# EDUCATIONAL FOUNDATIONS
# AND TEACHING STRATEGIES
# IN THE DEVELOPMENT OF
# MATERIALS FOR BAND CLASS
# PERCUSSION INSTRUCTION

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By

Darrell John Bueckert

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# ABSTRACT

The purpose of this study was to develop an approach to teaching percussion in the school band setting which is efficient and effective in meeting the musical and technical demands of contemporary wind and percussion literature. The need for such a study arises from the limitations of time and resources for the school instrumental teacher, and from the apparent lack of pedagogical agreement among many existing methods for teaching percussion.

It is proposed that the best approach to developing such materials is to identify an appopriate process by which the content and strategies for teaching may be determined. Through the study of existing instructional methods, representative compositions for the wind and percussion instruments, and authorities in educational design and psychology, a set of educational foundations and principles for teaching percussion were formed. Methods and strategies for teaching percussion in the school band class setting were then formulated from suggestions arising out of the investigation for this study.

This work is dedicated to my father, Jacob Bueckert

# ACKNOWLEDGEMENTS

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# Chapter 1

INTRODUCTION

## 1.1 Rationale

Many beginning percussionists receive their first instruction in the school band. In some cases the band class teacher is the only source of instruction for a percussion student throughout elementary and secondary school. This places a great responsibility on teachers who may have a limited background in percussion.

Such responsibility demands that band class teachers put every effort into ensuring quality instruction for their students. Yet, limitations of time often compound the problem of trying to teach effectively.

Instruction on the percussion instruments must often take place in a mixed instrument class setting, comprised predominantly of wind instrument players. Instrumental music educators are often not afforded the luxury of meeting regularly with the percussionists, either individually or as a homogeneous group. In addition, the teacher is often responsible for the instrumental music programs in five or more schools. To manage such a demanding music education program, teachers are constantly being challenged to be more efficient instructors. Making efficient use of the available time is probably one of the most pressing issues in instrumental music education today.

While teachers have been struggling with the problem of providing adequate instruction within the time available, we have seen a coinciding development in the field of percussion performance. Composers have been

making ever more extensive and imaginative use of the percussion section, finding new and innovative ways of using standard percussion instruments in their search for new sonorities. In addition, increasingly more compositions have included percussion instruments seldom used previously, adding many new instruments to those considered part of the standard percussion section.

With such expanded musical possibilities from the percussion section, composers have been using the instruments in a much more prominent role. Where once the percussion section was relegated to providing rhythmic accompaniment to the rest of the ensemble, now these instruments are being used as an integral part of the melodic and harmonic structures of the music as well.

Thus, percussionists are facing increasing musical and technical challenges to meet the demands of contemporary literature. Teachers, in turn, are challenged to find effective teaching methods to guide their students' musical development.

## 1.2 Purpose

The purpose of this study is to address the challenge of teaching musicality and technique to the percussionists in a mixed instrument class when instruction is limited to the time available to one teacher and when regular individual instruction is not possible.

It is apparent that percussion instruction in many band class method books is inefficient and ineffective, lacking a strong conceptual focus. As a result, teachers say that poor technical skills and slow musical development seem to be persistent problems with band class percussion students.

Thus it has become clear that band class percussion instruction is in need of a new pedagogical approach; a consistent conceptual foundation from which teaching methods can be developed. Traditional methodology

in teaching percussion includes a numerous variety of seemingly contradictory approaches. While many fine percussionists have been trained out of these traditions, more responsible education demands that we evaluate our pedagogy in terms of the contemporary demands on the percussionist and sound educational strategies.

Responsible pedagogy must be built in response to these demands and strategies. In some cases this new pedagogy may well include components which resemble more traditional methods. However, it is most important that the process of *building* a responsible pedagogy be derived from scholarly investigation, as opposed to simply piecing together traditional methods that seem to work well.

This study will attempt to conduct such an investigation and propose specific strategies for building a responsible pedagogy.

## 1.3 Background to the Study

Little, if any, substantive research exists on the effectiveness of the various strategies for teaching band class percussion. This does not mean that the field of percussion education has not been evolving and growing. Indeed, percussionists and percussion teachers have published numerous books describing the method of teaching that they have found most suitable for themselves. Many of these strategies can be identified in the materials presently used in the band class. However, no studies known to this author have indicated which methods have proven to be more effective than any others, or why.

This study proposes a new approach to percussion instruction in the band class. Because of the limited research and background knowledge in this area, the author has relied on his experience in many areas of percussion instruction to help identify teaching strategies that work in the band class. The author's experience as a professional percussionist and timpanist has provided a firsthand understanding of the nature of musical

development as a percussionist. Private teaching experience, with students from beginner through university, has provided insight into the uniqueness of each individual's learning style, and opportunities to try a variety of teaching strategies. Experience as a university techniques class instructor has proven valuable in identifying directions for group percussion instruction which make efficient and effective use of a very limited amount of time. Finally, experience as a band class teacher for grades five through twelve has demonstrated the inefficiencies and ineffectiveness of present band class instruction materials for percussion, and has helped identify directions for the development of the materials presented in this study.

## 1.4 The Research Question

How can the instructional materials for band class be most efficient and effective in training band class percussionists to meet the musical and technical demands of the contemporary repertoire for wind and percussion instruments?

*Subsidiary Questions*

1. What are the musical and technical demands of the contemporary wind and percussion repertoire?

2. What is the nature and scope of the musical and technical instruction presented in the band method percussion books?

3. What skills and understandings should be the component parts of a classroom percussion pedagogy?

4. How should the instructional materials for band class percussion present these materials to provide for most effective and efficient learning and development?

5. What resources could contribute to the development of better classroom percussion pedagogy?

## 1.5 Definitions

The terms central to this study were defined as follows:

1. **Band Class:** For the purpose of this study, a band class is an elementary or secondary school class in which instruction on the wind and percussion instruments is given.

2. **Band Class Method Book:** For the purpose of this study, a band class method book is a printed document containing information and musical exercises for teaching wind and percussion instruments together in the band class.

3. **Exercises:** For the purpose of this study, exercises are musical patterns or phrases which are intended for instrumental students to practice.

## 1.6 Limitations

1. This study is limited to the discussion of how the materials used for instruction may be improved. The teaching strategies discussed are those presented in the instructional materials specifically. Consequently, factors in efficient and effective instruction that rise from good teacher skills have not been addressed. It should be understood, however, that skilful teaching is considered to be a significant aspect in presenting well-developed instructional materials.

2. It is not the intention of this study to design a curriculum for percussion instruction. Rather, this study is limited to the development of ideas upon which a curriculum may be designed. The educational foundations and teaching strategies proposed are intended to guide the development of materials such as a full curriculum, but such a curriculum is beyond the scope of this study.

## 1.7 Assumptions

1.  This study assumes that the band class method is the primary source of instructional materials for early training on the wind and percussion instruments in the band class.

