents or pre-adolescents) and in the virtual world of the conducting practicums must overcome similar technical obstacles. However, players in the practicum world are music majors who perform on other instruments, read music notation, and have some familiarity with ensemble protocol. In these circumstances, a faster rate of progress can be expected. In both worlds, it is important for all of the participants -- players and conductor -- to approach their rehearsals with the understanding that the sum of their individual contributions is greater than its parts.

Summary

Student conductors learning the practice of music teaching become acquainted with the tasks of professional practice through practical experience. Upon reflection of the significance of this experience, they may learn about the artistry involved in preparing for rehearsals, shaping musical expression in rehearsals and performing the music for an audience. As student conductors internalize the features of the practicum world, they come to understand how best to exploit the artistic, technical, and social potentials of instrumental music classes for purposes which are essentially educational, but whose features are grounded in the musical symbol (rather than, for example, the mathematical or literary symbol).

Practicums and other related experience, allow student conductor/teachers to build up images of professional competence, which emerge and evolve over time. Such images may act as guides for the students as they proceed along the paths that lead them towards the practitioners they would like to become.

Part Three: The special challenges of working with inexperienced players

> The band teacher is aware of the importance of developing the instrumental technique of his students. Without this means, no end can be obtained within the limits of this discipline. The good teacher is also aware that technique is only a means and is not the end in itself. It is a vehicle which may carry the students towards musical experiences.
>
> Arnold MacLaughlan

What conductor/teachers of beginners know and do

Beginning players in instrumental music settings have the potential for realizing musical performance at a level which corresponds to their physical dexterity, musical sensitivity, collaborative skills and ability to read notation. To work with this potential to its best advantage, conductor/teachers strive to acquire and master not only the body of knowledge and skills that underlie professional conducting practice, but also the body of knowledge and skills that teachers must have in order to be effective in the instrumental music classroom. Teachers of beginners need to possess intimate knowledge of the strengths and weakness of each individual player, and of the method of sound production of every instrument of the ensemble. Because beginning players usually come to music classes with limited expertise, conductor/teachers need this knowledge to teach them how to play the instruments, how to read the music, and how to perform it. Such knowledge plays a guiding role in the choice of musical materials, in the analysis of the musical text prior to rehearsals, and to the choices of strategies and tempos, and the pace, timing, and mode of presentation of materials in rehearsals.

Kohut and Grant (1990) advise conductors of inexperienced players to take into consideration what they know about the potentials of the ensemble, and what is achievable within the constraints of time. Appropriate questions would be of the sort which ask, "What is this group of players capable of achieving at this time and in these circumstances?", or, "How can I get these people to play this music the way I think it

should be played?" and, "What is reasonable to expect to accomplish within the time available? Answers to these questions cannot be found by referring to the literature on conducting. Experienced practitioners know how to deal with these issues, but for the student, answers can only be discovered through reflection in and on experience.

Conductor/teachers know, for example, that players of limited technique should not be asked to play at the extreme limits of range, dynamics, tempo, and articulation, nor can they be expected to produce subtle variation of intonation and tone colour. Such demands place undue stress on the physical and psychological resources of the players and can delay and even harm their development. Furthermore, inept execution of a musical text precludes its satisfactory realization, obscuring its meaning and resulting in frustration on the part of the players and their conductor. Conductor/teachers must (a) choose a range of musical materials which will simultaneously stimulate the imagination, teach the art and discipline of music, and provide opportunities to enhance the artistic growth of each student, and they must (b) determine how, in what order, and at what time the materials should be presented. At the same time, these materials should promote, not hinder, technical development and should correspond to the technical capacities of the players at each stage of their growth. Conductors must, therefore, choose materials which balance the didactic and aesthetic needs of the performers. In a perfect world, the two would not be mutually exclusive. The knowledge which guides these kinds of decisions develops through reflection in and on experience.

Situations of practice

Undergraduate practicums are characterized by what Donald Schön (1983, 1987) calls unique, uncertain, and conflicted situations of practice, adjectives he uses to describe the characteristics of all professional practice. Dealing with such situations calls for knowledge which can best be learned through practical experience. Schön suggests that knowledge gained in practical experience prepares students to join the ranks of

professionals. In conducting practicums, music education undergraduates experience the situations of practice which are peculiar to teaching and learning instrumental music in a beginning band. Through interaction and collaboration with the musical materials, the supervising teacher, and the musicians, they develop, articulate, and expand their repertoires of specialized knowledge and skills.

"Situations of practice" may be defined as events which arise during the course of practical work, and may be characterized by uniqueness, uncertainty and conflict. The situations of practice in rehearsals are 'unique' in that they are peculiar to the context of a beginning ensemble and that they concern issues which pertain to musical performance. They are 'uncertain' in the sense that the conductor cannot predict with certainty how the group will respond to the demands made of them (although the experienced practitioner accumulates repertoires of exemplars which have predictive dimensions). Situations of conflict may arise when a conductor expects to hear sounds which correspond to the notation, and hears something different.

In the beginning ensemble, many of the "situations of practice" with which conductors must deal, arise due to the limited technique of the players, and to their inexperience with the conventions of ensemble playing. Situations of practice may be predictable or unpredictable. For example, the experienced practitioner knows that the very first time beginners sit down to perform together they will probably play out of tune, they will probably not perform with precision, and there will probably be many errors of pitch and rhythm. Awareness of such predictability assists the experienced conductor in preparing rehearsal approaches. It can be useful, for example, to anticipate these phenomena by isolating and programming the various elements, allowing the group to focus on gaining physical mastery over one task at a time, and then synthesizing them.

The unpredictability of a situation might lie in the length of time it takes for the ensemble to master a particular task. For example, one group of players might play with precision after a few minutes, while another group under similar circumstances might

require several rehearsals to master this task. A large repertoire of rehearsal approaches, acquired through practical experience, helps a conductor to respond instantly, and creatively to a variety of situations of practice.

Locating the sources and evaluating the causes of situations of conflict, and creating solutions: detection, diagnosis & remedy

Instances of conflict in rehearsal usually arise when there is a lack of correspondence between the imagined sounds and the reality. When beginners are involved, the discrepancies are often due to errors in execution, which may be thought of as musical 'miscues'. Error may be due to the players' failure to concentrate, inadequate capacity to perceive and discriminate musical sounds, or inadequate technique. It may be due to all three. Before devising strategies for handling errors or discrepancies, conductors identify the individuals who are experiencing the problems, evaluate the causes of the problems; then they suggest remedies. The choices of response are many and varied, and reflect the experience and practical knowledge of the conductor/teacher.

If conductors decide that the task is one which can be handled on the spot, they can offer the students specific remedies to handle the difficulty (like suggesting an easier physical manoeuver, for example), even without interrupting the rehearsal. If they decide that the problem is of too great a magnitude to be successfully overcome at that moment, they can choose from many options available to them, including: rewriting (simplifying) an individual part, choosing a simpler piece of music, assigning special coaching/practice sessions, placing the individual on another, simpler part, even placing the individual on a different instrument. There are many creative solutions to problems of practice, and the more experienced the conductor, the more numerous and more creative are the solutions that are found; through practical experience, the conductor/teacher accumulates a repertoire of exemplars of problems and approaches to their solution.

An underlying concern in every practicum is the constraint of time. Physical skills develop through regular and frequent practice over long periods of time. Public performances are an essential artistic outlet for any ensemble, and the pressures of preparing for performance have to be balanced with the needs of the players to develop their physical skills and musical perception without undue stress. Conductor/teachers call upon their judgement, formed in experience, to weigh these needs. Ideally, the two sets of needs can be mutually supportive.

Summary

Conductors who work with beginners call upon specialized knowledge and skills which allow them to deal effectively with the problems which are peculiar to this setting; at the same time, they have a responsibility to pursue goals which satisfy the aesthetic needs of the participants. They find creative solutions to technical difficulties and they exercise judgement in response to what they observe, and based upon what they know about the development of technique and about the performance potentials inherent in their ensembles.

Part Four: Knowledge, meaning, and communication

> Meaning and communication cannot be separated from the cultural context in which they arise. Apart from the social situation, there can be neither meaning nor communication.
>
> Leonard B. Meyer

To explore the kinds of knowledge which conductors develop and articulate in rehearsal, it is necessary to explore what they do and how they do it. In the first part of this introduction, I examined the processes by which conductors analyze a score, and then collaborate with musicians to bring a text to life. I discussed the processes involved in learning to become a conductor/teacher, and investigated some of the unique features of conducting inexperienced players. In this section I discuss how conductors communicate their musical ideas to their musicians through verbal and nonverbal forms of communication, and how they draw on two categories of knowledge: specific knowledge related to the discipline and practice of music, and personal knowledge related to its cultural, social and aesthetic aspects.

Propositional and non-propositional knowledge

Two questions may be asked about each of these categories of knowledge, or ways of knowing: "What are its characteristics?" and "What does it allow us to do?" Propositional knowledge may be characterized as being explicit, or deductive, and as knowledge existing in the public domain. Such knowledge allows us to engage in information-based discourse. In teaching, it constitutes the subject matter of the course to be taught. In music teaching this knowledge lets us trace the development of style, perform a harmonic analysis, or tell the student the fingering for A flat.

Non-propositional knowledge, on the other hand is the type of knowledge which is implicit, inductive, and intuitive, and is characterized by such abstract notions as values, morality, and principles. It is formed in experience, and guides us in the exercise of

judgement. In teaching, it guides us in the uses of formal knowledge, letting us know when to use it, to whom to direct it, when to introduce it, and in what form to present it. Non-propositional knowledge is also known as personal knowledge, and is related to the development of an individual's intellectual freedom, imagination, and personal ethics.

Student conductors bring both types of knowledge to their practicums. They bring their propositional knowledge, which is derived from the base of knowledge which underlies and distinguishes conducting practice from other types of professional practice. These areas of knowledge include music terminology, basic conducting gestures, music history, literature and theory, orchestration, performance practices, and the means of sound production on the various instruments.

They also bring to their practicums bodies of non-propositional knowledge which are associated with three areas of music values: the cultural/historical (performance standards), the social (leadership and collaboration), and the aesthetic (sensitivity to the nature and value of the musical symbol). These bodies of personal knowledge are imbedded in the stances conductors adopt towards the musicians, the musical materials, and the rehearsal situation. What conductors "know" is manifested in their words, gestures, and deeds during rehearsals. What they "know" is evident in their overt responses to the unique, uncertain, and "conflicted" situations of practice.

Gesture, language, and rehearsal approaches, and the musical imagination

a) Gesture. Conductors' ideas are externalized during rehearsals through their gestures and language, and through their approaches to rehearsal. These representations of conductors' thoughts may be conceptualized as the windows to their musical imagination. It is a convention of the music profession that the baton is held in the right hand, and is employed to communicate specific meanings which are derived from musical symbols, and which cannot be communicated through words. (The baton is preferred by some conductors; others prefer not to use it. In this paper, it is assumed that the conductor uses a

baton, although the baton may be also thought of as a metaphor for the conductor's right hand.) It is also accepted by the profession that each conductor's baton style is unique, like a signature, one might say. Arcaya (1976) showed that conductors' gestures are the explicit physical representations of their musical imaginations and, furthermore that conductors' gestures respond to the call of the musical situation. Green (1987) states that a conductor . . ."lets the music speak freely through his hands" (p.236), Ormandy (p.241, in Green, 1987) counsels, "Feel the texture of the tone as you call it forth. Sense that the hands and baton are molding, shaping, sculpturing a living thing. . . " and McElheran (1989), less poetically advises beginning conductors to project the characteristics of the music in their beat patterns and to strive for clarity.

A socio-psychological perspective on the nature and function of gesture is provided by Vygotsky (1978), who, in his research into human psychological development, proposed that gesture may be viewed as a form of graphic language, and may be described as "writing in air". This theoretical assumption supports the functional nature of the elaborate, formalized system of baton gesture which represents conductors' musical thinking.

b) Language. Although conductors communicate their interpretations of the music's character mainly through baton gesture, they make use of language to teach the musicians how to play the music during rehearsals, to work out problems which cannot be solved by gesture alone, and to establish their leadership roles. Conductors' language in rehearsal is 'thought made explicit', and, when artfully used, communicates their intentions and attitudes.

Appropriate language is an essential element in the ability to 'mean' (Halliday, 1978). While Schön refers to vocabulary as one of the distinguishing features of any professional practice, and Kohut and Grant (1990) remark on the importance of employing context-specific musical terms in rehearsals, Halliday's (1978) ideas about language as a social semiotic offer a conceptual frame of reference for interpreting conductors' language

in rehearsals. His notion of "register" represents the idea that language is employed through different forms for particular purposes in particular contexts. He postulates a form-function relationship which suggests that language is as it is because of what it has to do, and that the concept of register may be viewed as a form of prediction, in that if we know the context, we can make predictions about the language that will be used.

Halliday's conceptual terms of 'field' and 'mode' refer to forms of discourse; these terms tell us what is going on in a social setting. 'Field' refers to the institutional setting, subject matter, and activity of the participants, while 'mode' refers to the channel of communication adopted by the speaker in the sense that what is significant is not only what is said, but how it is said. While the dialogue between a conductor and a performing ensemble cannot be defined as a verbal exchange, Halliday would acknowledge that it is a symbolic exchange in which communication takes place.

'Tenor' is a third conceptual term which Halliday uses to refer to the role relationship between participants in a linguistic exchange. Among the requirements for a meaningful ensemble experience is the establishment of a good working relationship between student conductors and the performers. As conductors adjust to their temporary leadership roles during the period of a rehearsal, they assume a 'tenor' of communication which is appropriate to that role.

Conductors' effectiveness at getting their ideas across depends not only upon their mastery of baton gestures but also upon the clarity of their linguistic communications. Because the musicians must 'read' the conductors' communications and interpret their meanings, the linguistic communications of conductors may be interpreted from two points of view, the semantic and the social, and the questions which may be asked are: a) "Is the language appropriate to the context?", and, b) "Is it understood by those to whom it is directed?"

In the process of articulating their thoughts, student conductors develop their awareness of the interdependence of thought and language, and of the importance of

choosing musical terms to express musical ideas. They may also learn that their linguistic communications are only useful to their purposes if they are understood by the performers. Kohut and Grant (1990) note that good conductors use context-specific words like: soft/loud; fast/slow; short/long; high/low; and bright/dark. When student conductors use language which is not specific to the context, or whose meaning is unclear to the players, their messages may be confused, and their musical objectives may be compromised or delayed.

c) Rehearsal approaches. Conductors use a variety of approaches to get their messages across in rehearsals, as they attempt to bring a musical text to life. These approaches, or procedures, include everything conductors do in order to get the musicians to perform the music the way they want it performed. Kohut and Grant (1990) conceptualize rehearsal procedures as "methods of teaching", and suggest that these procedures are a means of improving and refining ensemble performance skills. They state that rehearsals allow conductor/teachers to communicate concepts that cannot be conveyed with gestures alone. Rehearsal procedures are directed, for example, by the need to (a) improve tone quality, music reading skills, and performance technique, (b) to develop musicianship, and (c) to correct wrong pitches, rhythms and articulations. While these authors stress the importance for the conductor of communicating as much as possible through the gestures of the hands, they acknowledge that information which cannot be expressed through gesture may be effectively communicated through words and through 'modelling' the desired sounds.

Student conductors articulate some of these procedures in their lesson plans, and improvise other procedures on the spot, in response to events which arise during rehearsals. Repertoires of rehearsal procedures develop and grow in number, kind, and quality, through the experience of conducting, and provide practitioners with exemplars which serve as bases for future rehearsal planning and improvisation.

Summary

Student conductors have opportunities to acquire the knowledge they need to become professional practitioners through their conducting practicum experiences. They learn to create meaning from a musical score, and are guided in this creation by the need to elicit the cooperation of others for its expression. They shape their ideas through various symbolic signalling systems, and they employ a variety of rehearsal approaches. By learning to 'read' these signals, musicians interpret their conductors' intentions, and try to express their parts accordingly. By learning to 'read' conductors' gestures, language, and rehearsal approaches, observers can track the reflective processes through which conductors shape musical meaning.

The next section will explore the theoretical principles underlying the processes of meaning-construction, and of reflection in the context of action, and it will demonstrate the relevance of these principles to conducting tasks in ensemble settings.

CHAPTER II THEORETICAL FRAMEWORK

This study draws on the assumptions that non-propositional knowledge is acquired and articulated in experience, and that meaning-construction is an individual, unique, and intentional act, which is developed in experience, and which may be explored through reflection.

According to Donald Schön, knowledge is developed and articulated in action. In The reflective practitioner: How professionals think in action(1983), and Educating the reflective practitioner (1987), he sets forth his theory about the nature and value of personal, practical knowledge and artistry. He describes a variety of ways in which professional practitioners use their non-propositional knowledge to deal with the peculiar and the anomalous situations of practice.

He articulates the general principles and characteristics of professional practice, and demonstrates how practitioners interpret and deal with phenomena as they appear in situations of practice. Using case studies, he suggests that practitioners explore, experiment with, and assess the situation; they make decisions, adopt courses of action, then reflect on the outcomes, in a continuous loop of reflection and action. He labels this process reflection-in-action.

He illustrates the concept of reflection-in-action through three case studies in music 'master' class settings. These accounts provide the inspiration and the basis of a model for investigating reflection-in-action among student conductors in beginning band settings. In place of Schön's 'master' there is a student conductor; in place of the solitary student of the master class, there is a group of student players. The "materials" of the situation arise from the features of the musical text, the responses of the performing group, and the circumstances of time, place, and purpose.

In Schön's 'model', the three interdependent categories of tasks of the music practicum are those which are related to its artistic, technical and social elements. The

artistic tasks are derived from the nature of the musical symbol, (or, what does this music mean to me, and how should it be expressed?), the technical tasks are derived from the means of sound production (or, how do we get these instruments to produce the sounds we want?), and the social tasks are derived from the need to persuade everyone to work together.

The musical symbols drive the thoughts and actions of the conductor and of the players. The players manipulate the sounds individually, and in collaboration with one another, under the leadership and artistic vision of their conductor. In rehearsals, the conductors' concepts of the music and of the social setting meet with the realities of the situation, resulting in a phenomenon which Schön would term "back talk". This conceptual term represents the interaction between the conductor and the "materials" of the situation.

"Back talk" is grounded in the action of the practicum and requires awareness. Two different examples of "back talk" could be events requiring remedy and events provoking pleasure. The former could be instances of a player putting down a wrong fingering, holding the instrument incorrectly, placing the stand too high, emitting a raucous tone, not paying attention. The latter could be an instance, say, where players execute a passage in an aesthetically pleasing style. In all instances, the reflective conductor is bound to respond. In rehearsals, "back talk" often involves conflicts between the conductor's conceptualized version of the text and the actual sounds. In Schön's terms, this would be a "conflicted" situation of practice. Such "back talk" compels the reflective conductor to consider whether the conflict should be attended to, and if so, how it should be approached; at the moment a choice is made to respond actively, the conductor adjusts the rehearsal plan accordingly.

"Back talk" could also describe a pleasant and unexpected surprise, as when, for example, the musicians respond with a fine realization of a troublesome passage with

which the conductor had been prepared to struggle. In this case also, the "back talk" compels the conductor to adjust the rehearsal plan.