2.  This study assumes that while the band class method is extremely important in aiding teacher effectiveness and efficiency, it is not the only source of musical experiences for the percussion student in the band class.

3.  This study assumes that band class teachers will demonstrate playing technique and give verbal instruction.

4.  This study assumes that band class experiences will also include the playing of a variety of compositions for wind and percussion instruments.

## 1.8 Delimitations

1.  The examples of proposed teaching strategies presented in this study represent primarily introductory skills and concepts. This was intentional, due to the fact that instruction must begin with these introductory elements. However, the educational foundations which guide these strategies may be, and should be, applied to any level of instruction.

2.  For the purpose of this study, *instructional materials* and *materials for instruction* will be taken to mean the same thing. They refer to information and experiences which provide for the development of skills and concepts.

3.  For the purpose of this study, *methods* may also refer to books used for private study instruction.

## 1.9 Significance of the Study

This study will be of most benefit to the designers of band class method books. The re-evaluation of the process by which such materials are developed, by itself, is of significance because it suggests ways in which designers may be more attentive to the needs of those using their materials. However, the findings of this study are compelling in suggesting that designers implement these strategies in the development of new and better materials.

Band class teachers may also derive significant benefit from this study. The concepts and strategies contained herein suggest ways in which band class teachers may conceive of the instrumentalists in the band class as a more homogeneous group of students and thus provide better *class* instruction. They also provide insight as to how teachers may make accommodations for the shortcomings of the band class methods they presently use. In addition, the discussions presented will help teachers develop better understandings of the percussion instruments and how they may be used to make music. However, while band class teachers may find these concepts and strategies of significant value, it is the implementation of these strategies into the development of new curriculum materials that will be of most benefit to them in the future.

## 1.10 Organization of the Study

This chapter provides an introduction to the study. It outlines the rationale, purpose, research questions, relevant definitions, limitations, assumptions, delimitations and potential significance of this study. Chapter 2 contains a review of the relevant literature for teaching percussion, including band class method books, post-secondary techniques class texts and instructional methods for private study. Chapter 2 also provides a brief analysis of the potential problems arising from the band class method

books, and identifies how the other resources reviewed may have influenced the development of band class instructional materials. Chapter 3 includes a discussion of the *process* by which new instructional materials for band class may be designed and developed, and states the parameters of the investigation. Chapter 4 outlines the results of the investigation and proposes suggestions for implementation of the results in designing new instructional materials. Chapters 5, 6, and 7 contain the concepts and teaching strategies resulting from the suggestions proposed in Chapter 4.

# Chapter 2

REVIEW OF THE LITERATURE

Since this study is interested primarily with finding better ways of teaching the percussion instruments, the materials discussed here are limited to those used for teaching percussion. Within these parameters there are several areas of investigation that are relevant to this study. The most relevant materials will be those which are intended to teach percussion in the context of the band class. The materials used in this context are normally instructional books for teaching all instruments together and referred to as band class method books. These will be discussed first.

In addition to the instructional books used in the band class, there are other resources which may not be intended for in class instruction but have had a significant impact on the teaching that happens there. The first are texts used for *teacher training*. Most band class teachers will receive instruction on the percussion instruments in the form of a *percussion techniques* class, while attending their post-secondary institution. While the texts used for these classes are limited to percussion instruction only, and therefore not suitable for teaching mixed instruments together, they are important in the development of the concepts and skills that the teacher will take to the classroom. Several of the more important college techniques books will be discussed here.

Secondly, there are a great number of materials available for percussion instruction in the context of *private study*. These materials are relevant to this discussion in that they offer insight into a variety of

instructional strategies for teaching the percussion instruments. Only a few significant methods for private study will be discussed. It is the intention of this review to determine what contributions such materials may have for the development of better teaching strategies.

## 2.1 Band Class Method Books

The most common instructional materials used in the band class, particularly at the beginning levels of instruction, are band class method books. They are designed for group instruction on all the band class instruments. The teacher's manual contains information and musical scores for instruction on all of the instruments. Students have part books corresponding to the instrument they are studying which contain the information and exercises transposed for their instrument. While band class teachers will undoubtedly include full band compositions into the curriculum, these books usually provide the bulk of the instructional resources for the class, particularly at the beginning stages of instruction.

The following discussion will attempt to illuminate aspects of content and strategy found in a sampling of these books. This will be presented in terms of how the materials address the following topics.

### 2.1.1 Instrumentation

The focus of instruction in most band class methods is the development of snare drum skills. Most snare drum parts are extensive, beginning with the first exercises and included consistently throughout the entire book. Bass drum is also very common, although the parts are not as significant or as frequent as those for the snare drum. Bells (keyboard percussion) are usually present in most publications, although there are some exceptions. Ed Sueta's method (1974), for instance, contains parts for only the snare drum and bass drum.

Pearson's method (1993) contains parts for snare drum, bass drum,

and bells consistently throughout, in addition to providing significant parts for timpani and accessory percussion instruments as well. Other recent methods do not include timpani even though some older methods, such as Weber's publication (1947), contained at least minor parts for timpani. Even so, there does seem to be a trend toward including more instruments from the percussion family in the newer publications. A good example of this trend is the addition of many new instruments in Pearson's 1993 Standard of Excellence compared to his 1982 Best in Class publication. The older method contains parts for only three accessory percussion instruments while the newer method contains extensive parts for eleven such instruments.

Most band class method books that contain both snare drum and keyboard percussion will offer two books for the percussion students, one containing snare drum, bass drum and perhaps some accessory percussion, the other containing the keyboard percussion parts. Pearson's books are among the few exceptions, containing snare drum, bass drum and keyboard percussion all in one volume. The rationale is for "simultaneously developing proficiency on the drums AND mallets," (1982, p. 1) thus indicating an understanding of the importance in developing skills on several percussion instruments. The Yamaha Band Student offers a choice of two separate volumes, or one combined volume (Feldstein and O'Reilly, 1988). Interestingly, Pearson's 1993 method is also published with a second percussion book. This second volume contains parts for the timpani and accessory percussion instruments. Ployhar's 1977 method comes with three percussion books, one each for drums, bells and auxiliary percussion (Ployhar, 1977).

### 2.1.2 Technique

There have been some significant developments in the field of percussion education with regard to a theory of how the instruments are

played.  Many of the more recent band class method books have incorporated some of these new ideas into the instruction they present. The manner in which the snare drum sticks are typically held, for instance, has changed from a *traditional grip*[1] in which the left stick is held differently than the right stick to a *matched grip* in which both sticks are held the same way.  Thus, earlier methods by Weber (1962) and Sueta (1974) recommend the use of the traditional method.  Ployhar (1977), Pearson (1982) and Rhodes (Rhodes, Bierschenk and Lautzenheiser, 1991) offer instruction for the use of both grips, while Pearson's 1993 method describes only the matched grip.  The <u>Yamaha Band Student</u> (Feldstein and O'Reilly, 1988) gives no instruction on how to hold the sticks.

No instructions are generally given in the earlier methods for how to produce the basic stroke.  Pearson (1982) method describes it as a "quick snap of the wrist" (p. 50).  Likewise, Rhodes et al. (1991) describe it as a "quick reflex-like wrist action" (p. 24).  However, Pearson's 1993 publication suggests that, for snare drum, the stick is dropped to the head of the drum and allowed to bounce off, while for keyboard percussion the mallet is still struck with a "quick down-up motion" (p. 33).

The 1991 Hal Leonard publication (Rhodes et al., 1991) suggests that the technique for playing the keyboard percussion instruments involves "throw[ing] the mallet near the center [sic] of the key...and pull[ing] the sound out of the keys by bringing the mallet up after the strike" (p. 25).  Ployhar, on the other hand, suggests that "as soon as the bar is struck snap the mallet off" (p. 9).  In Weber's 1962 method, bells are not included in the conductor's score; however, there is a bell book which contains some preliminary information, limited as it is.  He suggests that "it is very easy for a person with Piano playing experience to play any

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[1]Originally used to accommodate for the positioning of a marching drum carried by means of a shoulder strap.

of these keyboard [percussion] instruments" (p. 5). No real technical instructions are given, however Weber does suggest that the student "will need the help of [the] teacher to learn the proper way to strike the bars with the mallets" (p. 5). Few other methods offer technical information for playing these instruments.

Pearson's 1993 method is one of the few to introduce timpani to the percussion student. The grip is described as the same matched grip used for playing "mallet percussion instruments" (p. 178). The stroke is described here again as a quick snap of the wrist (a phrase he uses for describing the keyboard percussion stroke) yet Pearson also suggests that the mallet should be allowed to rebound naturally, much like the description for the snare drum stroke.

The methods which provide parts for the accessory percussion instruments generally include brief descriptions of the techniques used for playing them. These are normally one or two sentences of text only. Pearson (1993) and Ployhar (1977) provide the most extensive information. Pearson includes an illustration and several short paragraphs describing the technique for each instrument (pp. 617, 618) while Ployhar includes text and photos (p. 9).

Some specific techniques are often discussed in band class method books, particularly dealing with the snare drum. There are two schools of thought regarding the snare drum roll. Traditionally the double stroke roll (two bounces from each stick) has been considered the legitimate method but over the years the multiple bounce roll (many bounces from each stick) has been gaining credibility and has now overtaken the double stroke roll as the roll of choice for most concert applications, exceptions being some marches and military music. Thus many of the earlier methods give instructions for the development of the double stroke roll, in keeping with the conventionalities of the day.

Weber's 1962 method, however, already suggests that both techniques are acceptable (p. 51), as does Sueta's 1974 method (p. 21a). Ployhar's method teaches only the *rudimental* (double stroke) roll but suggests that some teachers may prefer the multiple bounce roll (p. 21).[2] More recent methods seem to have abandoned the traditional technique in favour of the *buzz* (multiple bounce) roll. Pearson's 1982 method (p. 137) and the Hal Leonard method (Rhodes et al., 1991, p. 49) give instruction in the development of the multiple bounce roll only. Pearson (1993) gives information to the student for the execution of the multiple bounce roll only as well (p, 108); however, the conductor's book does contain information regarding the execution of the double stroke roll (p. 610). Interestingly, Feldstein and O'Reilly (1988) only mention the double strokes when describing the execution of the five-stroke roll and the nine-stroke roll (p. 102, 113).

To obtain this multiple bounce technique, Weber (1962) suggests to strike the drum and let the stick bounce freely until it stops (p. 15).[3] The purpose, suggests Weber, is to obtain as many bounces as possible. Other methods which provide information to the student regarding the execution of this roll suggest similar strategies. The Hal Leonard method suggests the stick should bounce freely on the drum head (Rhodes et al., 1991, p. 49). Pearson (1993) agrees but adds that the stick should be lifted from the drum before the stick stops bouncing (p. 610).

The roll executed on the keyboard percussion instruments is introduced in a number of band class methods, particularly the newer publications. Its execution is usually described as *rapidly alternating single strokes* (one stroke which each hand). The timpani roll, although very rarely mentioned, is described by Pearson (1993) in a similar way (p. 620).

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[2]This is contained in the drum book only, not in conductor's book.

[3]This is contained in the drum book only, not the conductors book.

The flam is another technique for percussion commonly found in band class methods. Most methods agree generally on the instructions given for the execution of the flam. Weber's description is typical:

> A Flam consists of a TAP with one stick followed immediately by a strong stroke with the opposite stick. The sticks strike the Drum almost together. To start the Flam, one stick is held high and one low. The Low stick is about 2 inches from the Drum and the High one 12 inches or more depending on the speed or volume. The Low stick is indicated by the small note in the music. It strikes the Drum first with a TAP. This is immediately followed by the High stick with a regular or accented stroke. (Weber, 1962, p. 59)

Newer methods add the instruction to initiate motion in both sticks at the same time (Pearson, 1993, p. 614) or with the same speed (Rhodes et al., 1991, p. 88). The Yamaha method introduces the flam but gives no information regarding its execution (Feldstein and O'Reilly, 1988, p.45).

Instruction on bass drum technique is limited primarily to the use of the basic stroke and a few simple rhythms.

## 2.1.3 Pedagogy

The section above has identified ways in which band class methods *describe* the technique included in their instruction. However, this represents only part of the instructional value of these books. Band class methods must also be evaluated on the basis how they *develop* skills and concepts for the student. This is accomplished through the exercises presented for the student to practice. The manner in which these exercises help students learn is as important to the overall success of the method as the descriptions they provide. Thus while one method may have good descriptions of a technique it may not necessarily develop the technique well because the exercises are ineffective.

Development on the keyboard percussion instruments is primarily that of learning new notes. For the most part the keyboard percussion

parts develop knowledge of the note names and locations, in the order of the rest of the band class. The melodies are the same for all the melodic instruments in the band class, so the introduction of new notes on the keyboard percussion instruments coincides with the wind instrument instruction.

The unique challenge in playing these melodies on the keyboard percussion instruments is the ability to play a sequence of notes with two hands. Thus some methods include exercises with *stickings* (markings indicating which hand is to play which note) to indicate how the exercise may best be executed. Other methods either omit this aspect of technical development, or they suggest simply to alternate sticks (Weber, 1962 student Bell book, p. 6). Those methods which do include stickings do not give information to the student regarding the reasons for these choices. Neither do they establish a consistent pattern of execution. Thus learning one exercise does not necessarily give the student clues as to possible stickings for the next exercise. Pearson does indicate in his 1993 method that keyboard percussionists should be able to "demonstrate application and understanding of...logical sticking" (p. 484) yet the concept of logical sticking is not discussed.