As resolutions to conflicts are sought, the conductors' musical concepts and purposes might undergo some adjustments, or reshaping, particularly when inexperienced players, who cannot always produce pleasing sounds, are involved. Conductors who work in this manner, fashioning concrete sounds from written symbols through the medium of other people, constructing, listening, shaping and reshaping, and responding to the call of the situation, may be said to be continuously reflecting-in-action.

Schön's term for the active element of reflection-in-action is reframing. Reframing, as he describes it, is an active response to the demands of a situation. It is purposeful, and serves the musical vision of the conductor. It may involve trying something in a different way, usually in order to achieve specific goals, and then reflecting on the consequences of the action. Effective conductors may be characterized as those who engage in dialogue with the symbols and sounds during rehearsals; they are guided in this dialogue by reflection-in-action, and they reframe their approaches to shaping the sounds, in response to the call of the situation.

Summary of Schön's position

Reflection-in-action is a conceptual term which refers to the active processes by which non-propositional professional knowledge is developed and articulated, for specific purposes, and reframing is a process of redefining an event or problem and approaching it from a different perspective in the light of new understandings. These processes are characterized by purpose and by awareness, both necessary conditions for learning to become a reflective practitioner. Effective conductors are sensitive to "back talk"; they identify it and assess its significance to their purposes. They choose courses of action which correspond to their experience and knowledge of "back talk".

The construction of meaning, and the social and artistic dimensions of reflection

The construction of meaning, and how we come to understand the world, is a concept which has intrigued many philosophers (Clifton, 1976; Dewey, 1933, Langer, 1969; Rosenblatt, 1978) from a variety of disciplines. In the constructionists' view, the meaning of events, objects, and experiences, does not exist as an independent entity, with explicit characteristics, waiting to be discovered or identified by the perceiver, according to an external, predetermined set of rules or standards. Instead, they argue, we construct meaning through and in our experience. We come to make sense of our world through lived-through experiences, whose meanings we shape according to our prior experience, our expectations, our sets of beliefs, our personalities, and the settings in which the stimuli are presented. Moreover, just as our previous experience guides our interpretations of new experiences, so new experiences cause us constantly to reflect and consequently to re-adjust our view of the world.

The circumstances of time and of place have a bearing on how we construct meaning. The time of day, the time in our lives, the length of time the experience lasts, and the physical or metaphysical circumstances of presentation are also factors which impinge upon our interpretation of the experience. Furthermore, it may be said that individuals bring their personal cultural, social and historical frames of reference to social situations, and that the experience of these situations or events, influences and reshapes these frames of reference.

The notion that individuals construct the meaning of their world through reflection in and on experience, and that experience in turn, shapes their reflections, is one which has been explored at length by Louise Rosenblatt, with respect to the literary experience, by Thomas Clifton and by Susanne Langer with respect to the musical experience, and by John Dewey, with respect to educational philosophy.

Rosenblatt (1978) suggests that the process of evocation of a text is a purposeful act on the part of individuals, who bring to the experience their unique cultural, social, and

historical frames of reference. Furthermore, she asserts that the evocative act is conditioned by circumstances of time and place, and that whatever 'meaning' the text may have at the moment, it is always subject to adjustment. Although Rosenblatt elaborates a constructionist's view as it applies to the literary experience, she chooses to describe a performance by a pianist to best illustrate the concept in action. Indeed, she states that, with respect to meaning-constitution, all art aspires to the condition of music. She explains that the pianist's musical ideas are made explicit to the listeners through his transactional experience with the medium of sound production (in this case, the piano), and the text. He evokes the text, hears it, is aware of it, responds to it, and is guided by both the text and his response to it as the music unfolds. Rosenblatt's assertion that the processes of meaning-constitution, characterized by purpose, reflection, response, and awareness, shares many of the features of Schön's theory of reflection-in-action. While a reader of a literary text engages in a transactional experience within the self, the processes of the experiences of performers of music are externalized, and thus may be witnessed. For conductors, awareness and response, or reflection and action, are essential components in the constitution of a musical text in an ensemble setting.

Aesthetic and efferent stances

Rosenblatt proposes that the stance of a reader of a text is always purposeful, and that it may fall on a continuum of experience from aesthetic to efferent. Simply stated as binary opposites, an aesthetic stance, refers to a reader's awareness of the experience of creating the text's meaning, and a efferent stance refers to a reader's 'taking away' of information, as in the reading of an airline schedule or, in a conductor's case, reading the score to find out which instruments have the melody at measure nine. The notion of stance is important for its application to the experience of conductors, who 'read' the text in solitude, hear it in the 'inner ear', and then 'read', (or experience), the sounds as they unfold in rehearsal, using the previously constructed sounds in the 'inner ear' as points of

reference. When conductors prepare for rehearsals, the efferent stance is in play as they absorb the information contained in the text, and the aesthetic stance is in play as they synthesize the information in terms of how the elements combine for expressive purposes. During rehearsals and performances, conductors (and players) activate both stances, evoking and experiencing the meaning of the text in its concrete form of presentation, and 'taking away' information pertaining to its execution. The information so gathered may serve to guide future experiences.

Rosenblatt suggests that the pianist (mentioned earlier) clarifies, structures, and savours the musical experience as it unfolds through time, and is at the same time aware of information (in the form of sounds) which will help him express the text more clearly and with an improved structure the next time it is performed. This concept is useful for understanding the combined aesthetic and efferent stances of conductors in rehearsals and in performances.

Additional dimensions of the processes of meaning-construction

Conductors approach the musical score with the intention of constructing its meaning in terms of its substance and of its performance possibilities. They are guided in their analysis by the knowledge that they must communicate their understandings of the text to and through a group of performers. Conductors of beginners construct the text's meaning guided by their understanding of the limitations of the inexperienced performers. Thus, social and technical dimensions are added to Rosenblatt's transactional concept of meaning-construction. At this point, the experience involves three components: 1) the text, 2) many performers (each with their own sets of skills, experiences, expectations, and so on), and 3) a conductor. The participants generate meaning as individuals, and at the same time as a collective, all responding and adjusting to the resulting sounds. Yet another aspect of the social dimension is added when an audience is included in the experience. Participants who experience these processes, and are aware of the experience, may be said

to be participating in a musical event, or to be having an aesthetic experience, or engaging in an aesthetic "reading". So, it is apparent that the social dimensions of the activity are highly complex, and are multi-dimensional.

Other constructionists' theoretical positions

Rosenblatt's theories about meaning-construction correspond to aesthetic theories about the musical experience. Articulating a phenomenological perspective, Clifton (1976) proposes that the reality of musical meaning, rather than being a fixed reference point, is an act of experience, constituted in an infinite process of experience. His perspective leans towards introspection, essence and feeling, and his focus of concern is with the internal experience of the listener.

Langer (1969) explores the nature of meaning and the musical symbol from the perspective of their relationship to form. Postulating that the musical symbol is presentational, rather than representational, she talks at length about the fleeting, yet constructed character of musical meaning, as it is experienced internally by the listener:

> The assignment of meanings is a shifting, kaleidoscopic play, probably below the threshold of consciousness, certainly outside the pale of discursive thinking. The imagination that responds to music is personal and associative and logical.

and, she continues,

> Because no assignment of meaning is conventional, none is permanent beyond the sound that passes; yet the brief association was a flash of understanding.

While it is clear that there are similarities between the literary experience and the musical experience, there are differences both with respect to the nature of the symbol and to the nature of the experience. However, there appears to be general agreement among these theorists about the processes of meaning-construction, and their theories help us to understand how we make sense from what we read or hear.

Rosenblatt's theory of aesthetic/efferent stances offers a useful framework for understanding how a conductor shapes meaning in experience, because it provides a

conceptualization for the dual experience of the conductor, namely, responding simultaneously to the music's artistic expression as a 'whole' and to the execution of its component parts. To explain the nature of meaning-construction as it relates to a socially orchestrated, collaborative, musical event, Rosenblatt's ideas (with some elaboration to suit the context) appear to serve as a valid, if incomplete, theoretical frame of reference for understanding this social phenomenon.

In his oft-cited How we think, Dewey (1933) ponders the nature and function of reflective thought. His analysis of reflective thinking suggests that experience forms the basis of all reflective activity. Furthermore, he posits that reflection is an intentional human act aimed at the discovery of something which serves one's purpose, and that what is discovered regulates reflective thinking. Dewey's idea of transactionality is echoed in Rosenblatt's theory of the reading experience and the reader, shaping and being shaped by one another, in an infinite transactional relationship, and it supports Schön's theory of the infinite, transactional nature of reflection-in-action. It follows, therefore, that meaning acquires its significance through experience and reflection.

Dewey also claims that one of the functions of reflective thought is to transform a situation from one of obscurity or conflict of some sort, to one of coherence. This idea is related to Schön's notions of the conflict and uncertainty which are typical of practical situations. In rehearsals there is a need for conductors to simultaneously reflect upon, analyze, and respond in order to achieve coherence, or "synthesis" between the version of the sounds held in the 'inner ear', and the 'actual' sounds.

Summary of theoretical principles

The common threads running through this theoretical framework, then, are conceptual terms which represent processes involved in bringing a musical text to life in a specific social context. Typically, these processes are characterized by purpose, awareness, conflict and resolution, transformation, experience, reflectivion, and response.

These concepts are thought to be important by thinkers who have been active over several decades of this century, who have a variety of professional interests and backgrounds, but who, apparently, share similar cultural values and scholarly traditions.

Theoretical Assumptions

This study, then, is guided by the following theoretical assumptions:

1) Meaning is constructed through reflection in and on experience, and is subject to adjustment. Meaning-construction is characterized by purpose, awareness, and response, and is shaped by an individual's personality traits, prior experience, knowledge, expectations, and the circumstances of presentation of stimuli.

2) Thought processes, and language and gesture are interdependent. In conducting practicums, student conductors' ideas are made explicit through words, gestures, and deeds, which are observable, and therefore may be described and interpreted.

3) In rehearsals, conductors engage in continuous reflection-in-action, which is stimulated by "back talk". Reframing is an active, overt element of reflection-in-action; it can be described, and can serve as a framework to illustrate the processes of reflection-in-action.

CHAPTER III REVIEW OF LITERATURE

This review includes literature which is related to conducting as a professional practice, to conducting/teaching in educational settings, to research related to conducting pedagogy and practice, and to research on teacher thinking.

Conducting as a professional practice and as a field of study having artistic, technical, and social dimensions

Most literature on conducting practice is written by professional conductors. The authors mentioned here have emphasized the propositional knowledge which is fundamental to the art and practice of conducting, and which would be of interest to conductors, conductor/teachers, and teachers and students of conducting. Carse, 1971; Dishinger, 1976; Gattiker, 1977; Girard, 1987; Green, 1987; Grosbayne, 1973; Hunsberger & Ernst, 1983; Kahn, 1975; Kinyon, 1975; Kohut, 1973; Marple, 1972; Moe, 1973; Ormandy, in Green, 1987; to name but a few, address issues and offer specific suggestions related to the acquisition of skills and formal knowledge. These texts, variously, emphasize such topics as baton skills, score reading and score analysis, some rehearsal procedures, specific music terminology, musical examples illustrative of an array of conducting challenges, and information about such topics as transposition and tuning. Information may also be found among these texts about the administrative aspects, and physical organization of a musical ensemble.

McElheran (1989), and Ross (1986) include ideas about handling the social situations of rehearsal, and Simons (1983) devotes most of her text to issues of leadership and collaboration. These texts are useful a sources of specific information, and might be described as texts which would provoke an 'efferent' reading stance.

Literature on the special problems of student conductors and beginning ensembles

Kohut and Grant (1990), and Girard (1987) direct their attention to conductors of inexperienced players. They articulate some of the special practical concerns of being a conductor/teacher. These authors advise beginning conductors to plan their rehearsals around their understandings of (1) the reading and performance abilities of the group, (2) the difficulty and amount of music to be rehearsed, and (3) the time available for rehearsal. They stress the importance of choosing musical materials which are appropriate both to the expertise of the ensemble and which can be learned in the time available.

Kohut and Grant advise conductors to 'know' their score (many professional conductors recommend that the score should be memorized), to write out a rehearsal plan beforehand, and to know what they expect to accomplish by the end of rehearsal. They point out the negative social impact of coming to rehearsal without specific goals, and without well-defined plans to accomplish them. They advocate that student conductors review videotapes of their rehearsals to assist them in planning future practicums, but do not go into detail about how this should be done.

Kohut and Grant suggest that student conductors need to listen in rehearsals for: correct rhythms and pitches, intonation and tone quality, articulation, precision, phrasing, expression, dynamic contrast, balance, and blend, and they acknowledge the overwhelming task of listening, responding, correcting, and adjusting to these auditory stimuli. They describe the features of each of these elements of performance in turn, and some of the contexts in which these difficulties arise in a typical beginning ensemble. They describe three classifications of conductors' responses to situations of error or disturbance which arise in rehearsal: (1) direct verbal instruction, (2) modelling, and (3) descriptive language, or imagery.

While Kohut and Grant offer many useful hints for the conductor of the beginning ensemble, their approach tends towards listing do's and dont's. They seem to suggest that responses to situations of practice can be systematized somehow, and that conductors can

apply a model of response according to a hierarchy of priorities. The text does not acknowledge the role of the unique sets of skills, background, understandings, expectations, that an individual conductor brings to the experience. Their approach does not take into account the differences in perception and creative imagination, and the intentionality with which conductors go about constructing meaning. While they do refer to "one of the fundamental theories of music learning", (p.108) which they describe as synthesis-analysis-synthesis, they discuss it in terms of a sequence of procedures to be applied to a situation. It is not difficult to imagine the frustration of an inexperienced conducting student trying to apply a pre-determined, formalized system of response to a fluid situation where aural stimuli of many kinds compete simultaneously for attention.

Polanyi's (1962, 1975) notion of subsidiary and focal awareness might be a more appropriate way to conceptualize what a conductor attends to during rehearsals. He suggests that certain elements in the environment call to us more strongly than others, and that these elicit our response; at the same time, other elements recede temporarily to the background. This view respects the intentionality of the individual in the construction of the meaning of an event, and it seems a more useful conceptual framework for understanding the role of a student's individuality and purpose.

Froseth's (1979) workbook and accompanying audiotape, for student conductors learning the practice of conductor/teacher, was designed to develop visual and aural discrimination skills for diagnosing technical problems and evaluating aesthetic issues in ensemble performance. His musical examples present a cross-section of typical musical problems encountered in experiences with beginning musicians. The short musical excerpts, presented in increasingly thicker textures, are performed by instrumental combinations of various families. The examples present the student with the dual tasks of (a) detecting errors of pitch, rhythm, intonation, phrasing, articulation, dynamics, and ensemble performance, and (b) exercising global judgement of the excerpt's tempo, balance, style, tone, and intonation. This text is useful for developing in student

conductors not only the ability to detect discrepancies between the printed symbols and the heard sounds, but also to make quick evaluations about expressive elements such as intonation, style, balance, and precision of execution. In the experience of working with these tapes, away from the pressures of the practicum, student conductors can come to be aware of how their ears, eyes, and minds work together to sort out the stimuli and decide which elements they will attend to.

The role of the musical imagination

While the conducting literature cited at the beginning of this review focusses on the areas of propositional knowledge, and attempts to anticipate the sorts of musical problems which might be encountered in a rehearsal, little research has been conducted about the nature of professional artistry and the processes of its development in students. Only one study was located which deals specifically with the phenomenon of the musical imagination. Arcaya (1976), whose psychological study was mentioned in the theoretical framework, was interested in finding out more about the relationship between the imagination and non-verbal language. He interviewed three professional conductors to obtain his data. His findings suggest that (1) the imaginative process remains in the background of perception, integrating, organizing and sensitizing awareness to particular possibilities inherent in the musical sound, (2) conductors' gestures respond to the call of the musical situation, their bodies sympathetically reflecting the music's character through their movements in space, (3) conductors realize their uniqueness in the music through shared meanings, which are communicated to the listener, (4) conductors' private concepts of the music are always in dialogue with the social world, and allows the presentation of a point of view through another perspective.

Research in conducting pedagogy

Over the last 20 years, research has been dominated by the positivist paradigm, and studies have concentrated on such topics as the effects of instructional practices on skills acquisition and attitudes (Dickey, 1988; Eastwood, 1989; Gonzo & Forsythe, 1976; Leppla, 1989; Menchaca, 1988; Miller, 1988; Price, 1983; Sang, 1987; Taylor, 1989; Witt, 1986; Yarbrough, 1987; Yarbrough & Price, 1981; Yarbrough, Wapnick & Kelly,1979), the classification of conducting skills (Berz, 1983; Blackman, 1989; Grimes, 1988; Sousa, 1988), the development of drill materials for self-instruction (Sidnell, 1967, 1971), and the identification of contrasts in conductor intensity (Byo, 1988).

A review of dissertations-in-progress reveals studies related to the classification of conducting behaviours (Birkner, 1989; Laib, 1989), the effects of instructional techniques on the beginning instrumental instructor (Smart, 1989), the development of an instrument for assessing conducting gesture (Karpicke, 1988) the investigation of the effectiveness of conductors' communicative media in rehearsals (Francisco,1989), and the development of a curriculum to enhance conductors' aural skills (La Reau 1989).

Qualitative research in education

The issues of teacher thinking, and teacher knowledge as a valid field of study and an important area of research were first raised in a landmark study by Elbaz (1983). Since then there has been a movement among educational researchers to adopt qualitative approaches to examine these topics. Tyson, 1988, has documented a choral teacher's verbal behaviour in a descriptive case study, Whitaker (1989) has studied reflective thinking as exemplified in musical decision making. Buell's case study (1990) of conductor/teacher effectiveness investigates the role of conductors' gestures, and verbal and non-verbal communications in an instrumental ensemble in educational settings.

While Russell has written about the implications of the concept of reflection-in-action for pre-service teachers (1984), and has conducted a study of pre-service teachers'

knowledge-in-action in general elementary classrooms (1986), and MacKinnon (1986), and Geddis (1989) have explored teachers' reflection-in-action in elementary school science classes, no studies of reflection-in-action in music education have yet been located. In view of the role of reflection-in-action, as the process through which musical meaning is shaped in rehearsals, this is quite surprising.

Munby's (1989) report on the nature of reflection-in-action as experienced in practicum contexts by teachers in training suggests that his interpretation is framed by his understandings of the substance of the materials being taught, and media of presentation of the symbolic material. That is, his observations are based on studies carried out in classrooms whose major communicative medium is language, and whose symbolic frame of reference and symbol-processing skills are mathematical, verbal, or logical.

I would like to suggest that one's interpretation of the nature of reflection-in-action depends upon the context within which one experiences it. I would suggest that conductor/teachers are in a perpetual, active state of reflection-in-action during a rehearsal. Gilliss (1988) questions the credulity of those who believe in the possibility of frequent reflection-in-action in the classroom, when she observes that "life is too short to allow reflection on every occurrence". (p.52) Furthermore, Gilliss expresses doubt that teachers could be reflective at speeds that, she claimed, must be "lightning fast".(p.52) Green, (1987) on the other hand, describes the ideal conductor as an individual who must, ". . . have a mind trained to work as fast as lightning and a thousand times more continuously".

There is now a research trend towards a broader-based approach to investigating issues in education, with an emphasis on insights and understandings of processes. This trend will spill over into music education research, and has, in fact, already begun. Findings from studies in reflection in all areas of education can be useful for studies in music, and the reverse is also true. Studies of reflection-in-action in conducting practicums, could result in the development of new conceptual frameworks for understanding how students come to learn the artistry involved in becoming a conductor/

teacher. What is more, insights into the nature of reflection-in-action in the music class should offer researchers from other areas of education a very different perspective on reflective teaching, which may stimulate them to think about the issue in different ways.

CHAPTER IV METHODOLOGY

Every applied field of study values research as "a means of understanding, informing, and improving practice" (Merriam, 1988, p.6). Qualitative case study is an ideal research design for a researcher who is interested in insight, discovery and interpretation of phenomena or events in the context of what Merriam refers to as a *bounded system*, or, a program, event, individual, process, institution, or group. It attempts to describe and analyze some entity in "qualitative, complex and comprehensive terms" , and to develop "theoretical statements about regularities in social structure and process" (Merriam, 1988, p.11). For Merriam, a qualitative case study should a) focus on a particular phenomenon, b) be descriptive, c) shed light on the phenomenon, d) rely on inductive reasoning, and f) extend the reader's experience or confirm what is known.

With these guidelines in mind, I will use a descriptive case study approach to investigate the processes of reflection-in-action in beginning band settings. To set the context, I will first describe the setting, the participants, the course of study within which the practicums were organized, the circumstances of data collection, and my role as a participant-observer and supervising teacher. I will use selected excerpts from reflective logs to illustrate the scope and variety of issues which arise in conducting/teaching practicums.

I will then introduce 'Nick', whose reflection-in-action I will describe. I will explore, identify, describe, and interpret the processes of reflection-in-action through an interpretation of his gestures, language, and rehearsal procedures, and show how his reflection-in-action is guided by his need to shape musical meaning.

The research site

a) The physical setting

The music faculty of McGill University is housed in the Strathcona Music Building (named after Lord Strathcona), a splendid six-story greystone building in the architectural style of the turn of the century. It is set back from what was at one time a wide, elegant, tree-lined street of stately, low-rise, terrace-style houses of stone inhabited by the wealthy merchants and entrepreneurs of Montreal. Now, much of that formerly elegant street has given way to utilitarian, high-rise office buildings, apartments and university structures of concrete and glass whose height obscures the aspect of the mountain and of the river, and casts long shadows on sunny days.

To enter the building, students climb the wide, imposing stone steps and pass on one side or the other a large bronze sculpture of Queen Victoria, seated on her throne, wearing a crown and bearing a sceptre in her right hand. This former women students' residence once boasted a pillared, high ceilinged dining room fitted with solid dark wood tables and chairs, a gymnasium, dormitory rooms, laundry and ironing rooms, and a large, bright lounge facing the street. The building now provides space for offices, large and small ensemble rehearsal rooms, practice rooms, teaching studios and a concert hall. It is home to several hundred music students, faculty and administration and in its lively atmosphere one can hear from early morning until late at night the sounds of students preparing for jazz, symphony, and band concerts, chamber and solo recitals, and opera productions.

Traces of its former elegance may be imagined here and there in the few remnants of its original features, like the carved mantels of cold fireplaces and in the tall, wood-framed windows which the building's inhabitants can wrestle open or shut. Where once students dined in the relative comfort and style of the airy, high-ceilinged, pillared dining room, sharing meals at dark-wood tables easily seating eight, they now patronize a small

utilitarian eating room, where they consume their food from styrofoam and plastic utensils, and sit at tiny, moulded plastic tables and seats which are welded to the floor.

b) The rehearsal room

The 'large ensemble' room where the conducting practicums take place is situated on the second floor, at the end of a darkish hall, past the bustling area where students gather to eat and socialize. The rehearsal room is high-ceilinged and bright, with large, old windows facing the busy thoroughfare from which sirens from the nearby hospital, car horns, and other traffic noises compete at times with the sounds of the music. Leafy branches of tall, spreading trees frame the old, leaky, windows in springtime and in the fall and winter the bleak grey prospect of the downtown neighbourhood meets the eye and finger-blowing cold sometimes penetrates the room. Many combinations of choral and instrumental ensembles use this rehearsal room, which comfortably accommodates about 40 performers, and each group organizes its chairs, stands, and other equipment according to its particular needs.

c) The set-up Figure 1 shows the rehearsal room from the perspective of the conductor; Figure 2, on the following page shows the same room from the perspective of the videocamera and supervising teacher.

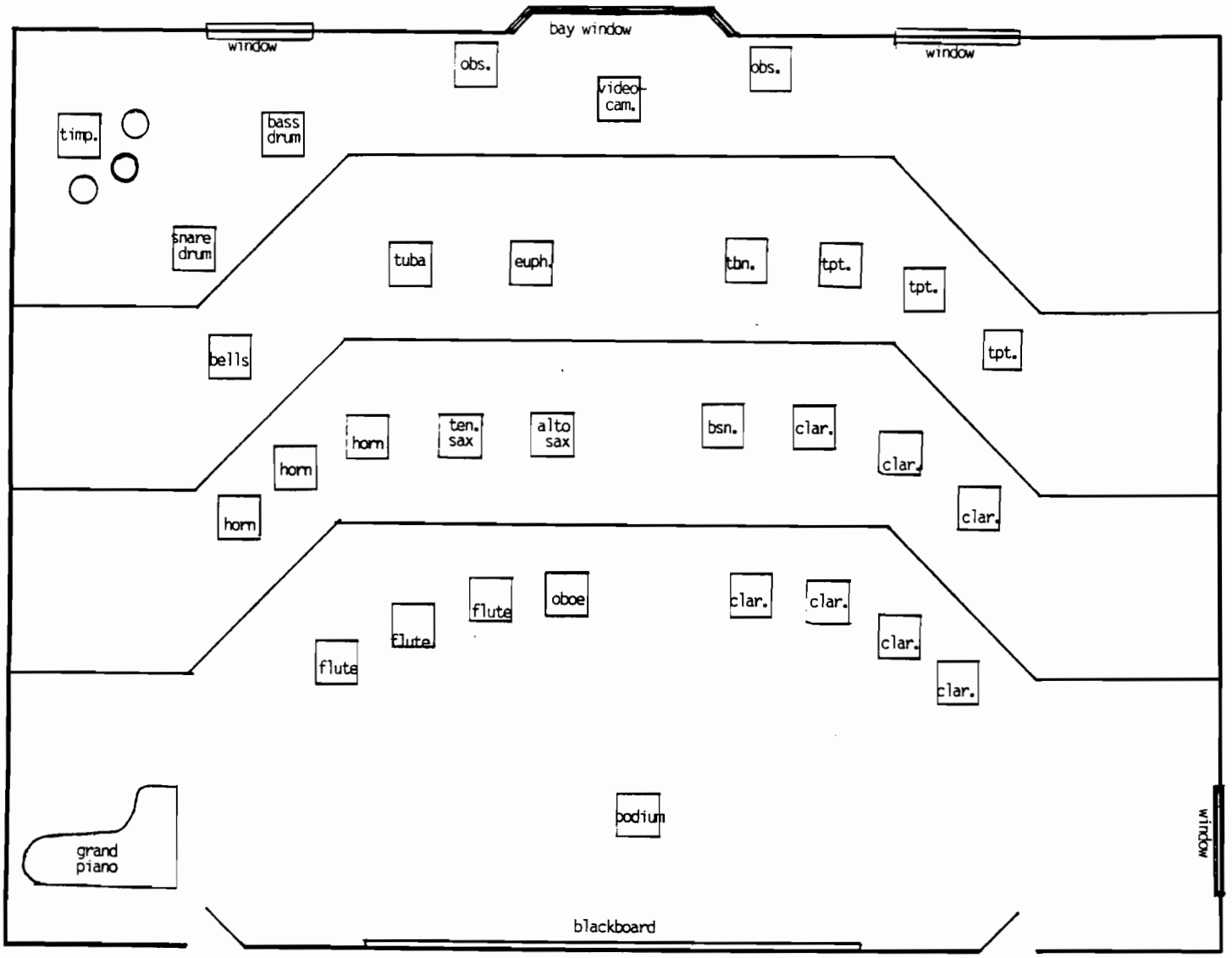

Figure 1

Representation of the floor plan of the rehearsal room,

and seating arrangement of the Lab Band from the perspective of the conductor

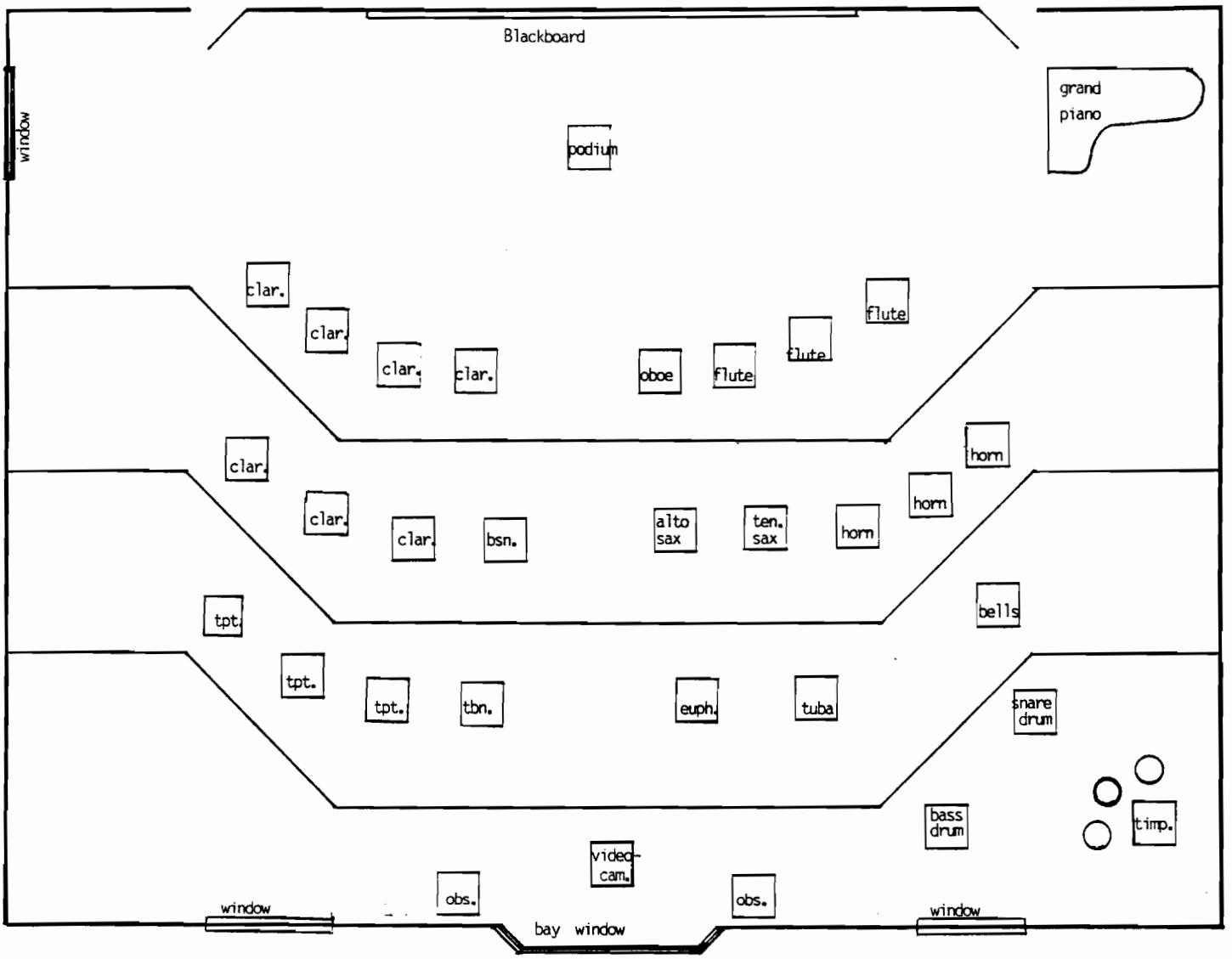

Figure 2

Representation of the floor plan of the rehearsal room, and seating arrangement of the Lab Band from the perspective of the videocamera and supervising teacher.

i) Placement of chairs and stands. From January to April, 1988, the semester in which the practicums of this study took place, the student conductors came early to the rehearsal room, if their schedules permitted, and they placed the chairs and stands in a seating arrangement which reflected the requirements of the ensemble, and which took advantage of the room's three permanent risers. These risers, arranged in semi-circular fashion, allowed for the best possible sight-lines between the performers and the conductor.

The seating arrangement, which is represented in Figures 1 and 2, took into account acoustic, logistic and musical concerns: (1) The softer instruments were placed at the front where they could more easily hear themselves, and be heard by the conductor, or by an audience. (2) The percussionists were placed on the top two risers, at the rear right, from which vantage point they had a good view of the conductor, did not obstruct anyone's view of the *podium* , and interfered as little as possible with the aural contact between the other groups of players. (3) The basses sat at the rear, ensuring that the foundation notes of the harmony could be heard by the players in front of them; such placement helped the higher instruments to perceive the harmonic progressions and to tune their notes. (4) The horns sat so that the bells of the stronger players projected their sounds towards the weaker players, helping them to tune and to find the correct pitch. Moreover, for reasons of balance, the horns were placed so that their sounds were projected towards the rear of the room rather than the front.

During the semester, the chairs and stands were usually grouped the same way, in one of the standard instrumental arrangements: the high, soft woodwinds across the front, the trumpets, saxes and horns across the middle, and the trombones, euphonium, tuba and percussion arranged across the rear. The oboe, flutes, horns, tenor sax and bells formed one pitch group in the beginning of the semester, and were placed so that they could hear each other's pitches as they played. The clarinets, trumpets, lower brass and alto sax formed the second pitch group and sat near one another.

ii) Percussion equipment. The conducting students made sure that the required percussion instruments were in place. This included 1) getting the snare drum, the snare drum stand, the orchestral bells and its stand, and the bag of assorted sticks, beaters, and other paraphernalia, from the locked cupboard just across the hall from the rehearsal room; 2) setting the equipment up in its designated spot in the rehearsal room; 3) making sure the bass drum and its beater were in place; 4) placing and tuning the timpani as required.

iii) The grand piano. When the piano was left in the *podium* area by the participants of a previous rehearsal, the Lab Band students pushed it to one side of the room or the other. Occasionally the conductors used the piano for sounding pitches for tuning, or for playing a musical example but the piano was always placed at the side of the room.

iv) The videocamera. A conducting student usually set up the videocamera at the centre rear, on the third riser. The student then adjusted the camera so that its lens was focussed on the *podium*. A slight separation down the centre of the Lab Band allowed the videocamera an unobstructed view of the conductor. The camera videotaped all of the practicums in their entirety.

d) Distribution of parts.

When necessary, the conducting students distributed the music, and in so doing, became familiar with the numbers and distribution of the players, and with the nature of the task.

e) Getting started

The conductor who was going to begin the practicum usually had a few minutes at the start of the hour to get ready, and might take that time to prepare mentally, or to write instructions on the chalkboard about what would take place during the rehearsal. For example, the names of the pieces or the exercise numbers that were going to be rehearsed

might be written there, so that players would know what to expect before the rehearsal began.

The student players began to enter the rehearsal room around eleven o'clock, their French and English chatter reflecting the linguistic duality of the university. They placed their coats, knapsacks, and briefcases at the side, or rear of the rehearsal room, and removed the instruments from their cases. They made sure that they had a chair, a stand, and the music they needed for the rehearsal. They assembled their instruments as necessary, and practiced getting sounds from them, or practiced something they had recently learned or were about to rehearse, as they waited for the class to begin.

When the conductors were ready to start, they stood in the appropriate position at the *podium*, and looked around the room to make sure that most of the performers appeared ready to begin. Sometimes they waited for the supervisor to tell them to start. Usually the class began between 1105 and 1110h.

The Lab Band

a) Formation A required ensemble for all 'school music' majors, the Lab Band served as the performance ensemble for students of the woodwind, brass and percussion "techniques" classes and for the students of the instrumental conducting classes. It offered students the experience of playing in and conducting a beginning ensemble of diverse wind and percussion instruments using materials appropriate for a beginning group, under conditions which simulated a beginning class.

At the beginning of the term the Lab Band comprised 13 men and 16 women music undergraduates: 12 students were from the woodwind techniques class, three were from the brass techniques class, nine were from the percussion techniques class and six students were from the instrumental conducting class. One student, who was registered simultaneously in the percussion and the woodwind techniques classes, alternated between performing as a percussionist and as a woodwind player.

As part of their degree programs, all of the students were engaged in the formal study of an instrument, including the voice, on which they specialized, and worked towards a series of practical examinations. Twenty-seven students were registered either in the "school music" program, whose course of study wwas directed specifically towards a career in teaching, or in the "faculty" program, whose course of study was of a more general nature. Two students were not registered in a particular program; they were considered "special" students. The breakdown by instrument and by program is illustrated in Figure 3.

Major instrument		Degree program	
piano	(11)	School music	(19)
organ	(2)	Faculty program	(8)
guitar	(7)	"Special"	(2)
voice	(2)		
clarinet	(3)		
saxophone	(1)		
trumpet	(1)		
horn	(1)		
percussion	(1)		
electric bass	(1)		

Figure 3

Lab Band participants January-April, 1988:

Breakdown by major instrument and degree program

All of the students participated in the university's performing ensembles. Students majoring on piano, organ, guitar, and voice usually had their large ensemble experience in the various university choirs, while the others performed in the university's jazz bands, brass and reed bands, chamber ensembles, or orchestras.

b) Balancing the ensemble & distributing the personnel. As supervisor of the Lab Band and instructor of the instrumental conducting course, I was responsible for deciding the distribution of the various personnel on the instruments available. My decisions were coloured by an overriding concern for the maintainance of a workable balance of colour, weight, and voice so that a range of musical experiences could be provided. To achieve

such a balance, the interests of the individual had to be balanced with the interests of the group. In deciding upon the make-up of the Lab Band, I exercised my subjective judgement about how a brass and reed band should sound as I considered various factors, including scoring, acoustics, availability of instruments, the individual weaknesses and strengths of the students, and the relative numbers of students in each of the techniques classes. Keeping in mind that creating a well-balanced instrumentation is often referred to as the 'art of the possible', and starting from a position of the 'ideal' balance for an ensemble of about 23 players, I took into account three basic considerations when deciding how many should play each instrument:

1) balancing the louder instruments with the softer ones. (This often means brass and percussion vs woodwinds.)

2) balancing the high, middle and low instruments both within and across families. (For example, within a family, say clarinets, music demands that there be people to play high, middle and low clarinet. Across families, music demands that there be higher instruments, who often play a melodic line, middle instruments, who often fill in harmonies, and low instruments, who usually provide the bass of the harmonies.)

3) the range of the instrumental colours. Variety of instrumental colour and balanced sets of colours allows for expressive combinations of sound and the creation of musical interest. (For example, my preference was to always have an oboe and a bassoon while limiting the number of saxophones to two, or three at the most.)

This attention to balance ensured that the student conductors would be able to work with musical materials which exploited the fullest possible range of colours and harmonies.

To ensure that the percussion did not overpower the winds, and to meet the typical requirements of the scoring for beginning band music, I arranged for three players from the percussion class to be present at each Lab Band: one to play the snare drum, one to play the bass drum, and one to play the orchestral bells. Groups of three percussionists

attended Lab Band on a rotating basis, and took turns during rehearsals playing each of the percussion instruments. When there was a need for more players, for example, when the music called for timpani, a fourth percussion student was asked to attend the Lab Band. These students had to keep their study schedules free of other committments at Lab Band times in case they were needed.