Keyboard percussion rolls are introduced sometime after the single stroke. Normally this is approximately half way through the first year book for band. There seems to be, however, little sequence of development which progresses from simple applications of the roll to more advanced applications. There is some evidence of this type of development in the Pearson series of books from his 1993 publication.

More exercises are generally devoted to snare drum development in the band class methods. The sequence in which technical skills are introduced vary somewhat but invariably the first is the *tap*. Weber (1962, p. 15) and Sueta (1974, p. 3a) introduce it as a whole note, corresponding to the whole notes presented to the wind instruments. In other methods it

appears as a quarter note even though the rest of the band class may still have whole notes (Pearson, 1982, p. 54). In most books the first exercises employ alternate sticking. Ployhar (1977), however, begins with an exercise of right hand repetitions followed by left hand repetitions (p. 11). Moreover, Pearson's newer method (1993) devotes the entire first exercise to right hand development and the second to left hand development (pp. 75, 76). This method uses a sequence of exercises to bring the students to the point of coordination between the two hands. The progression in Pearson's older method (1982) shows little such development. In fact, there is one section where the same drum part is used for every two exercises (pp. 54-77).

The next technical skill for snare drum is either the flam or the roll, with apparently no predominance of either sequence. However, it seems that generally those methods which utilize the double stroke roll will introduce the flam first while those methods which utilize the multiple bounce roll will introduce the roll first. When the roll is introduced it is usually in combination with single strokes. Most methods offer no written exercises for developing the roll alone. Ployhar (1977), however, devotes one page in the student book to preparatory exercises for the double stroke roll before the complete roll is introduced (p. 60). The exercises (with band) that follow are short, eighth note based double stroke rolls, progressing to longer rolls of sixteenth note base and finally the use of thirty-second notes as the base for the roll (pp. 61-97). The development in skills thus progresses from slow hand motion of short duration to fast hand motion sustained for longer periods of time. This is similar to the progression found in other methods, even those which recommend the multiple bounce roll. The Hal Leonard method (Rhodes et al., 1991), for instance, begins with buzzes over the duration of a quarter note, proceeds to buzzes over the duration of an eighth note, and finally introduces buzzes over the duration of a sixteenth note (pp. 49-147).

Flams usually receive little preparatory development. The first exercises for flam development are generally full and complete flams. Some methods, however, do provide exercises for playing flams alone before combining them with taps (eg. Weber, 1962, p. 59; Ployhar, 1977, pp. 37, 39, 40).

### 2.1.4 Articulations and Markings

Articulations in most band method books appears to be limited, primarily, to the use of accents. These may be introduced in all instrument books in the same lesson, or they may appear in the percussion book at a different place than for the wind instrument books. In either case, little instruction is given in the student book regarding the execution of this marking. We must assume, therefore that such instruction is left to the discretion of the teacher.

Staccato markings are seldom introduced to the band students. However, when they do appear, there seems again to be no information regarding their execution. Slur markings and breath markings are not introduced to the percussionists in any method[4], although they do appear prominently in the wind instrument parts for most methods.

Several other markings are normally introduced in the band method books as well. Fermatas appear consistently in virtually all books as an indication to hold the note longer. While most methods introduce this concept with a roll to sustain the sound, Weber (1962) places a quarter note tap at this point in the music (p. 77) and Pearson (1993) places the fermata over a rest in the snare drum part (p. 109). Ployhar's first exercise with staccato markings includes bells but the drums do not play at all (Ployhar, 1977, p. 52).

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[4]Pearson (1993) does indicate the use of a breath mark on page 99 even though it is not introduced to the percussion students prior to this exercise.

Ritardandos and dynamic markings also appear consistently in most methods. Again the use of taps or rolls to introduce these concepts is inconsistent from one method to the next.

### 2.1.5 Phrasing

The concept of phrasing is seldom introduced in beginning band class methods. One exception is <u>Essential Elements</u> (Rhodes et al., 1991) which uses dynamics to help students identify where the phrase begins and ends (p. 130). The idea of breathing between phrases is also suggested in the wind instrument instruction, but not for percussion. Pearson (1993), in contrast, uses only the breath mark, even in the percussion parts, to identify the phrase when it is first introduced (p. 99). This represents, however, a significant change in strategy from his earlier publication in which "phrases are not introduced to the drums" (Pearson, 1982, p. 193).

### 2.1.6 Tone Production

Concepts of tone production seem to be of considerable importance for wind instrument instruction in most methods. However, this term was rarely used in the corresponding instructions for percussion. Essential Elements (Rhodes et al., 1991), for instance, contains detailed information before any exercises are presented which describes "Producing the Essential Tone" (p. 19-23) on the woodwind and brass instruments. The corresponding pages in the percussion book discusses how to hold the sticks and strike the instrument. Similarly, Pearson (1982) contains information on "Getting A Good Tone..." (pp.18-48) for all wind instruments, yet the percussion book contains corresponding segment "for drums only" (p. 50) which also describes holding the sticks and striking the instrument.

In Pearson's 1993 method tone production on the wind instruments

is discussed at length (pp. 577-586) without mention of the percussion instruments. Although percussion pedagogy is dealt with at length later in the volume, no section devoted to tone production is included. The section describing "The Basic Stroke" includes the suggestion that students should "always listen to the sound being produced on the drum and strive for a pleasing tone quality" (p. 607).

### 2.1.7 Intonation and Tuning

Few band class method books introduced the concept of intonation for any instrument. One notable exception was Pearson's, Standard of Excellence (1993). Here again several pages are devoted to this topic (pp. 591-594). While no percussion applications are included in these pages, the *Percussion Pedagogy* discussion includes the suggestion that "playing timpani...requires skills in the areas of pitch discrimination, scale and interval identification, and sight-singing" (p. 619). A method for tuning the timpani is described on page 178 but no further exercises or instruction regarding the acquisition of these skills is included.

### 2.1.8 Musical Styles

The musical styles represented in band class method books is traditionally quite limited. Marches and waltzes seem to be common in the earlier methods. The percussion parts for these melodies usually consists of bass drum on the strong pulse of each measure, the snare drum on all other beats (or all beats) in the measure, and the bells doubling the melody. Newer band class methods seem to incorporate a slightly wider range of musical styles including more culturally diverse melodies. However the use of the percussion instruments has remained very much the same as before. The bass drum still normally plays on the strong pulses, the snare drum provides more interesting rhythmic pattern and the keyboard percussion instruments double the melody. The most variety in the percussion parts is

found in Pearson's 1993 publication which includes timpani and a large assortment of accessory percussion which adds interest to the basic snare drum, bass drum and bells parts.