Towards the end of the term, a schedule was drawn up for the dress rehearsal and concert, to ensure, as far as possible, that each percussion student would gain performance experience on each of the percussion instruments.

The brass and woodwind students were distributed between high, middle and low brass and woodwind families so as to make up a fairly balanced instrumentation with some variety of colour. Two of the woodwind players volunteered to play oboe and bassoon, and the conducting students agreed to play brass instruments when they were not conducting to ensure a proper ratio of brass to woodwinds.

At times, certain players alternated between two instruments, depending on what was needed on that particular day. Half-way through the semester, two of the clarinettists switched to alto and tenor saxophone. This added another colour to the band, and gave two students from the woodwind class an opportunity to experience a second instrument in the context of a large ensemble.

Frequently, students from the woodwind classes, most of whom were assigned to play clarinet in the Lab Band, requested that they be permitted to play the saxophone or flute. Such requests were granted only if the balance between the flute, saxophone and clarinets could be maintained by moving students around from one section to another, and this could only be effected if enough students wished to make these changes. There were few requests to play the more difficult and less familiar oboe and bassoon, and volunteers to play these important instruments were very much appreciated, as their sounds added a richness to the ensemble's tone colour.

Generally, I encouraged students to remain on the same instrument in Lab Band for the duration of the term so that they could acquire some basic proficiency on one instrument. (In their techniques classes the students had opportunities to experience a variety of instruments.) That proficiency could then be transferred to another wind instrument within the family without a great deal of difficulty. The achievement of some technical proficiency on the part of the performers created possibilities for the ensemble to perform works of greater complexity and length towards the end of the semester, offering greater challenges and variety in musical interest, to players and conductors alike.

The distribution of the students in the Lab Band in January, 1988, among the various instruments at various times during the semester is illustrated in Figure 4.

Flutes -	2 or 3	Trumpets -	2 or 3
Oboe -	1	Horns -	2 or 3
Clarinets -	7 or 8	Trombone -	1
Bassoon -	1	Euphonium -	1
Alto Saxophone	1	Tuba -	1
Tenor Saxophone -	1	Percussion -	3 or 4

Figure 4

Instrumentation of the Lab Band: January-April, 1988

c) The participants. Three categories of participants were involved in the Lab Band practicums: performers, conductors and supervisor.

i) The performers Except for the conductors, who performed when they were not conducting, the players were students of the woodwind, brass and percussion "techniques" classes, where instruction focussed on the techniques of playing and of teaching the instruments within these families. These three classes met separately for an hour on Mondays, Wednesdays and Fridays, and then combined to form a Lab Band class for one hour, on Tuesdays and Thursdays. Thus, for 5 hours per week, each 'performer' was exposed to the fundamentals of instrumental music learning and teaching, both in the context of the techniques classes, where the emphasis was on individual technique, and in the Lab Band classes, where the emphasis was on ensemble technique.

ii) The conductors Students who had either completed the techniques classes and other prerequisite courses (ear training, theory, music history, and basic conducting), or who were accorded "special" status, met in the instrumental conducting class for one hour on Mondays, Wednesdays and Fridays. On Tuesdays and Thursdays, they either conducted or played in the Lab Band.

iii) The supervisor As supervisor of the Lab Band, I co-ordinated the personnel and the activities of the band, and attended all practicums. My administrative duties included: a) preparing the conducting roster for the semester; b) ensuring that the necessary music, personnel, space and equipment were available as needed for rehearsals and the concert; c) keeping records of attendance; d) attending to non-musical problems of individual players during rehearsals, such as stuck valve slides, stuck mouthpieces, replacing lost music and broken reeds, and generally handling the tasks typically encountered in a beginning instrumental class.

I sat near the centre of the third riser, with the tall windows letting in light at my back; I ensured that the videocamera, a few feet way from me, was fully operational, taping every student's practicums. From this position of height and remoteness, I could

not only view the conductors, and take notes, but I was also able to move unobtrusively about the class as needed, to deal with specific problems of ensemble members, or to illustrate a point of interpretation by writing on the blackboard, or to hear the group's balance from other vantage points. Although my position at the rear of the room allowed me to remain fairly inconspicuous, and to distract the players as little as possible, the sounds that I heard the band producing were distorted, with the lowest instruments and percussion being closest to me, and the softest instruments being farthest away. At times I needed to stand in front of the band to get a better aural perspective.

Occasionally I interrupted the rehearsal to discuss something which I thought needed to be attended to. However, mine was basically a "hands-off" approach, to allow the conductors to build a relationship with the band members, to permit the generation of a momentum within the rehearsal, and to allow them the freedom to experiment, make mistakes, and find solutions in their own way and at their own pace.

The instrumental conducting course

a) Content, purpose, & organization

As the instructor of the instrumental conducting course, my duties included the design and implementation of a course of study which emphasized skill development, as well as aesthetic and educational issues. The thrice-weekly seminars addressed practical issues, such as: a) balancing the instrumentation, b) placing students on instruments to which they are physically suited and on which they have the best chance for success, c) balancing the needs and wishes of the individual students with the needs of the ensemble, d) recruiting students for the music program, e) evaluating students' abilities and potentials, f) distributing students according to ability across the families of the band, and g) the necessity for establishing seating plans. Reading assignments from texts on instrumental music pedagogy were given, which coordinated with these issues.

Written assignments included preparing bibliographies of texts on instrumental pedagogy which would serve them as future sources of reference, and a paper (also presented orally) describing and evaluating beginning instructional materials. They were assigned the complete MLR Instrumental Score-Reading Program workbook and audiotape (ref. Froseth and Grunow, 1979), which gave them opportunities to practice error detection and to learn to exercise their aesthetic judgement on questions related to tone quality, intonation, tempo, balance and articulation.

The students were encouraged to think about and articulate the relationships between their own musical values, educational goals, and the aesthetic content of the musical materials used in teaching and learning. To consider these issues we systematically examined published musical materials, written for young players, to see how the elements of music were combined and presented for expressive and pedagogical purposes. These discussions were based on analyses of: range, key or modality, melodic, harmonic, and rhythmic interest, style, form, genre, expressive devices, orchestration, part-writing, and the sequence of presentation of new material.

I prepared the students for their conducting practicums by showing them, in class and on an individual basis, how to analyze a score and take into account the limitations of the players' technique and the time available. I co-ordinated the drill of baton gestures with the conducting challenges which were going to be encountered in their scores. The students were expected to be thoroughly prepared in every detail for their Lab Band rehearsals.

b) The practical components

i) The workshops. One practical component for the students of the conducting course was a series of workshops in beginning band instructional materials. On several consecutive Fridays, the conductors formed a small ensemble, playing on various instruments which were new to them, in an atmosphere which was conducive to

exploration and experimentation. They took turns conducting each other, using a variety of band "method" books which are commonly used in schools, and they experienced, through playing, conducting, and discussing, the teaching approaches employed by these books. In this setting also, each conductor had opportunities to work out specific conducting problems they had encountered in the practicums, like giving clear preparatory beats, "fermatas", or "cuts".

ii) The Lab Band as practicum site. The major practical component of the conducting class was provided by what the university's calendar referred to as the 'Lab Band'. These practicums provided the conducting students with an environment where they could apply their knowledge, explore ideas, and try out the strategies that were discussed during the instrumental conducting classes. Rehearsal preparations, and the implementation of musical ideas in practicum situations were discussed in conducting classes before and after the Lab Band experiences, thus providing a continual loop of analysis, experience, and reflection on experience.

Starting in the third week of the semester, this ensemble met twice weekly for one hour, and ran to the end of the semester, for a total of 22 hours. Two of these hours were given over to the university's interviewing committee, which auditioned two candidates for a teaching position by having them conduct a Lab Band rehearsal as part of the interview procedure. The last two practicums were used for a "dress" rehearsal and concert conducted by the student conductors. This left a total of 18 one-hour, or 36 half-hour practicums to experience, and to experiment with the possibilities of music-making with a beginning band.

The frequency of conducting practicums was determined by the number of students enrolled in the class. With six students enrolled in the conducting class, each student was scheduled to conduct for 25 minutes every third Lab Band class. One student dropped out during the semester, increasing slightly the conducting opportunities for some of the

remaining five. Each student had a minimum of six half-hour conducting practicums, plus the dress rehearsal and concert performance.

c) The practicums: Variables of time, energy, and expertise

Social and temporal factors had an impact upon the rate of progress of the practicum. The abilities of the players to perform and respond as individuals and as a group, and the abilities of the conductors to communicate their ideas effectively, determined the rate at which the ensemble progressed through the increasingly difficult musical materials. Each practicum gave the conductors approximately 25 minutes to establish a rapport with the class and to accomplish their goals.

I scheduled the students to conduct alternately in the first half (1105-1130h) and the second half (1130-1155h) of the class so as to distribute evenly the variables of time and energy. The student who conducted first, worked with players who were mentally and physically fresh, but precious rehearsal time was needed to tune the instruments, and to conduct warm-up exercises to get the players' muscles ready for rehearsing and their minds into a collaborative mode. The conductor of second-half practicums worked with players whose muscles were physically warmed up , but who might be starting to tire physically and mentally. Twice within one hour, and four times per week, the players had to adjust to a different conductor's expertise and baton style, personality and approach, language, and rehearsal techniques -- a disconcerting experience for any musician. Each conductor had to quickly establish leadership and get the rehearsal moving so that as many goals as possible could be accomplished in the time available.

d) Sharing a semester's work

A "demonstration" concert was scheduled for the final Lab Band class, offering all of the participants the experience of making music with the added dimension of an audience's presence. While all of the participants had performed in public on their 'major' instruments, the experience of conducting was a new one. The students assembled a

concert program, examining many concert pieces before choosing the titles they wanted to prepare in the few weeks before the performance. Considerations included balancing their personal preferences with the need to present a balanced program, and weighing the potentials of the participants (including their own) to prepare the musical selections in the time available for rehearsal. These considerations required them to assess the length and level of difficulty of the music, musical interest offered by the piece, the variety of style, key and metre, suitability of the piece for the circumstances and the purpose of the concert.

The conductors then decided together upon the order in which the pieces would appear on the program. This involved the consideration of six factors: style (bright, bouncy, lyrical), genre (march, waltz, chorale, folk music, arrangements from classical literature, compositions for band, student arrangements, etc.), metre (2,3, 4, 5 or 6 beats per bar), mode (major, minor), form (ternary, binary, variation), and length of selection.

A "dress" rehearsal was held in the second-to-last Lab Band class and the demonstration concert, advertised within the faculty, was presented in the rehearsal room during the last scheduled Lab Band practicum. The students had the option of having the score in front of them or not, but were urged to conduct without looking at it so as to free them from the visual distraction and allow them to focus on the aural experience. Some of the conductors chose not to use the music and stand at all, while others needed the security of having the score in front of them, even if they did not need to look at it. Printed programs were distributed, and the audience seated themselves along the side and rear walls of the room.

An audiotape of the concert, made by students from the recording studio, was placed 'on reserve' in the audio library. The conductors viewed a videotape of the concert during their last instrumental conducting seminar, when they were invited to reflect together on the unique experience of conducting in public.

e) Evaluation of the student conductors

Evaluation was based on the extent of committment and thoroughness which was evident in the students' written assignments and practical work. My assessment of their practical work was based on how they approached and responded to the situations of practice, and on the extent and quality of improvement in their rehearsal approaches over the course of the semester.

Reflections on practicum experiences

a) Written reflections. After each conducting practicum, the students were asked to reflect upon their experiences, and to hand their written comments to me. I, in turn, reflected upon what I observed during the rehearsal under two different circumstances of time and place: (a) while it was going on, and (b) while I was reviewing the videotapes. I handed my reflective comments to the students only after I had received theirs, to try to encourage them to respond to the experience rather than to my remarks. The students were aware that the content of their reflective logs, would not be evaluated formally, but would contribute to my global assessment of their efforts to learn the features of practice and to develop their professional artistry.

b) Videotapes. Every Lab Band rehearsal was videotaped and saved, forming an audio-visual record of all of the practicums during the semester, for a total of approximately18 hours of videotape. The videotapes were useful both in the instrumental conducting seminars, and in private meetings, to illustrate and review with the students significant musical events or exemplars of practice. The replaying of selected episodes from the rehearsals afforded the students opportunities to see how their actions and words appeared from the point of view of the players, and allowed them to hear, as many times as they wished, the ensemble's musical responses whose details they might have missed during the actual rehearsal. The videotapes form the data base which makes possible the exploration of one student's reflection-in-action.

Reflective logs and videotapes as a body of research data.

The idea that this material might provide the data for a research study only began to take shape as the semester progressed, and it became evident that a rich body of data was emerging. At the end of the semester, I explained that I wanted to do a study which would involve a description of what takes place in rehearsals, and that I wished to use their reflective logs and the videotaped practicums. I assured them that I would use pseudonyms, and all of the students gave me verbal permission to to use the data I had collected.

In the next section, extracts from the reflective logs are presented, by theme, to illustrate the variety and scope of issues which were of concern to me and to the students in the conducting practicums. Drawn at random from the logs, the extracts were selected to portray various technical and artistic issues which arose in a socially orchestrated, collaborative environment; the purpose is to provide a sense of the features of conducting/teaching practice. The processes of reflection on experience is evident in the extracts from the students' logs.

Purpose and focus of my reflective logs

The guiding philosophical questions for my reflective logs were: "What does this musical text say and how may it be expressed in this context, with these people, and within the constraints of time and the expertise of the conductor?" and, "How can I stimulate these students to think about the importance of these questions?" The following exerpts, drawn at random from my reflective logs to several students, illustrate my attempts to direct their awareness of a) the skills, b) the propositional knowledge, and c) the artistry involved in becoming a competent professional: (Reference code: Researcher's Reflections = RRDay/Month/Year)

a) Skills

When you wish to hear the first note staccato - as written - practice giving a preparatory beat which reflects this style which is light, and bouncy. A smaller beat with a little flick of the wrist at the bottom of the beat will do the trick. You don't need the whole arm for such a gesture - it communicates length and weight. Try this at home. (RR02/02/88)

b) Propositional knowledge

"What is the purpose of the warm-up, other than muscular?"
and, "What are some of the possible causes of poor intonation in the clarinet section, and what advice can you give? (RR11/02/88)

c) Artistry

What does style sometimes tell us about tempo? (RR11/02/88)

What interest, besides colour, is added [to Sooke] by the presence of the horn and trumpet? (RR08/03/88)

. . .let's discuss the changes of tempo and how the accents are to be achieved. (RR08/03/88)

Aesthetic values were a frequent topic of discussion and reflection. The importance of developing such awarness is underscored in my remarks to a student who became overly enthusiastic about changing the score for experimental purposes which had no apparent aesthetic goal:

In this piece there are many elements that need to be worked on such as: precision of ensemble, tuning, style, dynamics, accents. These have been left up to the individual player to decide and consequently there is no sense of ensemble here. Unfortunately, most of the rehearsal time has been taken up in experimenting with tempo changes - which are not in the score. (RR29/03/11)

Generally, I encouraged risk-taking in the interests of establishing leadership, as illustrated in this excerpt,

It's important to make a quick decision sometimes - even if it means risking making the wrong one. (RR17/03/88)

and in the interests of improving musical expression:

By all means, feel free to change the numbers of instruments - it's one way to achieve a better balance - which will better serve the music. (RR04/02/88)

One of the purposes of my reflective comments was to help the students become aware of the importance of anticipating the technical problems of inexperienced players. The following two excerpts show this concern:

> Consider: at this stage of the Lab Band, what are some of the technical limitations which make it difficult to obtain musical goals? Which of these limitations can be helped by suggestions from the conductor and which simply have to wait until players are a little stronger? (RR 02/02/88)

> What is the challenge(s) of this piece: key? range? technique? rhythm? style? What is easy about this piece? Which instrument(s) face the greatest challenge, and what are some approaches you might take to deal with it? (RR16/02/88)

Some of my observations reflected my values with regard to the need to create a social environment which is conducive to musical collaboration. In the next two excerpts, I point out how a conductor's actions might have a negative effect on a class in the 'real' world:

> There are many long pauses while you examined your score. If these were kids, you would have lost their attention long ago. They have to be kept as busy as possible. (RR11/02/88)

> . . .it is good to be aware of the problems created if a teacher/conductor is perceived to have favourites (and we all have them). Next time give 'Sharon' the part - even though she is not as capable as 'Sylvia'. Be careful to give her something which she can play. You don't want to place her in a situation where she will feel inadequate or humiliated in front of the group. (RR11/02/88)

At the same time, I wanted to acknowledge the positive effects of the conductors' actions, as this next excerpt illustrates:

> Playing right through the piece is a good move psychologically - everyone needs to hear the overall shape of the piece even if there are errors. (RR16/02/88)

To help the students become aware of their own musical knowledge and values, I often challenged them to discover answers to problems which I thought were essential to address. My reflections were driven by the belief that the conducting students often knew

more than they were aware of, and that in order for them to become effective conductor/teachers, they had to learn to reflect constantly about how they wanted the music to be expressed. I felt that it was essential for them to continually strive for an 'ideal' sound, rather than accept a mediocre standard of execution. And so, I sometimes pushed a student to consider what more could be done to improve a performance, as in this excerpt, where I suggest two specific expressive areas,

> . . .I agree that it went quite well. Now, what could be done to improve it, to make it a little more energetic? Consider: tempo & style, and decide what, precisely can be done in these two areas. (RR01/03/88)

In one instance, I probed for a student's emotional response to a piece of music,

> Is this style appropriate to this piece? What kind of musical feeling do the voice-leading, harmony, and rhythmic patterns express? (RR10/03/88)

and posed some thought-provoking questions aimed at having the student contemplate the significance of attending to musical detail,

> . . .Did you want a double-stroke or a "buzz" roll? Where, precisely, did you want the sound to stop: on the next downbeat so as to dovetail with the band, or did you want that silence between the drum sound and the band's? These may seem like trivial questions, but they are questions which must be addressed in order to create music out of notation (RR01/03/88)

Although conductors have a certain latitude with regard to interpretation, I expressed the view that a composer's text has a basic integrity which dictates certain limits in interpretation. This view is expressed in my remark to a student whom I felt had gone beyond the limits of integrity:

> Changing the tempi at each section <u>can</u> be done very smoothly without making a 'cut'. Practice it with me if you wish. Otherwise, I suggest simply taking the piece all in one tempo. The 'cut' you propose interrupts the flow and is contrary to what the composer has indicated in the score. You can make certain changes to a score, but it has to be done with great care so as to maintain respect for the composer's intent. (RR17/03/88)

One excerpt from my reflective logs illustrates my values with respect to the importance of analyzing the source of problems which arise in beginning bands, and of exploring solutions to these problems through reflection:

> The comments you have made . . .are the sorts of comments that I am interested in having. I would like to know what it is that you heard, and how you analyzed the problems, and what you determined to be the cause of these problems. This type of analysis will help you to discover how you can best deal with error. Sometimes the solution will only be achieved as the technique of the student improves, but sometimes it can be achieved right from the start - for example when it is a question of concentration. It is a good idea to try to distinguish between the two types of problems. (RR01/03/88)

However, exploring the causes of problems was simply a first step. Once the conductors had begun to develop their musical ideas and to be aware of them, and to analyze the potentials and problems of the players, the vital next step was <u>action</u>:

> The next step is to discover what techniques can be used to <u>insist</u> upon having students play the way you want." (RR01/03/88)

Students' reflective logs: Towards the exploration of meaning through reflection

By reflecting, in writing, on their experiences in the practicums, students had the freedom, and the opportunity to articulate, and so become aware of, their responses to the features of conducting/teaching practice in settings with inexperienced instrumentalists. This reflective activity helped them to get in touch with their knowledge, and to understand its application in practical situations. It allowed them to begin to glimpse the magnitude of the tasks involved in this complex professional field. Extracts from students' reflective logs are drawn at random by theme, and are presented here to illustrate the scope and variety, commonality and differences of their responses, to their practicum experiences. I have assigned pseudonyms to all six student conductors, and have referenced their reflective logs as follows:

Nick	(NRDay/Month/Year)	NR = Nick's Reflections
David	(DRDay/Month/Year)	DR = David's Reflections
Betty	(BRDay/Month/Year)	BR = Betty's Reflections
Laurel	(LRDay/Month/Year)	LR = Laurel's Reflections
Susan	(SRDay/Month/Year)	SR = Susan's Reflections
Edward	(ERDay/Month/Year)	ER = Edward's Reflections

a) Social issues

The students' reflective writings allowed them to reflect upon their personal responses to situations in which their peers looked to them for leadership. 'David', who considered himself a shy, inarticulate person, and nervous as a performer on his instrument, was pleased to discover his 'voice' as a conductor in his first rehearsal effort,

> . . . today I was surprised to be comfortable in front of people.. . .
> It's funny, because I felt that it was natural for me to be conducting,
> and I liked that. (DR02/02/88)

and 'Betty' had a similar response to her first practicum of the semester:

> I felt quite comfortable once I got going. I felt like I really knew what I was doing and that I could hear things much more easily (BR02/02/88)

In her second practicum, however, she had quite a different response, and seeks an explanation:

> It's funny how one tends to feel more nervous the second time around! I wonder why that is? I think it's because we set standards for ourselves after our first attempt. I often feel that "I have to do as well or better" than the last session. (BR11/02/88)

Edward, reflecting upon his first conducting experience, was the only student who viewed himself from the perspective of the group:

> First time ever conducting a real group . . . I felt nervous, quite nervous, but it was controllable. I think that for the most part I looked confident to the group.

He was surprised to discover how aware he was of himself as he stood on the podium:

> I didn't anticipate having to pay attention to my own feelings while I was up there, I only considered the task of conducting, listening and reading - it was a bit of a shock at first.

b) Time as a variable

The conductors quickly became aware of the element of time as a factor in accomplishing musical goals. 'Betty' talks about the need to decide how much time to allocate to the various rehearsal activities she had planned:

> Warm-up: I didn't want to spend too much time on this because I wanted to work on my piece. (BR02/02/88)

Early in the semester Nick reflects on the effect of 'time', as a factor in the achievement of his rehearsal goals,

> I was able to get them to play a little bit like the styles I asked, but unfortunately time ran out. (NR04/02/88)

and a little later, considers how he ought to manage this constraint:

> With the semester closing quickly, I think I'll now have to be stricter with the group (NR10/03/88)

David reflects upon the issue of 'time' with respect to the interdependence of the members of the ensemble. He recognizes the problems posed by late arrivals, and makes a decision about how he will handle this issue in future:

> I wanted to start the class at 1105 but half the class wasn't there and the other half wasn't ready, so that cut (sic) my plan and even at 1110 people weren't ready. Next time I will start without waiting for the "retardataires". (DR11/02/88)

c) Technical issues

Assessing the potentials of inexperienced players to execute any musical figure is a critical factor in the establishment of leadership, the development of players' technique, and the pursuit of musical goals; itwas an issue which I stressed repeatedly in my reflective logs. Without proper consideration of these issues, musical goals are compromised, and leadership is compromised. The students' logs reflect a variety of approaches to the issue of players' potentials for performance, and to the significance of this matter of the success of rehearsals. For example, David assesses the group's potentials for achieving satisfactory tuning very early in the semester, and decides that this is something which can be postponed to a later date, after they have obtained some proficiency on their instruments:

> And I think that it isn't worth spending time (for now) on tuning, only if there are extremes of poor intonation. They still don't have enough control on their instruments to spend this precious time. (DR11/02/88)

Uncertainty about the root causes of technical difficulties makes it difficult for conductors to devise effective strategies for resolving problems. Laurel's reflects this uncertainty as attempts to determine the causes of problems , suggesting on the one hand that the problem could be traced to a lack of concentration,

> . . .I think it was just a question of attention. Some of the clarinets were in the moon. . .(LR28/01/88)

and on the other hand that the source of the problem was technical:

> I found that the clarinets had trouble sometimes with their fingering; they need more practice at this level. Often they didn't cut with me but I found they were willing. (LR28/01/88)

Conductors can seek solutions to problems of execution only if they learn to identify the problems, and analyze their causes. Five weeks into the semester Nick reflects (in writing) for the first time on the root causes of poor precision:

> The saxophones were sometimes not together, resulting from their inexperience on the instruments. The other instruments, like clarinet and flute were not together. . . [it] really is due to lack of concentration. (NR01/03/88)

Edward reflects upon possible explanations for what he perceives as improved clarinet playing, and he looks to me for confirmation. As before, he exhibits the capacity to view his actions from the perspective of the players:

> Clarinets are <u>much</u> improved in sound and intonation and <u>posture</u>. Is it their own discipline or do I scare them so they play and sit properly? I'm curious to hear your opinion. (ER09/02/88)

Susan reflects upon the necessity of anticipating technical problems, and demonstrates that she is developing strategies to deal with them:

> As you told me, it will be interesting to ask the clarinets to play one after one. Some can play it some cannot. That will help me to see who can do it. Then I will work more with people who need to be taught. (SR03/03/88)

Betty also demonstrates an analytical approach to issues of technical limitations when she reflects not only upon the root causes of error, but also upon strategies for dealing with them:

> I <u>did</u> hear several mistakes coming from the bassoon but I didn't want to push the issue since she's still trying to learn it. I'll give it more time. (BR11/02/88)

Nick reflects not only upon individual technique, but upon 'ensemble technique', that is, the skills involved in group performance:

> My goals this week remained the same as the last assignment, i.e. group control, responsiveness to the conductor, and playing together. (NR16/02/88)

The extracts cited above show a variety of reflective thoughts concerning issues of a social or technical nature which the student conductors encountered in their practicum experiences. These next extracts are presented to reveal the scope and variety of the student conductors' reflections on artistic issues.

d) Artistic concerns

Student conductor/teachers develop their rehearsal approaches through contemplation, exploration, and articulation of their artistic goals. For example, Nick reflects on his philosophical position regarding the importance of balancing 'technical' work with 'expressive' work:

> This week, however, was spent on one single piece of music, instead of exercises. This allowed the group to see what the purpose of my goals were for. In general, introducing a piece of music exterior to the exercise book being used refreshes the students' interest in the program, and demonstrates to them that exercises are not the only thing in music. (NR16/02/88)

The expressiveness of a musical score resides in how the musical elements are combined, and conductors interpret the text's expressive elements and set standards of execution according to their purposes and experience. Through reflection, Betty contemplates the success of her rehearsal,

> . . .found that the piece sounded much better at the end of the session than it did at the beginning (BR11/02/88)

but she does not suggest (in writing, at least) the reasons for this success. Edward, on the other hand, not only assesses the quality of execution of a piece he has been working on, saying that it

> went surprisingly well. (ER09/02/88)

but, he takes the next step, and reflects critically upon how he could have improved the performance. He articulates specific strategies (namely devices which manipulate timbre and volume) for bringing out the expressiveness of the piece,

> I know now what I should have done. Alternate groups of clarinets by phrase and not by bars: having only 1 trumpet play in 'B' phrase where Group I has melody, having the flutes play up an octave. (ER09/02/88)

and he reveals a specific plan of action:

> I would like another chance to work on the Barcarole the next time I conduct, so I can try some of the above mentioned things, as well as some phrasing ideas. (ER09/02/88)

Laurel reflects critically upon her concept of style for a piece she has been working on,

> I felt that in this piece the articulation was too heavy; for example, the quarter notes were not light enough for me. (LR09/03/88)

and Susan wonders whether the *tempo* she has chosen expresses the music appropriately:

> Do you find the tempo too slow? I'm not sure; a bit faster maybe? (SR22/03/88)

Susan's response to this piece, whose *tempo* she is reconsidering,

> I love this piece; it is peaceful . . .(SR22/03/88)

suggests that she is working out how she will use *tempo* to help express that 'peacefulness'.

Summary of the value of students' reflective logs

The features of conducting/teaching practice, and the situations which arise in rehearsals may be viewed through these reflective logs. The cited thematic extracts, reveal that student conductors experience and reflect upon a variety of concerns, and that they do so in their own unique, individual ways. The extracts demonstrate that students construct meaning of the musical text, in a situation which has social dimensions, and that they are mindful of the constraints of time and expertise.

Through the presentation of selected excerpts of student conductors' written reflections-upon-action, this section has illustrated some of the features of

conducting/teaching practice, and the processes of students' reflection upon practicum experiences. It has described some of this detail in order to set the context for what follows. In the next section, episodes from Nick's practicum experiences will be presented in the form of protocols from his videotapes. I will describe the settings, give the musical examples and their analyses, and will demonstrate how he reflects-in-action.

Analysis of the data

In the previous section, I described the physical setting, the participants, and the organization of the instrumental conducting course; I have shown how the practicums were organized to provide music education undergraduates with opportunities to discover the features of conducting/teaching practice in beginning band settings. I have described the purpose, the circumstances of collection, the nature, and the value of the exchange of reflective logs between the students and myself, and I have used excerpts from the logs to illustrate some of the features of practice. In the course of that description, I explained briefly the purpose and use of the videotaped practicums as a medium for reflection upon action. In this next section, I will turn to the videotapes to describe reflection-in-action of one student conductor, whom I will call 'Nick'. I will use selected excerpts from his reflective logs, where appropriate, to support my claims about the reflective process, from his post-practicum perspective. I will outline the steps involved in a reframing sequence in rehearsal situation, propose its usefulness as a scheme to interpret and illustrate the reflective process at work. I will interpret Nick's gestures, language, and rehearsal approaches, as I describe how he goes about shaping musical meaning.

The videotapes

The visual record of Nick's practicums was collected by a portable Sony videocamera, using 16mm cassette, which was set up at the rear of the rehearsal room. I transferred the 16mm tapes to VHS format when I reviewed Nick's practicums and added to my reflective logs. The videotapes provide a qualitatively unique type of data, which complement the data collected in the form of written journals. They form an audio-visual record of the language, gestures, and rehearsal approaches conductors employ to construct musical meaning in rehearsals. Upon questioning, Nick said that he did not feel intimidated by the presence of the videocamera, and he felt that it did not significantly affect

his actions during his practicums. None of his (or any of the other five conductors') reflective logs mention the effect of the videocamera's presence.

Method of transcription

To produce the protocols for Nick's practicums, I transcribed the VHS format videotapes by viewing them on the television screen, and by writing down every one of Nick's utterances. The equipment allowed me to rewind, review, and re-examine any event an infinite number of times, and made it possible for me to reflect on, and describe, Nick's verbal communications, tone of voice, gestures, and interactions with the players, the musical score, and the events of the rehearsals. When his words were obscured by other sounds, or by his quick delivery, I simply indicated "unintelligible" at those points in the transcript. I indicated pauses in his verbal communications ellipses to capture those moments when he seemed to be searching for what he wanted to say next.

A total of seventy pages of transcripts were produced; from this mass of data I selected three short episodes, each lasting no more than ten or so minutes. In these episodes, presented later, Nick's words are highlighted in 'bold' text, and my descriptive remarks are in plain text within parentheses.

Reframing: Towards developing a scheme for interpreting the processes of reflection-in-action among conductor/teachers

When conductors enter rehearsal situations, they draw on what Schön (1987) would call their repertoires of "examples, images, understandings, and actions". (p.66) That is, what they understand from their experience guides them as they create, modify, improvise, or otherwise bring into play approaches which will help them to do what they need to do, namely, get a group of individuals to collectively bring a musical text to life. Student conductors' reframing strategies are provoked by their reflection-in-action (or, the need to responses to the perceived "back talk" of practicums). These strategies,

communicated through explicit behaviours such as linguistic communications, rehearsal devices, and gestures, function transactionally as reflection and as response. Conductor/teachers' strategies a) reflect their experience, skills and knowledge, and familiarity with the cultural milieu of the instrumental ensemble, and b) respond to the consequences of players' error, inexperience, undeveloped skills, and unfamiliarity with the cultural milieu of the instrumental ensemble.

Reframing is described here as a four-step, sequential, repeatable process whose externalized elements are interpreted, or 'read' by the musicians (and, therefore, may be interpreted by an observer) as they strive together for musical coherence. Using this four-step sequence as an interpretive scheme it is possible to glimpse the processes by which student conductors construe meaning in the action of the rehearsal.

Step One. Recognition & Identification of "back talk"

The student conductors come to their practicums with plans for the text's realization. They enter into what might be described as a "conversation" with the rehearsal situation, anticipating the needs and the potentials of the group, and responding to the sounds the group produces. As the group begins to play, the conductors compare the actual sounds with their 'imagined' sounds, adopting an active stance of continuous reflectivity, asking themselves such questions as: "What's happening here?" or, "What was that I just heard?" One type of response might be: "They are not playing 'together'", while another type of response might be: "I expected their *attacks* and *releases* to be ragged, but their ensemble playing is really much better than I expected it to be, considering their limited experience." Such questions and their responses are formulated while the sounds are unfolding; this activity is at the core of reflection-in-action.

If conductors' 'ideal' concepts have not been formulated (eg. they did not prepare the score), or if they have been only vaguely formulated (eg. they did not prepare the score sufficiently), recognition of the quality of the "back talk", or "conversation" may be

difficult, or even impossible. Without recognition of "What's happening here?" or "What was that I just heard?", no identification can take place, and error, as well as excellence, may pass without acknowledgement. With faulty recognition of what is occuring aurally, incorrect identification may result, skewing the conductors' subsequent responses, and possibly, misplacing their focus of attention.

For instance, the imprecise, or ragged, execution of a passage might be misinterpreted as a problem of inattention, rather than as a lack of physical control over the instruments. Such a misinterpretation of the problem can lead to the formulation of inappropriate reframing strategies, such as insisting that the players do something they are not physically ready to do rather than devise schemes to help the students become physically prepared. In such a case, the wrong issues may be identified and educational goals may be delayed. Through reflection- in-action, practitioners have opportunities to become skilled at identifying the source and nature of problems and at choosing appropriate responses.

Step Two. Assessment

Once the nature of the "back talk", has been recognized and identified, or labelled -- as a problem of attention, for instance -- an assessment of its significance can then proceed. A pertinent question might be: "What does this lack of attention to precision mean in terms of my musical goals?" At this point, it might be appropriate to interrupt the playing, in order to strive for better precision. Or it might be possible to remedy the problem by giving more precise baton gestures while the performers continue to play. In any case, an assessment of the significance of the situation leads to a decision, which must be devised on the spot.

With incorrect identification, a faulty assessment may result, and a course of action which is inappropriate may ensue. A correct identification, on the other hand, allows for an appropriate assessment and an effective course of action.

Step Three. Response (or Action)

Recognition, identification, and assessment, may be followed by a question such as: "What should I do now?" One response is to do nothing, especially if the problem seems insuffficiently significant, or is deemed to be unsolveable at this particular moment; the other response is to do something, especially if the problem seems sufficiently significant to the conductor's rehearsal goals. If the choice is to do "something", there must be lightning-fast reflection upon the various possible courses of action, derived from an instant assessment of the abilities of the players, the time available, the level of difficulty of the problem, and so on. The choices are many and varied, and effective conductors call upon all of their imaginative resources and repertoires of exemplars and ideas to devise appropriate reframing strategies. Exemplars of approaches might include, for example:

(1) isolating and drilling the individual sections experiencing the problem

(2) using verbal imagery to better communicate the desired concept

(3) demonstrating the concept with gestures of the baton

(4) modelling (by singing, for example) the desired sounds

(5) improvising technical exercises to promote a specific skill

(6) reviewing posture, breathing, finger placement

Conductors' responses may be limited only by the extent of their repertoires and by their imaginative capacities, but they must respond with a strategy at the moment the situation demands it, even if the strategy is to ignore the matter for the time being. Conductors must make decisions quickly; they must demonstrate leadership to the players whose trust and cooperation are essential to the effective functioning of the ensemble.

Step Four. Evaluation

At this step in the sequence, an effective conductor reflects upon the consequences of the decisions taken in Step Three, and (1) attends again to the resultant "back talk", (2) assesses it, (3) reflects upon the results of the strategy, asking questions like, "What do I think about this now?" or, "Did my strategy have the desired outcome? and, (4) frames the next step (Now what?).

The "Now what?" question generates the need to decide whether to

(a) carry on with the next part of the rehearsal or,

(b) return to some aspect of the problem under review.

The decision to carry on with the next part of the rehearsal might be taken on the basis that (1) the results at Step Four were satisfactory for the present time, purpose, and circumstance or, (2) the results were less than satisfactory but it seems likely that this problem will only resolve itself over time or, (3) rehearsal time is running out and there are other, more important things to be done; and so on.

The decision to continue to work on the problem might involve the reframing of the approach, for example, "I tried 'modelling' last time; this time maybe I'll just try repetition of the passage". In this case, the four-step sequence is repeated: Step One (What was that?), Step Two: (What does it mean?), Step Three: (What should I do now?), and Step Four: (What do I think about this now?)

The reframing process, and the social dimension

In the course of formulating a reframing strategy, conductors may or may not explain to the musicians why they stopped, what they want, why they want it, how they propose to go about getting what they want. Furthermore, they may or may not share their evaluation of the players' response (Step Four). If they share any or all of the steps with the players, (for example, "It's a lot smoother like that" [Ref. NV10.03.88]), they admit the players into the process of shaping the musical text, and the players are invited to

become aware of the importance of thinking about what they are doing as they are doing it. That is, the players also learn to become reflective-in-action to to develop aesthetic sensitivity. Furthermore, through such sharings, the players can develop a sense of their conductor's standards of performance, aesthetic values, educational goals, and so on, and this knowledge can be transferred to future ensemble sessions with the same conductor.

If conductors fail to inform the players of their thinking, if they do not make explicit the processes by which they are shaping the text, the players are excluded as collaborators in the creative process. In this case, the effect on the players' committment to the ensemble and on their development as "expressors" may be negative, and educational and aesthetic goals may be compromised.

Summary

Reframing may be conceptualized as a sequence of steps which take place when conductors reflect on what they hear or observe, respond to the "back talk" of the practicum, and act according to how they understand its implications. It is a process which provides a lens through which to view the reflection-in-action of student conductors in an ensemble setting.

CHAPTER V THE CASE

Introduction to 'Nick'

'Nick' was one of the six music undergraduates enrolled in the instrumental conducting course. His program (Bachelor of Music, "Honours" in School Music), was designed to help prepare him to enter the teaching profession as a music specialist. At 25 years of age, he was a few years older than the other students in the class.