### 2.1.9 Summary and Analysis

The band class methods discussed here show significant development in teaching strategies. The most forward looking is Pearson's 1993 publication, including many instruments previously omitted, more information on the playing of the instruments and more refined instructional strategies. Yet even here there seems to be a lack of understanding regarding how the percussion students gain the skills and understandings required to play these instruments.

The two most common faults among these methods seem to be (1) the omission of certain concepts and skills necessary to the development of the musician, and (2) the introduction of skills and concepts without adequate developmental process.

The omission of concepts of tone production, intonation, phrasing, and articulations is most detrimental to the development of the student percussionist. The presentation of few musical styles is equally limiting for the student. Such omissions do not allow the percussion students to develop as the rest of the band does. While other class members are growing and maturing as musicians, the percussion students miss out on this musical development. Furthermore, the discrepancy in teaching approaches for winds and percussion tends to create a schism between the groups, and soon percussionists understand that they are not equal members of the class.

Inadequate developmental strategies are equally troublesome. Most methods seem to describe techniques well, but they do not provide the experiences necessary to develop the skills. These authors have been unable to demonstrate that teaching a student something involves much

more than simply telling them about it. There must be strategies in place for guiding students to an understanding of the concepts and acquisition of the skills.

For instance, these methods all contain adequate descriptions of what a flam consists of, but they do not prepare students for the introduction of the flam, nor do they help students develop all the skills necessary to play a flam. The evidence of this is the introduction of flams (a loud and a quiet sound simultaneously) before the introduction of dynamics.[5]

At times such errors may be the result of a limited understanding of the instruments. For instance, the difference between playing a keyboard percussion instrument and a snare drum is not just the addition of melody. Yet most methods have little instruction for the skills involving efficient *movement* of the mallets beyond the occasional marking of stickings.

Other potential problems arising from the study of these methods are such things as the emphasis on teaching the reading of rhythms before a good tone has been developed. Most methods use complicated rhythms quite early in the instruction, perhaps to alleviate student boredom. The use of simpler rhythms in the beginning, however, may help students focus more on the development of technique.

These issues must be addressed if band class methods are to become more effective and efficient in presenting instruction to the student percussionist. While it is apparent that great progress has been made in structure and presentation of the materials for band class, new methods are needed which are developed from a better understanding of the nature of the skills and understandings that students percussionists must acquire.

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[5]Rhodes et al. (1991) alone introduces dynamics before the introduction of flams.

## 2.2 College Techniques Texts for Teacher Training

College techniques texts for percussion are normally used as the primary text for post-secondary percussion methods classes (or techniques classes). These texts are designed for those studying to be instrumental music educators, most of whom may find careers as school band teachers. These students are generally already music specialists who do not necessarily have any background in playing the percussion instruments, but must prepare themselves for teaching these instruments in the schools. Most of these texts provide a comprehensive discussion of the concert percussion instruments, their history, their construction, playing techniques and teaching strategies.

### 2.2.1 Philosophy

Bartlett's Guide to Teaching Percussion was first published in 1964. He states that prior to the publication of this text no such work had appeared in print (p. v). Thus Bartlett's text represents a significant pioneering effort in teacher training. He states that the purpose of the text is "to gather and organize as much practical and theoretical material as possible concerning percussion instruments, their playing techniques and teaching procedures" (p. v).

One of the significant features of this text is the statement of philosophy that Bartlett includes in his preface. It is of particular relevance to our study because it represents one of the first printed opinions about what is important in the teaching of percussion. The preface to the first edition describes the philosophy of the text in this way:

> 1. Percussion technique should be developed to serve *musical* ends.
> 2. Recommended techniques and styles should be those most generally used by artist-percussionists currently active in music performance.
> 3. Though the snare drum may rightly be considered the basic percussion instrument, the ability to execute the "original 26

rudiments" does not make a percussionist.

4. Demonstration-imitation is the best method for teaching skills such as those neuromuscular coordinations used in manipulating sticks, mallets and beaters.

5. Percussion teaching should inculcate the feeling of pride on the part of the student in performing every assignment, no matter how small, with care and musical feeling. (pp. v, vi)

Of these statements, it is perhaps the first which is the most significant, and influences the structure of the text the most. Bartlett's first chapter, the introduction, is a discussion of the concepts of tone production, musicianship and technique as a means to musical expression. He states in these pages that "by his attitude the skilful instructor imparts the idea that technical virtuosity is not an end in itself, but rather serves the ends of musicianly performance" (p. 5).

The intent of the text seems to be an attempt to get beyond the military traditions of the percussion instruments and thus present them in a more musical manner. Bartlett claims that school music programs have often been guilty of a non-musical orientation "due to the overemphasis of the *Original 26 Rudiments*" (p. 5). He suggests that these rudiments have had a non-musical influence on student development because of their focus on technique alone. While development of technique is important for Bartlett, he suggests that percussion instruction for the future must also focus on developing an understanding of the musical phrase; that "playing the musical line is an absolute necessity for the percussionist performing contemporary music" (p. 5).

This focus on musicality is of considerable significance for the development of teaching strategies yet it is difficult to find specific teaching strategies in Bartlett's text that would help develop such ideas. The evidence of his philosophy seems to be in the fact that the rudiments receive little attention, in favour of a presentation of technique based more on the type of notation encountered in the band parts. Thus more

instruction is devoted to teaching students how to apply the technique to playing the *part* than to teaching the technique alone.

The only other text of this kind that states so clearly its philosophical perspective is Gary Cook's 1988 publication, <u>Teaching Percussion</u>. He asserts that his intention to present "the most consistent playing system and teaching approach to all percussion instruments that was ever assembled" (p. xv). In addition to the concern for *musical* instruction, there is a strong emphasis on the *learning process* and its significance in determining the teaching approach to be used. He states that his approach "integrates current scientific psychophysical principles of learning and performance with contemporary concepts about natural human learning potentials to produce an innovative approach to instruction based on learning through experiential awareness" (p. 1).

Cook's approach is indeed consistent. All instruction on technique is presented as a development of his ideas on experiential learning. This theory suggests that learners strive to be aware of all aspects of the learning experience and avoid or reduce all forms of mental and physical interference (p. 4). Thus Cook's teaching strategies include vocabulary for describing the technique, imagery and analogy for better conceptual development, and the presentation of exercises that encourage mind-muscle development.

One of the significant features of this text is Cook's attempt to provide a system of playing that can be applied to all instruments. While each instrument is dealt with in terms of its uniqueness, there are consistencies that appear for each. For the most part, these similarities are derived from his concept of the basic percussion stroke (p. 53). Thus the playing of all the percussion instruments has at its core, several common ideas about playing percussion generally which are applied to the instruments in turn.

## 2.2.2 Content

A look at the content of these texts offers an indication as to what the authors consider important information for teaching percussion. If indeed the purpose of the texts is to train future music educators in the fundamentals of teaching percussion, then the content of the text should reflect that.

The instrumentation included in these texts is by no means uniform. Although all texts include snare drum, keyboard percussion, timpani and accessory percussion, the list of instruments in the category of accessories is quite varied. The most recent texts generally have the most extensive lists of instruments including standard concert percussion, Latin percussion, other ethnic instruments, specialized instruments, hand-made instruments, drum set and marching percussion.

These instruments are usually pictured and described in terms of unique characteristics and uses. Playing techniques tend to be the focus of instruction however. All texts attempt to give as detailed an explanation as is necessary for the reader to understand their particular approach to playing the instruments. While some texts are content to describe the various performance techniques, some, such as the Cook text above, give considerable attention to discussing proposed teaching strategies as well. Some methods include a discussion on the historical significance of the instruments.

In addition to the discussions on instrumentation and playing techniques, many texts include much other valuable information. Most texts, for example, include a discussion of the organization of the percussion section. While some texts limit this discussion to how the instruments should be arranged (Breithaupt, 1991, pp 91-94), many include information regarding the assignment of parts, morale and motivation, care and maintenance and recommendations for sticks and mallets that each student should own. The marking of parts is also an important aspect of

percussion organization in some texts (Bartlett, 1978, pp. 166, 167).

Because these are texts for the training of teachers, many include a section dealing with the beginning percussionist. This section may discuss characteristics to look for, prerequisites that are desirable, possible testing procedures, and recommended equipment. Most texts discussing this matter suggest that such discussions are important because the demands of playing percussion require that the choice to begin the study of percussion not be made lightly (Cook, 1988, p. 19).

The emphasis of most of these texts on musicality in playing percussion has also influenced the content presented. Several texts include a section on concepts of phrasing for percussion. These discussions are generally limited to applications on the snare drum, perhaps because it is this instrument which is often considered the most difficult to play with a sense of musical line. Combs (1995) suggests that such phrasing is accomplished through the recognition of groupings of notes, emphasized by giving extra stress to the first of each group or by giving extra stress to notes of greater length than those of lesser length (p. 48, 49). Cook, on the other hand, suggests that sticking choices, dynamic nuances and rhythmic placement of notes are all useful in shaping a phrase (pp. 92-94). Both authors include visual representations of their ideas and some examples to practice.

## 2.2.3 Pedagogy

Several approaches to instruction can be identified in these texts. Some authors focus their instruction on the presentation of information. These texts place importance on the discussion of ideas about playing and teaching the percussion instruments. Breithaupt's text is an example of this type of publication (1991). There is contained in this volume a great deal of information but very few musical examples for students to practice. In contrast, texts such as the 1995 Combs publication, offer only a minimal

amount of written instructions but present a great deal of playing material.

These two approaches represent two opposing views regarding the instructional strategies of these texts. Those which contain mostly conceptual information (in the form of written text) imply that it is the transfer of knowledge that is most important in the training of teachers. Those which contain mostly playing material imply that teachers are best equipped to teach percussion when they are learning to play the instruments themselves. Most texts would represent a mixture of these two views, leaning towards one or the other approach to some degree.

Thus approaches found in these texts for teaching the percussion instruments are strikingly dissimilar even if the content of the information is reasonably consistent from one text to the next. We find here the same progression in technique from a more traditional style of playing, including the use of traditional grip on the snare drum, as was seen in the band class method books. We also see similar approaches represented here for the stroke, posture, and descriptions of the execution of certain technical skills. What most significantly distinguishes one text from another is the strategies for helping students understand this material and acquire the skills necessary.

Breithaupt (1991) contains much valuable information but without significant developmental exercises to demonstrate the means to skill acquisition, only a limited appreciation of his instructional understanding can be gained. The few exercises that are present generally only show the printed version of the technique being introduced and do not give any indication as to how these skills will be developed or why they are presented at that point. Multiple bounce roll exercises (p. 18) for instance, show buzzes connected to a concluding tap but do not give either a sequence of progression leading up to the point of playing these exercises or an explanation for why they should be presented after taps. The discussion provides some clues as to what types of skills should be

attempted first, and what should follow, but on the whole there is little in the way of developmental strategies beyond a good description of the technique.

Payson and McKenzie (1976) offer considerably more exercises for technical development and reasoning for their particular approach. Buzzes, for instance are introduced following single tap exercises but much before the double stroke roll. The authors defend this position by suggesting that because

> ...in the beginning stages it requires more control to limit the stick to only one bounce [the double stroke roll], the authors recommend the student learn the buzz roll first, and after some facility has been attained, proceed on to the open roll, using basically the same exercises employed in learning the buzz roll. (p. 11)

Thus, while Breithaupt introduces these techniques in the same order, these authors demonstrate that it is reasonable to use this sequence of progression to help build technique.

Similar attention to sequence is demonstrated in the presentation of the techniques themselves. On each instrument the procedure for basic stroke development calls for hands to be engaged separately, then gradually reduce the number of repetitions with each hand until an alternating sticking pattern is achieved. Techniques such as buzzes and flams, on snare drum, are always preceded by preparatory exercises before applying them to a more musical exercise. In addition, each technique is always developed in isolation before integrating it with other techniques. For instance, buzzes are developed alone before introducing exercises for buzzes with taps (pp. 11, 12). Flams are developed in a similar manner beginning with exercises for flams alone, then flams with taps, followed by exercises for flams, taps and rolls (pp. 21-23a).

Keyboard percussion exercises also incorporate preliminary skill training working toward developing proper stroke and preparation for rolls

(pp. 60-64). Unfortunately the instruction for timpani technique does not include such attention to preparatory developmental and sequence.

Few other authors of techniques texts share the same attention to sequencing and the development of a theoretical defence for their pedagogy as Payson and McKenzie. Yet there are contributions that should not be overlooked. For instance, while Bartlett (1978) offers little discussion of sequencing of instruction so as to aid the development of the technical skill, he does offer some suggestions for developmental strategy that are worth mentioning. His suggestions with regard to the importance of skill development exercises prior to the introduction of reading skills is significant. Even while he argues against the traditional forms of percussion instruction, mentioned above, he finds some value in the practice of rote learning. He cautions that one should "not attempt the learning of reading skills until stick control is well developed" (p. 8). And later, "reading material containing rolls should be delayed until the students can execute the long and short stroke rolls satisfactorily" (p. 11).

The most comprehensive of these post-secondary teacher training texts to date is the publication by Cook (1988). His text includes both extensive discussions on technique and a considerable amount of playing material. This more comprehensive approach suggests the importance of both conceptual understanding and technical skill development in the training of the percussion teacher.

This system, he suggests, takes traditional approaches to the playing of the percussion instruments and integrates them into a consistent method (p. 1). Cook is not unique in his attempt to develop some consistency in approach. Some authors have tried to provide a more consistent technique by developing an approach which generalizes the instruction for playing all of the percussion instruments.