A Franco-Ontarian, he is equally at home in English or in French, although in his view, he is not totally comfortable using either language to express himself. He says that he often has difficulty finding the right words. He also feels that his written work is weak, but that his written English is better than his written French.

His major performing instrument is the electric bass. However, during his high school years he experimented with a variety of wind instruments, and found himself especially comfortable with the brass, many of which he has played on stage at one time or another. Much of his experience with the woodwind and percussion instruments was acquired in the undergraduate 'techniques' classes, and in the Lab Band. While he was a student in high school, his teacher allowed him to conduct his school band now and then. He has also conducted a community band of more mature players. His performance experience as a player, which includes concert band, jazz band, stage band and chamber ensembles, has provided him with a base of knowledge and experience about the way bands sound, and about rehearsal protocol.

Although these experiences had given him some familiarity with the "culture" of band settings - its language, norms, and rituals, its performance goals and practices, and its social dimensions, his conducting practicums with the Lab Band were his first encounters as a conductor of beginning instrumentalists. In this setting he was required to call forth the teaching skills and specialized knowledge which are essential to running an effective music class. Having done some arranging and composing for various

combinations of instruments, he was fairly comfortable handling transposition and score reading, and, in this respect he had an advantage over his peers in the conducting class.

Nick took his conducting practicums seriously; he participated enthusiastically in seminar discussions and could always be counted on to volunteer to help with any organizational tasks. Because of his background experience, his intention to teach instrumental music in a school after graduation, his serious approach to his course work, his reliability in submitting his reflective logs, and his accessibility after graduation, Nick seemed to be an appropriate candidate for this study.

Nick's reflection-in-action: reframing in rehearsals

Three episodes illustrating how Nick reflects in action during rehearsal are now presented and interpreted. The episodes were chosen for their brevity, the uncomplicated character of the musical examples, and for the features they illustrate. The episodes contain a variety of conducting/teaching concerns and a number of reframing strategies. First, the excerpts from the transcripts are cited, then the contexts in which they took place are described, along with examples of the musical materials which are the focus of the episode. An analysis of the musical example is offered, and its technical challenges and its possibilities for interpretation are discussed.

I then proceed to interpret the transcribed excerpt, showing how Nick goes about assembling, generating, constructing musical meaning, as he maps back and forth, from the notation to the ensemble, eliciting responses from the players, employing various devices to create the kinds of musical sounds he wishes to hear, and adjusting his responses to the realities of the situation.

A note about the musical examples

The musical examples cited in the three episodes which follow are taken from The St. George Band Method: A method for the group teaching of diverse band instruments

(MacLaughlan, 1973). Its musical examples simultaneously teach notation and instrumental pedagogy, and its many pieces provide the students with opportunities to experience the performance of music of various styles, keys, metres, forms, and orchestration. At the same time, the musical materials contain a wide variety of conducting challenges, including variety of metre, styles, and pieces beginning on anacruses. There is an individual book (part) for each of the band instruments, and one book (score) for the conductor/teacher.

Episode no.1: the context

Before coming to this first practicum, Nick prepared himself for the rehearsal situation, analyzing the score and framing his approaches to rehearsing it. His reflective journal reveals how he prepared for his first experience with the musical and social tasks of the practicum:

> "The last few days I prepared myself psychologically to face the group, and rehearsed mentally, explaining how I would want the group to play." (NR26/01/88)

In this practicum Nick had approximately 25 minutes in which to work through some or all of his rehearsal plans. As the only person in a position to sense the pace and progress of the rehearsal, and the mood of the class, he had the freedom to improvise, explore, experiment, solve problems and generally run the rehearsal in his own way; this he could do within the constraints of time, within his own and the players' limited technique, and according to his understandings of the collaborative nature of the practicum. He prepared several short musical exercises which were appropriate to the capabilities of the players, and he brought to the practicum all of the practical knowledge, skills and artistry at his disposal. Temporarily adopting a leadership role, he conducted a group of his peers, who had been in possession of their instruments for about two weeks.

Being scheduled for the second half of this practicum, he had to deal with problems which arose from any difficulties the players might experience from having to adjust to two conducting styles within a 50-minute period. My reflective comments to Nick after this practicum, touch upon the problem of adjustment:

> "they are expecting the last note to be longer, I think. They also have to get used to you after adjusting to 'Susan.'" (RR26/01/88)

My interpretation was that whereas 'Susan' may have held the notes a little longer before "cutting them off", Nick was "cutting them off" more quickly. My empathy was for the players, for whom this seemingly small difference in "cutting off" can be disconcerting, especially when they are learning to play a new instrument, read the music, and watch the

conductor, all at the same time. I felt that it was important for Nick to understand the problem from the players' point of view. With this in mind, I now present the first episode illustrating Nick's reflection-in-action.

Episode no.1: analysis of the text, and its performance possibilities

One of several short texts Nick has prepared for today is a four-bar musical exercise which has the band divided into two pitch groups.

In this musical example, (Figure 5), presented in *concert pitch* , Group I (flutes, oboe, bells, horns) plays the upper line and Group II (clarinets, trumpets, trombone, euphonium, tuba) plays the lower line.

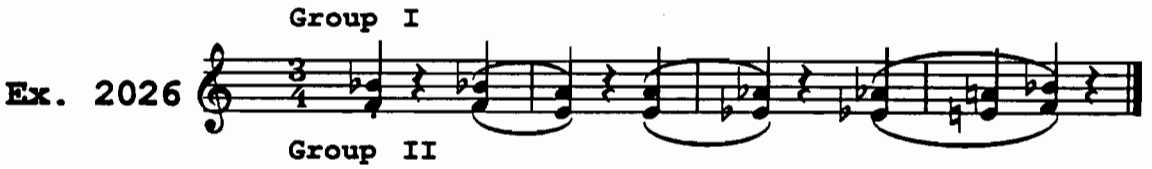

Figure 5

Exercise #2026, The St. George Band Method

Each group uses three notes, encompassing the range of a major second. The melodic feature is chromaticism, and the harmonic feature is 'parallel', or 'open', fifths and fourths. Each instrument works within a range which is comfortable physically, and the short length of the exercise is appropriate to beginners who have not yet developed physical endurance. The absence of physical stress permits the players to focus on (1) playing together as an ensemble, (2) following a conductor, (3) learning to play three consecutive notes of the chromatic scale, and (4) on combining two articulations (staccato and slur). This exercise challenges the players to observe the stylistic demands as they produce the correct pitches and rhythmic groupings.

The music's expression, or "meaning", resides in how the features of the notation combine and relate to one another; how these relationships take on meaning is constituted by the perceiver. As the conductor, Nick has already begun to perceive these relationships and to construe their meaning during his preparations for rehearsal. During the rehearsal, the players form their own perceptions of these relationships, but are guided by Nick's interpretation, as together they attempt to come to some agreement on the execution of the notation. The expressive features of exercise #2026 lie in the combination of quarter notes and quarter rests, staccato notes and slurred notes, and slurs across the bar lines.

The conventions of 'performance practice', as established by cultural traditions, require (1) the correct production of pitches, rhythms, and articulations, (2) the simultaneous execution of *attacks* and *releases*, so that there is vertical precision, (3) observation of the stylistic expression marks, namely the distinction between the notes which are detached from one another and the notes which are connected to each other with a slur. Furthermore, convention dictates that the ends of the slurs should be performed gracefully, that is, the players should play the last note of each slurred group with a little less volume and a little shorter than the written duration. In the rising slurred figure at the end of this exercise, the players, especially the brass, must resist the inclination to increase the volume on the ascending musical line; they must, instead, decrease it slightly if they are to execute the figure gracefully.

So, in spite of the apparent simplicity of this short text, there are inherent technical and artistic elements which must be understood within some common conceptual framework by each of the participants if they are to communicate the music's expression effectively as an ensemble. Nick's understandings of these elements, and of the relative importance he assigns them, and his awareness of the potentials of the players to handle them with style, precision, and grace, are reflected in his emphases and approaches during rehearsal.

While each player who reflects on the matter, is likely to have a unique notion of what is stylistically correct, or appropriate, the execution of all of the passage must be negotiated together with the conductor. Wrong notes, wrong rhythms, inattention to, or differences of articulation, or careless performance, would result in musical "miscues" which would obscure the expression of the music. Nick must find ways of achieving a rendition he finds excellent at the most, or tolerable at the least. The technical demands of the text lie within the physical capabilities of beginners; the execution of the notation requires concentration, aesthetic awareness, and a sensitivity to what the other players are doing.

In this episode Nick attempts to achieve musical results with the group according to standards of performance practice which he has already established. To achieve the musical goals he has conceptualized, Nick will reflect upon the "back talk" of the rehearsal, and will reframe his rehearsal approaches as he deems necessary.

Episode no. 1: reframing (Ref. NV26/01/88)

In this episode, Nick uses direct verbal instruction, modelling, and baton and other physical gestures, to communicate his concept of the detached style. He will assess what he hears, and will reframe his approach to get the vertical precision he wants. The extract from the transcript is first presented in its entirety to allow the reader to have an overview of the total length of the episode, and to see the format and substance of the transcribed materials. Nick's utterances are in **bold** script.

> (Looks at score) **Okay let's go to page two-eighteen please** (scans score quickly and makes a decision) **. . .and we will do. . . number. . .two-oh-two-six. Okay so I want the staccato notes like staccatos** (he looks at the group and makes a small choppy motion with his hand to show the style he wants) **and I want the end of the slurs together okay? so it goes dah dah-ah dah-ah dah-ah-ah.** (conducts himself, beating a pattern of three beats per bar, showing where the strong part of the bar is by giving a clear, vertical, downbeat on the first beat of each bar. He looks back and forth between the score and the waiting ensemble as he sings the notes.) . . .

Okay? In three-four again? (raises baton looks at group, gives the upbeat. He stops them after the first bar by disrupting his baton pattern with a cutting motion) **Stop. With me please?** (He looks to the players on his left and conducts ex.#2026 again, this time going to the end.)

Good (he nods) **I think we've got a good group going this year. It's amazing. They're all cutting off together.** (looks at score) **Let's do twenty-twenty-eight** (ex.#2028), **and we'll do the more mixed rhythms here okay?**

Episode no.1: Interpretation

The citations below appear in order of their occurrence in the above-cited transcript excerpt. Nothing has been omitted or added. The citations are framed by my interpretation of the significance of Nick's language, gesture, and rehearsal approaches in terms of reflection-in-action. This episode begins with Nick communicating specifically where in the instruction book he wants to begin. Here he uses "let's" and "we", rather than "I", thus making use of a collaborative linguistic mode:

(Looks at score) **Okay let's go to page two-eighteen please** (he scans the score quickly and makes a decision) . . . **and we will do . . . number . . . two-oh-two-six** (ex.#2026). . .

In his next utterance, he adopts a more assertive stance as he states his conceptualization ("I want"), using a specific musical term (staccato) to communicate that concept:

. . . .**I want the staccato notes like staccatos** . . .

But here, his meaning is only partly clear. The term 'staccato' is an expressive term, meaning, literally, 'detached'. The details of its execution are subject to interpretation according to its musical context, the personal preference of the conductor, and the capabilities of the players to produce their sounds in that style. It is Nick's responsibility to know how it is produced on each particular instrument, and what it means to perform it as a group. In his verbal description of how he wants the notes to be played ("like staccatos"), Nick fails to take into account that each player may have a unique concept of what the term means. However, at the same time that his linguistic communication is somewhat incomplete, he gestures with his hand,

(he looks at the group and makes a small chopping motion with his hand to show the detached, bouncy style he wants) . . .

and he further illustrates how he wants the passage to be executed by giving verbal instructions about the ends of the slurred notes:

. . . and I want the end of the slurs together okay?.. .

Then to reinforce his musical concepts even further, he 'models' the whole exercise with his voice, as he sings the notes:

. . . Dah dah-ah dah-ah dah-ah-ah . . .

Figure 6 shows how Nick's modelling corresponds to the notation of exercise # 2026:

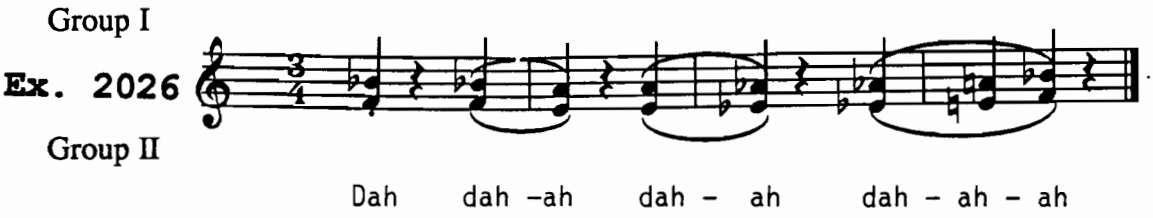

Figure 6

Exercise #2026, The St. George Band Method

As Nick sings these notes to illustrate the style he wants to hear, he

(conducts himself, beating a pattern of three beats per bar, showing where the strong part of the bar is by giving a clear, vertical, downbeat on the first beat of each bar. He looks back and forth between the score and the waiting ensemble as he sings the notes.)

Now, he is ready to listen to the group play the exercise. Until this point in the episode, Nick cannot know how it will actually sound, but he is about to find out. His language, and his baton and hand gestures, and his modelling technique have so far worked together to communicate to the group what he wants. He proceeds to point out the

time signature, perhaps as a reminder to the players, and he raises his baton as a signal that he is ready to begin:

> . . . **Okay? In three-four again?** (raises his baton, looks at the group, and gives the upbeat. The group begins to play on his downbeat) . . .

As soon as the ensemble begins to play, Nick encounters a 'conflicted' musical situation. This can be inferred by his disruption of his beat pattern and by his motions to the band to stop playing. He apparently is disturbed by something he hears. It may be that he recognizes that there is something which is anomalous, something which is at odds with his conceptualized version of how the notation ought to sound. Whatever the conflict is, it is unlikely that he predicted this specific occurrence of conflict it as he framed his approaches to rehearsal. So, it appears that he is dealing with a situation which is both unexpected, and 'conflicted'. He does not allow them to proceed:

> (He stops them after the first bar by disrupting his baton pattern with a cutting motion, and he tells them:) **Stop**

The players need to know why he stopped, and how he proposes to proceed. Nick must reflect on this instance of anomaly, and assesses its significance as he decides what to do next. He adopts a course of action - to to have them play the passage again - but his precise purpose in repeating the passage is not clear. At this point he merely says:

> . . . **With me please?** . . .(He looks to the players on his left and conducts ex.#2026 again.) . . .

As the exercise is played again, Nick has an opportunity to reflect upon the sounds he hears. At this point, a number of scenarios are possible: 1) he might hear something which he is not happy with, and decide to replay the passage again, possibly with different instructions for improvement (another instance of reframing); 2) he might fail to evaluate the results of his action (which was to have the players replay the passage "with him"), resulting in an incomplete reframing sequence; 3) he might evaluate the consequences of

his action and not share his evaluation with the group (failure to acknowledge the collaborative dimension); 4) he might both evaluate the consequences of his action and share it with the players, bringing them into the process of creating concensus (completing the reframing sequence, and acknowledging the collaborative dimension).

As this second hearing unfolds over time, he has an opportunity to reflect on the sounds, and to decide whether their execution is tolerable He could not have known in advance if the second playing would satisfy his concept or if there would be a need for further reframing. It seems, though, that Nick has decided that the conflict between his conceptualized sounds and the actual sounds has been resolved to satisfy whatever standard he has set for himself. This can be inferred from his explicit clarification of his original goal (cutting off together), and his verbal responses. He actually addresses his remarks to his supervisor, thus sharing his thoughts with the players only indirectly:

> **Good** (he nods) **I think we've got a good group going this year. It's amazing. They're all cutting off together**

By making explicit his response to the second playing of exercise #2026 Nick lets us know that he has reflected upon the sounds and is satisfied at the match between the ideal and the real sounds. However, he excludes the players somewhat from the event, referring to them in the third person.

Upon further reflection, Nick decides that he does not need, or want, to hear that exercise again, and he moves to the next rehearsal item. He reflects on what the group needs to know, and his direct verbal instructions inform them what he wants to do next, and what features (mixed rhythms) they are going to encounter:

> (looks at score) **Let's do twenty-twenty-eight** (ex.#2028), **and we'll do the more mixed rhythms here okay?**

And so the rehearsal proceeds, with Nick reflecting-in-action, responding to the situation's "back talk", reframing his approaches to achieve his musical goals, and using the resources of language, gesture, and rehearsal techniques to communicate his intent.

Episode no.1: discussion

Nick uses a variety of means to establish his leadership and to get his ideas across: context-specific language, collaborative and assertive stances, "modelling", appropriate beat patterns, and other gestures. Although Nick's reflective log suggests that he found himself "not as prepared as I would have liked" (NR26/01/88), it is clear that he has formulated some sort of an 'ideal' sound to which he compares the actual sounds as he reflects-in-action. Evidence of his reflection can be seen in his baton gesture when he disrupts his conducting pattern, in his linguistic communications ("Stop." and "With me please.").

When Nick says that he is satisfied with what the players have done, and that they are "cutting off together", his words communicate clearly that one of his musical goals was vertical precision at the ends of notes. But, he addresses these remarks to the supervisor, (that is, to me) who is sitting at the back of the rehearsal room, and the musicians must pick up his message only indirectly. This subverts his attempts to form a collaborative relationship, and suggests to me that Nick's focus is split by his uncertainty about his dual role as a student being evaluated, and as a conductor to whom the students look for leadership.

When he tells the players that he wants the notes to be played "like staccatos" his meaning is open to a variety of interpretations by the performers. The musical concept he wishes to communicate here could be more effectively expressed in terms of *duration* (short) and in terms of *i*magery (bouncy, or light, for example). He may be aware of this ambiguity of his language, because he follows up his verbal instruction with a modelled (i.e. sung) version of the passage, with baton gestures, and with other gestures of the hand, thus clarifying his intent.

Nick assumes a combined collaborative/leadership stance through the mode and tenor of his linguistic communications ("let's go", "we will do", "I want", and "with me,

please"), his frequent eye contact with the ensemble, and his direct verbal instructions ("Stop", and "I want the end of the slurs together.").

He is not fixated on the notation, but rather, seems to use it as a point of reference, like an aural map, as he refers back and forth from the score to the players, seemingly allowing the written symbols and the sounds he hears to guide and shape his thoughts and actions.

Implications for Nick

Nick's is already communicating his musical ideas, both separately and in combination, through language, gesture, and rehearsal devices. These repertoires cannot be learned from books; they are developed and articulated in experience, in response to actual situations of practice. Continued practical experience will present him with a variety of situations, making it possible for him to increase his fund of knowledge.

Nick bypassed the students, and addressed his evaluative remarks about their playing directly to me. This can no doubt be attributed to his awareness of his position as a student. It is important for Nick to address the musicians directly, so that a good working relationship will develop; this can be expected to happen if he reflects upon his role in the rehearsals.

Episode no.2: context.

This episode occurred in Nick's first practicum, shortly after episode no.1, and, therefore, shares the same context. This extract was chosen to illustrate a situation of conflict which is unique to ensembles of inexperi-enced players, namely difficulty in producing sounds.

Episode no.2: analysis of the text, and its performance possibilities

Exercise #2029, (Figure 7) is another short musical text in which the band is divided into two pitch groups. I will analyze the text's features, and interpret its performance possibilities.