Bartlett's (1978) approach is developed from a general understanding of tone production. He suggests that tone production is to

be achieved by a free vibration of the instrument produced by a quick, resilient blow (p. 1). This concept of the *resilient blow* thus becomes the focus of technical instruction on the instruments. Snare drum (p. 43), keyboard percussion (p. 86, 87) and timpani (p. 106) are all approached from this conceptual understanding. Unfortunately, Bartlett does not explain how his descriptions of the correct grip, stroke and positioning of the instrument will assist in generating this *resilient blow* which results in the production of a good tone.

Some authors limit their generalizations to the discussion of one instrument only (usually snare drum). Spohn and Tatgenhorst (1967) suggest that there are only two techniques for playing snare drum; the single and the rebounded strokes (p. 23). All patterns played on the snare drum are derived from these two techniques. The authors do not, however, discuss how these techniques are to be developed. Combs (1995) on the other hand, suggests that there are three basic techniques for playing snare drum, the single stroke, the flam and the roll (double stroke) (p. 5). All snare drum technique, he suggests "can be reduced to [these] three basic patterns" (p. 5).

### 2.2.4 Summary

Post-secondary percussion techniques texts offer valuable information about school percussion instruction in the areas of philosophical perspectives, content and pedagogy. It is clear from the discussion that an important trend in percussion education is the insistence on a *musical* approach to instruction. While the rudimental traditions of drumming have been helpful for developing technical skills, it is necessary to use approaches which also develop musical maturity.

A study of the content of these texts indicates several important features that should be present in a percussion curriculum. The basic premise of any course will consist of instruction on the technique, history

and characteristics of all the many and varied percussion instruments. Two other important elements of percussion instruction include the study of musicianship and phrasing, and organization. In addition, teachers should be concerned with attracting and motivating the suitable students to the study of percussion.

Pedagogical implications from these texts indicate that percussion instruction should be (1) *comprehensive*, including both conceptual understandings and exercises for the development of technical skills, (2) *consistent*, providing an understandable approach that applies to all instruments, (3) *sequenced*, so as to facilitate development of skills and understandings, and (4) *conceptually sound*, derived from a sound theoretical base that may be defended.

## 2.3 Private Study Methods and Materials for Percussion

Many materials exist for the private study of percussion. While these materials were never intended for class instruction, they are relevant to this study in that they offer some unique perspectives on what should be taught to percussion students, and what teaching strategies may be employed. The following discussion in no way attempts to either summarize or generalize the large number of documents in this category. Instead, several significant texts have been chosen for this discussion because of their contribution to percussion pedagogy.

The earliest American instructional books for percussion appeared in the 1860's as guides for military drummers (Ludwig, 1963, p. 2). These were books for developing the rudimental style of snare drumming. This style of drumming is based on a set of rudiments, or short rhythmic patterns, that are played in various combinations to create phrases that could be easily recognized and used as tools for communication. Thus the military style of instruction consisted primarily of developing the technical skill to play these rudiments as accurately as possible. Such instruction

was taught primarily by rote. (Blades, 1984, p. 212)

This style of playing and teaching has had a significant influence on the development of materials that have appeared since. Most early private study methods were essentially guide books for the development of the rudiments. However, the nature of these method books has undergone significant change over the years from a predominantly rudimental base to an ever-increasing predominance of skills for playing orchestra and band music. Haskell Harr's method (1937) is a good example of an early attempt to create teaching materials that include more than instruction on the rudiments. He states that:

> The material in this book was compiled by the author to meet the needs of the young student aspiring to become a drummer in the school band and orchestra. Reading music is one of the first requisites of a good drummer ... Only the essential rudiments required to play a drum score are used in this book (p. 1).

This does not mean that the rudimental style has been entirely displaced. In fact the Percussion Arts Society (PAS) published a new list of *international* rudiments in 1984 that are intended to "serve the contemporary percussionist for many years to come" (Wanamaker and Carson, p. 3). However, method books have demonstrated a definite trend away from instruction based on the acquisition of these rudiments alone.

Even the PAS publication demonstrates a desire for a more pedagogically sound system of instruction by including also a shortened list of the seven most *essential* rudiments, and a suggested *order* of instruction (p. 4). These seven rudiments are suggested to be taught in this order: single stroke roll, multiple bounce roll, double stroke roll, five stroke roll, single paradiddle, flam, drag (ruff). This list is important for its pedagogical implications because it includes a skill that till this point was never considered a rudiment, but rather an inferior compromise for lack of ability, the multiple bounce roll. Although this marks a significant departure from

traditional pedagogy, no indication is given as to why these rudiments were specifically were chosen or why they were placed in this order.

In this trend away from rudimentally based instruction, several technical study books have been published which are intended to develop very specific technical skills. These books consist of short exercises, generally one to four measures in length, which are intended to be repeated slowly many times until muscular control is developed. Stone published two such instructional manuals for snare drum (1935, 1961). These books target development through repetitive practice of exercises involving sticking combinations, accent patterns, flams and rolls (both double stroke and multiple bounce) as a means to achieve better technical facility. A similar book was published by Mitchell in 1968 targeting very much the same technical skills. While these books offer much practising material, they include very little instructional information and the exercises are not necessarily presented in any particular developmental sequence. Therefore, any pedagogical strategies are difficult to determine.

A significant development in instructional materials for private study was the publication of several method books which include printed parts from the orchestral repertoire. These books are generally organized in two parts; the first half is devoted to skill development including instructional information for technique and exercises to develop this technique, the second half consists of printed parts from important orchestral compositions which include percussion. Although not all of these books state it so clearly, there is the apparent intention in all of them to "bridge the gap between technique and repertoire" (Friese and Lepak, 1954). There is also the apparent intention to provide a progressive sequence of instruction. Goodman (1948) states this clearly in the introduction to his timpani method (p. 3). The technical section of these books is devoted to guiding the student to the acquisition of the skills necessary to play the orchestral repertoire. However, the significance of these books is not so

much the pedagogical excellence of the instruction for developing technique, but the application of this technique to a musical challenge.

Goldenberg published two such methods, one for keyboard percussion (1948) and one for snare drum (1955). The earlier keyboard method (one of the first such publications) contains virtually no instructional information but presents extensive exercises for technical development, with some attention to a progressive sequence. The scope of this method is limited to two mallet technique. This is quite understandable since at the time of publication few orchestral compositions would have required the use of multiple mallet technique.

Goldenberg's snare drum book also contains little instructional information. The significance of this book lies in the philosophical approach to percussion instruction. Goldenberg claims this method to be "a book of practical, not rudimental, drumming" (p. 2). He suggests that rudimental teaching is intended to develop *stylized facility*, the emphasis being on the correct *procedure* for playing a particular passage. He argues that teaching should focus on the quality of sound produced rather than adhering to any traditional sticking patterns for producing it. Thus no rudiments except the flam and the roll appear. The exercises are intended to prepare the student for performing the parts most often found in bands and orchestras, and thus consist of one page etudes, progressing from simple rhythmic challenges to more difficult ones.