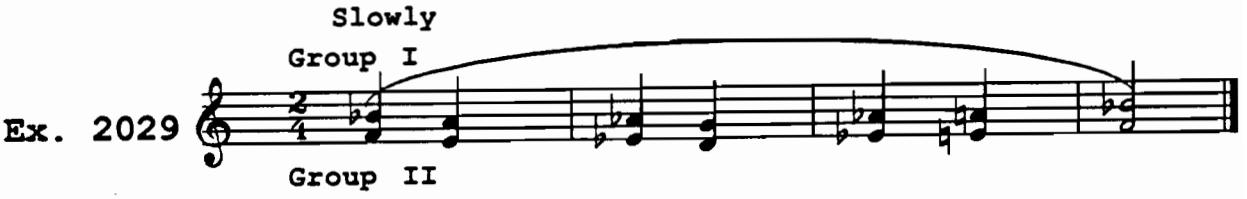

Figure 7

Exercise #2029, The St. George Band Method

This four-bar exercise adds a new note to each instrument's repertoire of notes, and allows each player to experience, as a group, the new fingering (or slide position) in the context of a passage of slurred quarter notes. In a prefatory statement, the author suggests that the players should try to play slowly and smoothly, on one breath, with no movement of the tongue or lips. (Only the trombone is always expected to detach the notes to avoid producing a *glissando*.) This suggestion is aimed at developing physical skills, or 'technique'. The students are asked to maintain a stable embouchure and steady air stream, while changing the pitches with the fingers (or hand). This prefatory note also anticipates the difficulties which might be encountered by the players of the flute and tuba who are

likely to run out of air before the end of the exercise. It suggests that they try to breathe through the nose, as needed, so as not to disturb the position of the lips. These suggestions are in the teacher's book also, and are aimed at helping the conductor to anticipate problems, and to prepare rehearsal approaches accordingly.

The players must try to move smoothly from note to note, ascending and descending a segment of the chromatic scale, as they get accustomed to moving the appropriate fingers, or placing the slide in the appropriate position. As the students increase their knowledge of the chromatic scale, they will be able to perform music with an increasing range of harmonic and melodic expression. As wind players they must also learn how to guage the rate and quantity of the exhaled air stream so that they can eventually perform the whole sequence of notes on one breath. The notes of the exercise are in a comfortable physical range for all of the players, so that there is little strain on their facial muscles.

Although this musical example has limited scope for expressiveness, one could say that smoothness in executing a sequence of notes is one of the fundamental elements of expressive performance, and that the skill of playing smoothly can be applied to any passage where smoothness is an expressive feature.

Episode no.2: Reframing (Ref. NV26/01/88)

In this short episode, Nick will reframe his approach to rehearsing exercise #2029 in response to a technical problem encountered by the tuba player. The excerpt from the transcript is first presented in its entirety to allow the reader to see the total length of the episode, its format and its substance. Nick's utterances are in **bold** script.

> (Looks at score and says) **Okay at the bottom of that page you'll see your new note.** (He puts his finger on the score where the notes are.). **Okay? Group I its your D and group II it's your G. . . . Everybody knows the fingering ?? . . .So everybody knows our first note? Let's do twenty-twenty-nine** (ex.#2029) **then okay?** (Looks at group. Looks at percussion) **No drum part, relax for now. . . Concentrate on what we're doing and that will be fine. In two-four, slowly, and all slurred.** (Gives upbeat and beats with

> liquidity of motion to show the slurred style of the passage, looking back and forth from score to players, and looking up for the last note which he holds, then cuts. Keeps baton raised as if to start) **Let's try that again? ...see if we can get the tuba down with us..** (looks to back of ensemble where tuba player sits, smiles and nods) **okay...fine.. Ready? Just remember** (to tuba) **think the note and it will come out clearly.** . . (Gives prep. beat and beats slowly and smoothly). **That's better... (gestures with baton and looks at tuba player) that's better... it's coming. Just a little practice and that'll be fine.**
> **Let's see. . . go to page. . .** (he ponders his next move)
> **skip page two-nineteen altogether and go to two-twenty.**

Episode no.2: Interpretation

Nick begins this episode by reviewing with the students the information he thinks they need in order to play this exercise. First, he tells them the location of the 'new note', the pitch names, and reminds them that they must know which fingering to use:

> (Looks at score and says) **Okay at the bottom of that page you'll see your new note.** (He puts his finger on the score where the notes are.). **Okay? Group I its your G and group II it's your D. Everybody knows the fingering ??**

(The students' books illustrate the fingerings/positions for each new note.) Next, he tells them which exercise he wants to play, and lets the drummers know that there is no part for them in this melodic exercise. This is important for the drummers, who might search for music which is not there, and illustrates Nick's awareness of their presence.

> **So everybody knows our first note? Let's do twenty-twenty-nine** (ex.#2029) **then okay?** (Looks at group. Looks at percussion) **No drum part, relax for now.**

He then tells them what what they must do (concentrate) and what he expects to hear (slowly, and slurred). Again, he uses his collaborative (we) voice:

> **Concentrate on what we're doing and that will be fine. In two-four, slowly, and all slurred.**

His baton style reflects the connected style of the notation, and he maps back and forth from the notation to the producers of the sound,

> (Gives upbeat and beats with liquidity of motion to show the slurred style of the passage, looking back and forth from score to players, and looking up for the last note which he holds, then cuts...

but, after the 'cut', instead of lowering his baton, he keeps it in the air,

. . .Keeps baton raised as if to start)

indicating with this gesture that he has heard something disturbing; we wait to see if he is going to say what the problem is, and to find how he is going to approach its resolution. He uses his collaborative ("let's try", "we", "us") stance:

> **Let's try that again? ...see if we can get the tuba down with us..** (looks to back of ensemble where tuba player sits, smiles and nods) **okay...fine.. Ready?**

He has identified the problem as being a technical one, and has located it in the tuba section. He has reflected on the significance of the problem and has decided not to let it pass. He chooses to act, by trying the passage again, to see if the tuba player can produce the notes on this second playing. He suggests to the tubist:

> **Just remember** (to tuba) **think the note and it will come out clearly.**

Thus his assessment of the situation results in two components of action, reframed in response to the demands of the moment: 1) to play the passage again and 2) to make a specific suggestion to the tuba player. He has the group play the exercises again, listens to the sounds, evaluates what he hears, shares his evaluation, and assures the tuba player that improvement can be expected:

> (Gives prep. beat and beats slowly and smoothly)
> **That's better...** (gestures with baton and looks at tuba player) **that's better... it's coming. Just a little practice and that'll be fine. .**

He now could decide to repeat the exercise to see if the tuba player can play the notes more securely, or he could move on to something else. To decide what to do next, he needs to reflect on what he has accomplished so far, what he wants to accomplish, and how much time he has available. He reflects on his options,

> **.Let's see. . . go to page. . .** (he ponders his next move)

and he makes a quick decision:

> **skip page two-nineteen altogether and go to two-twenty.**

Thus, Nick moves to the next item and the next, choosing his actions in response to the situation's "back talk", and according to his assessment of the pace and progress of the rehearsal.

Discussion

Nick's baton gestures simultaneously communicated and reflected the slow, smooth style of exercise #2029. He gave the players clear preparatory gestures, and when he held his baton in the air after the 'cut', it served as a non-verbal signal that he had something to say. These behaviours suggest to us that Nick was thinking about what he was doing while he was doing it.

In this episode, Nick recognized a situation of conflict, namely that the notes in the bottom octave were not sounding. Nick indicated his sympathy with the tuba player's problems with smiles and nods, and he reassured him that it would "come" with practice, advising him to 'think' the notes. This friendly advice, however, merits closer attention.

Because the tuba is the lowest instrument of the band, and forms the foundation of the harmony, it was essential that Nick call forth his knowledge about the peculiar difficulties of sound production on the tuba, that he assume his responsibility as the teacher, to help the beginning tuba player with suggestions about playing technique. By contrast, if one of six or so clarinet players was having difficulty producing a particular note, Nick's attention, while important, would be less critical. By giving the tuba player specific advice, and a moment or two of personal attention, Nick might have been able to help him to understand how to approach the production of the notes. Some examples of specific suggestions, any one of which would have allowed Nick to reframe the tuba player's problem more effectively, were contained in my post-practicum reflective notes to Nick:

> you told him to "think the notes". He needs more information than that. You can be more specific, e.g.: "keep the air moving and simply move the valves to change the notes. Take a breath where necessary. Leave out a note if you must, etc. (RR26/01/88)

So, while Nick's reframing sequence appears to have been complete, inasmuch as he seemed to have a 'sound' concept, he reflected on the actual sounds, recognized a conflict and pinpointed its source, he assessed its significance, and he took an action to deal with it. That is, he gave advice to the tuba player, and he had everyone re-play the exercise to see if the tuba player could produce the notes by 'thinking'. He evaluated the re-playing of the passage, and shared his response with the tuba player. The weakness in the sequence was in his failure to be more explicitly helpful to the tuba player.

Implications for Nick

Technical proficiency is not an 'end' in itself. The value of developing proficiency lies (1) in what it allows the players to do, and (2) in what it means in terms of the formation of a teacher-student relationship based on trust in the teacher as a source of knowledge, and as a provider of leadership. Proficiency in technique permits the ensemble to perform musical works in a more aesthetically satisfactory manner, and it makes possible the performance of works of increasingly greater length, complexity, and musical interest. The players' confidence in Nick's knowledge of instrumental technique is critical to his ability to develop an ensemble which functions as a tight, collaborative unit.

Episode no.3: context (Ref. NV04/02/88)

In this episode, extracted from the transcript of Nick's second practicum, Nick conducted during the first half of the rehearsal. His goal for this practicum, as stated in his reflective log was to "get the group to perform as a single unit". (NR04/02/88)

As the time for the class draws near, the players are seated, and are talking with one another or making sounds on their instruments as they wait for the rehearsal to begin. Nick walks to the podium area, and waits politely for a few seconds, adjusts his stand, then raises his left hand for silence, indicating that he is ready to begin. The group is quiet immediately.

It is clear from what Nick has written on the board before the start of rehearsal that he has framed some goals, and devised some approaches for achieving them:

Warm-up #2062
1. Whole note - cut
2. Slurred
3. Tongue each note
4. Staccato

In designing this warm-up, Nick has improvised a set of musical activities based on existing printed materials. He has created opportunities for himself to conduct in different styles, and to practice different gestures reflecting those styles. In writing the 'warm-up' on the board, Nick lets the musicians know that he has framed his approach to the beginning of this practicum by planning activities which will 1) use the notes of exercise #2062, 2) require them to execute these written notes in various ways, and, 3) "warm up" their muscles, and get the players working and thinking like an ensemble. Because each of the four categories of execution will use the same sequence of pitches, the performers should be able to concentrate more on watching and responding to him and less on looking at the printed page.

It is not absolutely clear what he means by "Whole note - cut". His concept could be more clearly expressed in notation rather than in language. (Is each whole note followed

by silent beats, or does each whole note follow the preceding one with only a 'cut' for a breath?) His third warm-up item (*tongued*) - is also not quite clear. (*Whole notes* and *staccatos* are also *tongued*). During the course of rehearsal we will see if and how he clarifies his intentions.

Episode no.3: analysis of the text, and its performance possibilities

As in the previous two examples, exercise #2062 (Figure 8) has the band divided into two pitch groups.

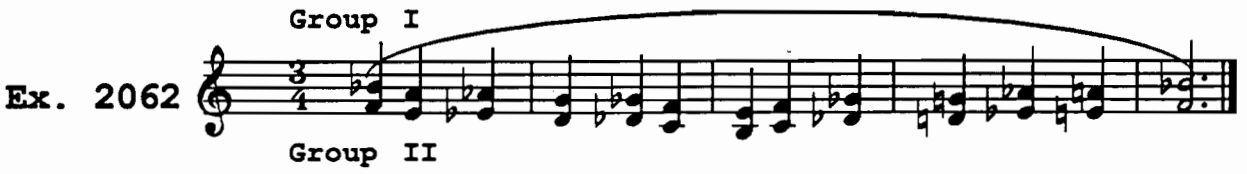

Figure 8

Exercise #2062, The St. George Band Method

The players descend and ascend chromatically through the interval of a diminished fifth. This exercise is designed to help the students to 1) reinforce the manipulation and co-ordination of the fingers/slide for each of these notes, 2) understand how the design of their instrument relates to pitch changes, (as the fingers/slide manipulate the descent, the instruments' air columns are lengthened and the pitch descends by semitone; conversely, as the fingers/slide manipulate the ascent, the air column becomes shorter, producing a series of chromatically ascending pitches) and, 3) reinforce the concept of changing pitches without undue facial movement.

Episode no.3: reframing

The extract from the transcript of Nick's second practicum is presented first to allow the reader to see the total length of the episode, its format and substance. Nick's utterances are in **bold** script.

> **Let's start with two-oh-six-two** (ex.#2062). (He gestures to the board where he has written out what he plans to rehearse) **It's on your page two-twenty-five. We're just going to start off with a whole note and then cut...**(points to first item on list) **to get everybody working together as a unit. I don't want people lagging off when I cut... so you can get used to watching the conductor. Okay so let's start -- Group I... Group I B flat, and Group II have F**
>
> (Responds to clarinettist's query) **Yeah, that's your G. Ready? First note please** (raises baton) **Let's just hear the first note.** (Gives an upbeat and a fermata. Looks around, shakes his head and says) **Everybody** (He cuts the sound) **Let's try that again. Everybody together first note okay?** (conducts a 3-step pattern: upbeat, fermata, and cut)
>
> **Okay let's try out the exercise now.** (Conducts the first two notes in same 3-step pattern) **Okay let's start together also eh? Next note** (conducts next 2 notes as before. After the second note he extends his baton arm towards the horn section where someone has cut the note long everyone else.) **You're lagging okay? Just watch that.**
>
> (Gives the next fermata). **Let's try that one again. Together** (gives the 3-step pattern. Shakes his head) **One more time. . . everybody knows the note now so there's no need to be reading the music okay?** (Gives 3-step pattern, nods his head, saying:) **That's better** (as they play the note. Gives the cut and says:) **no - cut with me - not before or after me - with me. Try that one again.** (conducts 3-step pattern. This time they cut precisely) **That's good. Next note.** (conducts 3-step pattern. **Next note** (conducts 3-step pattern. He continues to conduct each note as a fermata, getting into a regular metric pattern, and the precision of performance improves as the metric feel becomes established. Then he suddenly disturbs the pattern by delaying the upbeat for the next note. Some of the students play before he has given the motion.)

(Smiles) **Oh** (acknowledging his trick but keeping his voice friendly He continues, as before, completing ex. 2062. Cuts the last note) **Okay, good.**

Now let's do the whole line slurred as is, Okay? ***A tempo*** (Meanwhile, two people walk in late, and pass behind him on their way to their seats.) **Just set up quietly please.**

Episode no.3: Interpretation

The citations below appear in order of their occurrence in the above-cited transcript excerpt. Nothing has been omitted or added. The citations are framed by my interpretation of their meanings. Nick begins the practicum by articulating the information he thinks the musicians need to know to get started, namely, the exercise and page numbers,

Let's start with two-oh-six-two (ex.#2062). (He gestures to the board where he has written out what he plans to rehearse) **It's on your page two-twenty-five** (p.225)

and notifies them that he is going to improvise on the existing notation (they will play whole notes - 4 beats each - rather than the quarter notes which are written in their books). He lets them know that he wants them to place a silence *(cut)* between each whole note, (but he doesn't say how long that silence will be - they will need to watch his baton to find out when to start and stop each note):

We're just going to start off with a whole note and then cut...(points to first item on list).

He tells them why he has chosen this approach,

to get everybody working together as a unit. I don't want people lagging off when I cut...
so you can get used to watching the conductor.

and he tells them their *concert pitches*::

Okay so let's start -- Group I... Group I - B flat, and Group II have F

Before he can start, he responds to a question from a clarinettist who is confused by Nick's use of concert pitches. Nick may have assumed that the players would know what he meant when he referred to the notes as they are written in his score (i.e. in *concert*

pitch). The clarinettist needs to verify that the clarinet's written note for concert F is G, and Nick calls forth his knowledge of transposition:

(Responds to clarinettist's query) **Yeah, that's your G.**

Finally, Nick raises his baton, signalling with this gesture that he is ready to hear the actual sounds. Until this point, the sounds of the notes of exercise #2062 have existed only in his imagination. Now, for the first time, he will be able to compare the 'actual' sounds with his imagined sounds. Although Nick wrote, and then said that he would conduct exercise #2062 in whole notes, (creating the expectation that he would conduct a series of notes made up of four regularly recurring beats), he conducts a *fermata* instead, sustaining it for a duration which he determines while the sounds are being sustained, The musicians cannot know when the note will end - they must watch him to find out.

Ready? First note please (raises baton) **Let's just hear the first note.** (Gives an upbeat and a fermata. . . .)

As Nick listens to the sounds, he hears or sees something which he, apparently, finds disturbing, and he responds to what he perceives while the players are sustaining the note:

(Looks around, shakes his head and says) **Everybody**
(He cuts the sound)

He assesses the significance of the problem, and responds by choosing a course of action:

Let's try that again. Everybody together first note okay?
(conducts a 3-step pattern: upbeat, fermata, and cut) .

As the players execute their first note for the second time, Nick must evaluate what he hears and choose his next move. That is, he must listen to the "back talk". If there is still anything he finds disturbing, he must again choose, or devise an approach to resolve this tension. He could, for example have them play the note again, telling them again how he wants it to be performed, using verbal imagery or some other technique to communicate his concept. On the other hand, he could isolate groups of players to find out which individuals are not executing their notes the way he wants them to (that is, he could discover which individuals are playing before or after his baton motion). Or, he could choose to continue with his rehearsal plan.

In fact, he chooses to continue in exercise #2062, conducting the subsequent notes as a series of *fermatas*, separated by silences, but he has not told them he is going to change his warm-up plan:

> **. . . Okay let's try out the exercise now.** (Conducts the first two notes in same 3-step pattern) . . ..

It seems that he has reframed his plan to conduct this exercise in *whole notes*, electing to conduct *fermatas* instead. However, in spite of his failure to let the players know of his change of approach, the players follow his baton gestures, and execute the first two fermatas at a level of precision which appears (since he does not stop them,) to be acceptable to him.

With the execution of the next note, he again recognizes something he finds disturbing, which he identifies as a problem of precision with the beginnings of the notes, and he assesses its importance to his musical goals. He interrupts the playing to tell the students what he wants, and his choice of action is to continue:

> . . .**Okay let's start together also eh? Next note** (conducts next 2 notes as before.) . . .

Now he evaluates what he hears, and identifies an individual player who is not stopping with the others. Because Nick is able to pinpoint the source of the problem, he is therefore able to deal with it directly, moving from a focus on the ensemble to a focus on the individual who is playing the note too long, thus interfering with Nick's goal of achieving vertical precision:

> . . . (After the second note he extends his baton arm towards the horn section where someone has cut the note long after everyone else.) **You're lagging okay? Just watch that. . .**

Nick could now choose to re-play the note, and listen specifically to the horn player, but he chooses to continue to the next notes in the exercise, possibly deciding that too much repetition of the same thing will invite not more concentration, but perhaps loss of interest. Upon hearing the next note of the sequence, he again assesses what he hears, and again expresses his for coherence between what he wants to hear and what he is

hearing. Again, the action he chooses is to have everyone repeat the note; and again, he lets the group know why:

> . . . (Gives the next fermata). **Let's try that one again. Together** (gives the 3-step pattern.) . . .

He evaluates the group's response, and assesses the situation, deciding what his course of action should be. Apparently, he is still determined to achieve a satisfactory degree of concensus of execution, and he

> (Shakes his head).

Now, seemingly frustrated by his inability to get the group to execute the notes precisely, he takes a more assertive stance and gives a specific suggestion to the players which will help them to focus on how they are playing. His understanding of the difficulty of simultaneously looking at one's music and watching a conductor, leads him to decide that they should give him their full attention by memorizing the note instead of reading it, thus freeing their eyes to watch him:

> . . . **One more time. . .everybody knows the note now so there's no need to be reading the music okay?** (Gives the upbeat and the fermata

He then evaluates their precision of *attack* <u>while they are playing</u>, and shares his evaluation with them:

> and nods his head, saying:) **That's better** (as they play the note.)

However, as soon as he gives the*cut*, he again recognizes and identifies an instance of conflict. It is the same one that he has been striving to reconcile since the beginning of the rehearsal - that of cutting off together - The pressure he feels to achieve precise execution of *attacks* and *releases* is evident in his increased assertiveness. The tenor of his verbal instruction changes as he adopts more direct language, and a more authoritarian stance to get his idea across:

> (Gives the cut and says) **no - cut <u>with</u> me - not before or after me - <u>with</u> me. Try that one again.** (conducts 3-step pattern. This time they 'cut' precisely.)

This time, perhaps in response to his assertive tone and clearly stated intent, the ensemble *cut* their notes with greater precision. He shares his evaluation with them, and chooses to continue to the next note, the next and so on.

> . . . **That's good. Next note.** (conducts 3-step pattern.) **Next note** (conducts 3-step pattern. He continues to conduct each note as a fermata, getting into a regular metric pattern, and the precision of performance improves as the metric feel becomes established.) . . .

Now, Nick does something unexpected. He calls forth a rehearsal technique frequently used by conductors of beginners to demonstrate to them the importance of watching the conductor:

> (Suddenly he disturbs the pattern by delaying the upbeat for the next note...

It is a way for Nick and the players to discover the level of the group's attentiveness. If everyone is watching and concentrating, and follows Nick perfectly, he will not have to stop, unless he wants to acknowledge the group's alertness. Players who are not watching him will probably play before his downbeat, that is, in the silence:

> . . . Some of the students play before he has given the motion.)

Nick assesses the consequences of his action, letting the players know that he is aware that some of them were not paying attention:

> (He smiles) **Oh!** (acknowledging his trick, but keeping his voice friendly. . .

Then, perhaps deciding that one surprise move was enough to illustrate the importance of watching, he chooses to moves on,

> He continues, conducting each note separately, as before, and completes ex. 2062. Cuts the last note)

and finally, he shares his evaluation of the quality of the performance he has just heard:

> **Okay, good.**

Now, he must assess the rate of progress, the pace of rehearsal, and his rehearsal goals. He can choose to: (1) re-play some or all of the first part of his warm-up, or (2) move on to something new. He chooses to proceed to the second item in his warm-up plan, which is to perform the same exercise *as written* (i.e. slurred quarter notes, or 'as is').

Now let's do the whole line slurred 'as is', Okay?*A tempo*,

And so Nick continues through his rehearsal, continuously choosing his actions, responding to what he hears and being guided by what he wants to achieve.

Episode no.3: discussion

This episode illustrates that Nick is not bound to the notation of the method book. Using the notation of a simple technical exercise as a point of departure, he created new activities for purposes determined by him. He created opportunities to work on ensemble technique, (playing 'together') and on instrumental technique (practicing different styles of articulation) through the use of familiar, simple materials; at the same time the players 'warmed up'. By freeing the musicians from the necessity of reading new materials, he created an environment which allowed the players to concentrate on following his gestures, and on executing precise stops and starts.

Nick listened, assessed, and responded to what he heard, acted to achieve a better level of precision, and communicated his intent, and his evaluations to the players. His repeated emphasis on precision of stops and starts, suggests (1) that he had an 'ideal' of precision playing, (2) that he considered precision an important issue, (3) that he was convinced that this group had the potential to execute their notes precisely.

The protocols suggest either 1) that Nick's original approach was to conduct ex.#2062 in *whole notes* and that he reframed his plan at the moment he started his practicum, or 2) that perhaps his original idea was to conduct a series of *fermatas*, and he expressed his intention with an incorrect term, labelling the first item of the warm-up *whole notes* instead of *fermatas*. This ambiguity about his intentions may have contributed to the difficulty he had in getting the players to respond at first with precision. (Whereas the *whole note* pattern would have been played with a regularly recurring group of strong and weak beats as the fundamental organizing principle, the *upbeat-fermata-cut* pattern that Nick employed, at first had no discernible metric organization. The absence of metric

organization in the pattern forced the players to rely on Nick's anticipatory baton cues to tell them when to start and stop each note. Later, he altered his approach to the exercise, conducting *fermatas* , but within a metric framework, at which point, the precision of playing increased. In any case, these changes of approach were communicated not verbally, but through his baton gestures.

Nick illustrated to the ensemble the importance of watching the conductor through the rehearsal device of delaying the start of one of the *fermatas*. He employed this device, in the midst of action, apparently in response to his need to gain the students' attention. His language became notably more assertive when his goal of precision was being frustrated by the band's ragged execution of the *fermatas*. His demand that they play, "not before or after me - with me" suggests that he had a musical concept, that he was striving to realize the concept in concrete sounds, and that he was driven to change the tenor of his linguistic stance by the situation.

As he listened to each *fermata*, he assessed its execution according to some internal standard, and he communicated his responses to the group, either while the sounds were being sustained, or after they had stopped playing. He communicated his wishes by telling them he wanted it "together" or "that's good" or "you're lagging" or "let's start together also".

Implications for Nick

Precision of stops and starts is not an 'end' in itself, but is one of the means by which even an inexperienced band can achieve a satisfactory level of musical expression. If Nick can persuade the players to execute their notes with precision (to a standard which he finds satisfactory), and if the players develop the habit of listening to each other, and watching Nick, the practicum time will be used more efficiently and Nick and the group will be able to focus on other musical goals. If Nick can persuade the players that his baton

gestures and his words have something important to communicate, they are more likely to watch him.

Findings

Nick had two basic tasks related to his practicums. The first task was to build his musical concepts. The second task was to help the musicians to shape the sounds in ways which were consistent with his musical ideas, and which were consistent with the players' performing abilities. These tasks had to be framed, and carried out within his understanding of how best to use the time available, and within the parameters of his personal goals.

Nick's understandings of the artistic and the technical dimensions of conducting/teaching, and of the social context in which they were imbedded, appeared to guide him, as he framed his rehearsal approaches. In the practicums, his reframing strategies appeared to be related to the clarity of his musical concepts and to his perceptions of the needs and potentials of the players.

During the rehearsals, he called forth various aspects of his knowledge and skills, and he exercised judgement. Evidence of his thinking was inherent in his actions and words: he employed rehearsal techniques (like modelling, surprise, repetition), he displayed his knowledge of the concrete aspects of conducting/teaching practice (with respect to standard beat patterns, specific vocabulary, transposition, and notation), he exhibited his aesthetic values (with respect to precision and style); he demonstrated his understanding of the social context (adopting linguistic stances which seemed appropriate to his purposes). Nick's use of language suggests that he was aware of the importance of working together as a team, but also that he understood that there could be only one leader.

Nick used his baton to communicate information (metre) as well as expression (style and tempo, precision of stops and starts). His baton gestures sometimes gave a

more precise indication of what he wanted than his language; this is consistent with his assertions about his feelings of inadequacy with regard to his language.

He responded, with gestures or words, or both, to what he observed either while the sounds were still going on, or immediately after he gave the ensemble the *cut*. His referring back and forth from the written symbols to the players implies that he was aware of the relationship of the written symbols and the actual sounds, and that he could compare what he understood the notation to be saying with what he understood the "back talk" to be saying. This awareness made it possible for him to shape the musical text, and to adjust his 'ideal' with the 'reality'.

The conducting practicums offered Nick opportunities to (1) become familiar with some of the features of conducting/teaching, (2) to discover some of the knowledge he already possessed, and (3) to develop new knowledge in the context of practical situations. These practical experiences afforded him opportunities to discover what he could communicate through his language, baton gesture, and rehearsal procedures.

Nick's conducting experience may be characterized as a process in which he was continuously thinking what he was doing while he was doing it. This process corresponds to Schön's concept of reflection-in-action. Each of the episodes cited may be thought of as bounded, or closed, events in the sense that the beginnings and endings of each episode were defined by particular musical goals related to a particular musical text. However, Nick moved without delay from the end of one musical idea to the beginning of the next, in a continuous cycle of listening, assessing, and making decisions based on what he heard, what he thought was possible, and what he wanted to accomplish in the time available.

Nick used various communicative means both to get his ideas across, and to establish his role as leader. He employed context-specific (and sometimes not-so-specific) language, baton gesture, and rehearsal approaches to communicate his intentions, his

attitudes, and his values. Through these media, Nick communicated with the musicians, whose task was to learn to 'read' these explicit signals, which represented his thoughts.

He shaped his musical ideas during the course of rehearsal, calling upon his knowledge to help him frame new ways of dealing with situations, adjusting his concepts to the realities of the situation, and exploring ways of arriving at musical outcomes which were satisfactory to him.

Implications for Nick: A summary statement

Four main points emerge from the interpretation of the data. They prompt the suggestion that in order for Nick to improve his effectiveness as a conductor/teacher he needs to increase his awareness (1) that the performers need to know that they can depend upon him to help them understand how to play their instruments and how to execute the notation, (2) that everything he does in rehearsal represents choices he makes, (3) that these choices are made explicit through his actions and his words, which must communicate his intent clearly, and (4) that there is never enough rehearsal time.

In a class of beginning players, Nick can expect a variety of problems of a technical nature to arise again and again, forcing him to stop rehearsal repeatedly to deal with them, and challenging him to draw on his fund of knowledge, and his repertoire of approaches to solutions. He must learn to frame the problems from the perspective of what the beginning player needs to know and do. Since it is not possible for beginners to know how to go about solving technical difficulties, it is incumbent upon Nick to know, or else find out, what specific advice to offer.

Nick's success at persuading the musicians that he is a leader who is worthy of their trust, has implications for his future conducting/teaching. For if he is successful at establishing his leadership, his performers, who represent diverse abilities, values, and purposes, may develop into an ensemble which is willing and able to express musical texts according to standards of performance he wishes to achieve.

If Nick continues to approach his conducting/teaching experiences using musical expression as his point of departure, he is bound to improve his facility at reflecting in action, for he will feel more and more the need to resolve any tension between his musical concepts and the actual sounds. If he continues to think about what he is doing as he is doing it, he may be expected to reframe his approaches to achieving musical goals during his rehearsals in an increasingly creative manner. To achieve a level of professional competence he will need to draw on and build an ever wider repertoire of ideas, refine the clarity of his communications, and thus improve his effectiveness as a conductor/teacher.

CHAPTER VI - CONCLUSIONS

A synthesis of theoretical assumptions and findings

This investigation suggests that the degree to which a conductor is effective at achieving a satisfactory level of expression of a musical text in a practicum is related to (1) the depth of understanding and conceptualization which the individual has achieved during the preparation stage (2) the ability to communicate concepts to the performers, and (3) the ability to respond creatively to situations of practice.

1. Meaning-construction

A conductor begins to shape the meaning of a musical text, prior to rehearsal, and then adopts a dual stance with respect to the reality of the musical sounds in a practicum setting. That is, the conductor experiences a simultaneous awareness of the music's meaning, how it is being executed, how its expression could be improved. This experience relates to Rosenblatt's notions of meaning-construction and of aesthetic/efferent stances, which were described in the second chapter. An effective conductor adopts this dual reflective stance in order to express the musical text.

2. Communication

The guideline for assessing the clarity, or success, of a conductor's communications resides in what these messages mean to the performers. This assessment, in a rehearsal situation, may be made on the basis of the ensemble's musical responses, and is a matter of subjective judgement. Such judgement is exercised constantly by the conductor during the course of rehearsal. Halliday's (1978) theory of the social basis of language is a useful framework for analyzing the significance of a conductor's verbal communications in terms of (a) its appropriateness to the context, (b) the clarity of its meaning from the perspective of the musicians, and (c) its mode and tenor of presentation.

The range of musical information and expression which is communicated by a conductor through baton gestures (which is described briefly in the transcripts and their interpretation), relates to Vygotsky's (1978) notions of the fusion of thought and gesture, and to Arcaya's (1976) contention that the musical imagination is physically embodied in a conductor's gestures.

3. Ability to respond creatively

A conductor responds continuously during conducting practicums to a variety of situations of practice, which Schön (1987) describes as uncertain, unique, unstable, and often in conflict. These responses are embedded in the process of reflection-in-action, and are made apparent through the conductor's reframing actions. Reframing is the conductor's way of handling artistic and technical issues during the search for musical coherence. Reframing can best be learned in a practical situation. This suggests the value of practicum experiences where reflectivity is encouraged, to the development of competent conductor/teachers.

The process of response and action is consistent with Schön's (1987) view of the nature of professional artistry which is displayed by competent practitioners as they engage in the action of their professions. At the root of reflection-in-action is meaning-construction; without a sense of the text's meaning, no effective reflection-in-action, or consequently, reframing, can take place. At the heart of ensemble experience is communication, for without effective communication, musical expression may be inhibited or obscured.

Implications of the study

This study has shown (1) that meaning is constructed and shaped prior to, and during rehearsals, (2) that language, baton gesture, and rehearsal approaches are windows to conductors' musical thinking, and (3) that reframing as a four-step repeatable sequence,

is a viable framework for interpreting reflection-in-action. If these ideas are accepted as central to conducting/teaching practice, then further investigation into these areas is warranted. These areas lie within the realms of the pedagogical and the methodological.

1. Teacher development

a) Practicum experience. It is important to design appropriate educational environments for undergraduates, where they may feel free to explore the features of conducting/teaching practice, and in which setting they may become aware of the knowledge they possess and glimpse the extent of the knowledge they need to possess. Practicum settings in which the student conductors' peers are the performers offer an ideal milieu for the development of professional competence. Such settings represent actual practice, but are relatively free from the anxiety which is often experienced by student teachers in school classrooms, where their careers may be at stake.

b) Program design. Those who are involved in teacher education are charged with striving unceasingly towards the improvement of programs designed to develop professional competence and artistry among conductor/teachers. By learning to interpret the actions and words of pre-service conducting/teaching students, and in so doing, gain understanding of how students learn, the educators of teachers can seek new approaches to helping their students achieve the level of professional competence they need to function effectively in schools. The findings of this study seems to sugest that program design should incorporate approaches which enhance reflectivity in and on practical experience.

2. Research approach

a) The need for qualitative research. In conducting practicums, the reflective process appears to be continuous and "lightning-fast", and is expressed through action, which takes the form of reframing. This process appears to be at the heart of

conducting/teaching practice, and therefore it is a research topic which merits further study. Reflection-in-action is a powerful process through which learning takes place and in which student conductor/teachers' knowledge is made explicit. The development of research approaches to investigate the nature of reflection-in-action, could enhance supervisors' and teacher-educators' understandings of how student conductor/teachers come to construct meaning from musical texts as they learn the art and discipline of conducting/teaching. Research on reflection-in-action, undertaken within frameworks of qualitative research methodology and assumptions, and making use of techniques of reflective participant observation, can contribute to our understanding of what music undergraduate conducting students know, and how they learn what they need to know. What such studies might reveal about learning a practice, and about teaching, could make a contribution to the development of music education theory. Helping students to become aware, through reflection, of what they know and what they need to know is an important step in the empowerment of music educators.

Glossary of musical terms

As written. The notation should be played the way it is written. This instruction is usually given after the conductor has improvised on the notation, for example playing the written pitches but changing the rhythm.

Attack. A term which describes the physical action of starting the sound. How the sound is started varies from one family of instruments to another. Wind players set the air column vibrating; percussionists strike the instrument.

Balance. Refers to the relative weight accorded the various voices. It is affected by timbre and dynamics.

Beat pattern. Physical gestures by which conductors communicate the first, second, third, fourth (and so on) beats of the bar. Patterns may be communicated with or without a baton.

Concert pitch. The written pitch corresponds to the actual pitch.

Cut. The sound is stopped.

Detached. The notes are performed with silences between them. The length of the silence varies according to the musical context.

Device. Something used to gain an artistic effect.

Dress rehearsal. The concert is rehearsed as though it were a performance environment. Ideally the program is performed straight through,without stopping, so as to allow the participants to experience the totality of the performance. In reality, it is often necessary to stop the flow in order to make minor adjustments and corrections.

Duration. Refers to the length of time the sound is held.

Dynamics. One of the elements of music; refers to volume

Embouchure. The formation of the lips in playing wind instruments.

Fermata, or *Pause.* A sign over the note indicates that it is to be sustained. It may be held for its full value, or longer.

Form. Refers to the organizing principles within which the elements of pitch, duration, dynamics, timbre, and style are combined.

Glissando. A sound-effect produced by the trombone, when its slide is moved up or down while the sound is sustained.

Inner ear. Corresponds to the notion of the imagination. Most people have the capacity to hear sounds in the inner ear. Musicians develop this ability for specific purposes.

Modelling. A means of demonstrating the desired sounds through the presention of a model. Musical ideas may be modelled using the voice, or another instrument.

Phrasing. As in speech, music is communicated in 'units' of meaning. Phrasing is accomplished through breathing, and through dynamic shaping.

Pitch. Refers to the frequency of the sound waves.

Podium. Usually, a low platform on which the conductor stands, the better to be seen by all members of the performing group. In this study, I use the term to denote the area on which the platform would be placed if the student conductors used such a device.

Rehearsal. A time for learning how to play the music as an ensemble. Rehearsal for inexperienced players may also be a time to learn how to play the instruments.

Release. The player stops the sound.

Slur. Two or more different pitches are produced smoothly on the same breath, with no interruption of the air stream.

Staccato. Literally, detached. Often staccato is effected by performing the notes shorter than notated, with a resulting 'lightness' to the music. It is commonly used as a stylistic, or expressive device.

Style. Refers to the mode of expression, or the how pitch, rhythm, and duration are treated for expressive purposes.

Timbre. Refers to the 'colour' of the sounds.

Tongued. The note is started by releasing the tongue from behind the upper teeth, or the tip of the reed, allowing the air column to pass through the lips and through the instrument.

Transpose. Due to the historical evolution of some instruments, and conventions of practice, the written pitches of some instruments do not represent the actual sounds. The players learn the relationship between the 'real' sounds they produce and the written sounds they have in their parts.

Upbeat-Fermata-Cut. Refers to a pattern in which the conductor indicates with appropriate gestures, the preparation for the sound, the length of time the sound is held, and the end of the sound.

Vertical precision. All of the players execute their attacks and releases at the same moment in time.

Warm-up. Undertaken at the start of a rehearsal; consists of exercises especially designed to gradually warm the muscles of the players.

Whole note. The note is held for a duration which is equivalent to four quarter note beats.

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