Instructional materials published more recently have tended to omit the inclusion of repertoire. Instead they seem to have focussed more on developing better instructional strategies. Payson's books, for instance, include much more preparatory exercises when a new skill is introduced. In his beginning snare drum book (1978) Payson introduces the buzz (multiple bounce) roll early but not before including a page of instruction and skill development exercises as preparation for playing the buzz roll (p. 13). When it is introduced into a musical application, it is only a very

simplified version of the roll that is presented (p. 14). A similar procedure is followed for the introduction of the flam as well (p. 35).

Payson's beginning keyboard percussion method (1973) also demonstrates this attention to sequence. The introduction of the slurred roll, for instance, is preceded by a series of exercises devoted to developing the skills necessary before putting it into the context of a melody (p. 20).

Peters has recently published two companion methods as well, one for timpani (1993) and one for keyboard percussion (1995). These books are comprehensive in their scope, presenting all "basic techniques" to the beginning student. In addition the large amount of information contained in these volumes, there is also a similar attention to sequence found in the Payson books. The timpani book, for example, includes preliminary exercises for ear training (p. 26), muffling (p. 62) and roll execution (p. 89). The keyboard percussion book contains such sequencing for rolls (pp. 26-29) and various aspects of four mallet technique (pp.144ff). In addition, each of these books not only contains the technical exercises for skill development, but also a series of etudes for application of the technique to a more musical experience.

Finally, several methods have appeared which offer more than just technical development. Hinger's timpani method (1975) and Stevens' marimba method (1979) offer significant information regarding the physical and conceptual aspects of the system used by the author for playing the instruments. The discussions contained in these volumes present to the reader a fairly lengthy discourse on what the authors believe to be the superiority of their system. Stevens' method contains a particularly sophisticated discussion of the *mechanical principles* of playing the marimba, describing in detail the exact motions of the hand and arms that allow of efficient playing. The 590 exercises that follow are intended to develop this system of playing. Likewise, Hinger describes the principles

from which his system of playing is derived, and follows this discussion with a series of exercises and studies which develop these ideas.

Both of these books have become well-regarded in the field of percussion instruction. The Stevens book particularly, has established itself as a method for playing keyboard percussion instruments which is fundamental to most private instruction. The significance of these documents, however, may not be so much the validity of the opinions expressed as it is the fact that the *system* of playing the instruments has been documented. Such documentation invites response and debate, and serves to move forward the development of percussion pedagogy.

Thus it is possible to see some general progressions in development of instructional materials for private study in percussion. The traditional rote learning and rudimental style seem to have lost much support in favour of a more contemporary approach to instruction. Elements of this more contemporary approach would include (1) a theoretical basis for developing a system of technique, (2) more information regarding strategies for technical development, (3) more preparatory development of skills, (4) more attention to appropriate sequence, and (5) more musical application of technical skills.

## 2.4 Summary

The band class methods discussed in this chapter have been shown to be inadequate in their development of teaching strategies for instruction on the percussion instruments. There have been problems with omissions of important concepts and skills as well as an underdeveloped process for the presentation of instruction. General misunderstandings about the nature of acquiring these concepts and skills has probably compounded the problem.

The resources available from post-secondary percussion techniques texts and methods for private study in percussion have been shown to

offer significant contributions for the development of new and better band class instructional materials. The development of percussion instruction in these areas has suggested that a *system* of instruction is required which is based on a *musical* approach to the instruments. This system of instruction must present content which includes *technical* skills and concepts for a wide variety of percussion instruments, *musical* skills and concepts, and *organizational* considerations. Furthermore, the system of instruction in which this content is presented must be *comprehensive* in its inclusion of information and skill development experiences, *consistent* in its presentation of technical instruction, *sequenced* for optimum learning potential, and *conceptually sound* in its theoretical foundation.

While it is apparent that the designers of band class method books have followed some of the trends in contemporary percussion education, it is also apparent that they have not had the same understanding of the skills development instruction demonstrated by some of these other authors. The authors of private instruction methods have shown that the search for better instruction has lead to the need for (1) a better theoretical foundation for developing technical skills, (2) more information regarding strategies for technical development, (3) more preparatory development of skills, (4) more attention to appropriate sequencing, and (5) more musical application of technical skills. It would be appropriate for band class instructional designers to make use of this information.

However, while the material from private study methods may be of great use in developing the parameters for band class instructional design, it would be inappropriate to simply take the information from these methods and transplant them into the band class methods. Yet it is apparent that such borrowing of instructional strategy is bound to happen and has happened. A look at the descriptions for the introduction of the flam, for instance, will demonstrate this. And we have already seen how this has had some rather detrimental effects on the effectiveness of the

band class instructional materials. Thus while the private study methods and techniques class texts may be helpful in determining directions for developing instruction for percussion, the teaching strategies employed by private instructors may not be best suited to the needs of the band class percussionist.

# Chapter 3

## PROCESS AND PROCEDURE

The purpose of this study is to develop teaching strategies that may be incorporated into instructional materials for teaching band class. The rationale is that good materials will enable better teaching. While good teaching can take place whether or not good materials and resources are available, it is also true that quality materials can aid the task of teaching well.

The review of instructional materials has indicated that most seem to have relied heavily on the traditional methods for teaching percussion privately. These traditional teaching methods have been the source of instruction for the most accomplished percussionists of our day. One might therefore assume that what has been successful for these professionals would also be successful for teaching the band class percussionist. However, these methods were never intended for band class instruction. Such application overlooks the significance of the teaching environment for which they were intended, and for which they are best suited.

These materials are at their best when instruction is delivered by a percussion specialist on an individual basis. Much of the instruction in private study would be verbal and visual. In this setting the student may observe repetitive modelling of the skills and receive constant and immediate input as to his progress. The instructional materials would be used to offer opportunities to practice what has been learned. They assume that skills have already been addressed by the teacher.

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Unfortunately, the band class setting does not offer opportunities for such individualized instruction. While these materials can offer much valuable supplemental study to the school band percussionist, class instruction based on these materials *alone* does not adequately address the challenges of teaching percussion as a minority instrument in a class consisting primarily of wind instrumentalists. Because the materials often require prior development of skills, significant individualized instruction must precede any attempt at executing the exercises to be practised. Thus teaching can often be rather inefficient and ineffective because it is not possible for the band class teacher to devote the individual time to each student that these materials demand.

What is needed are new materials for percussion instruction for the band class which account for the specific challenges of this teaching environment. This chapter will outline the *process* by which such materials could be developed.

## 3.1 The Process of Developing Instructional Materials

The effectiveness of instructional materials depends in large part on the manner in which they were developed. Such materials must be designed with the purpose of being relevant and effective. The careless presentation of information, without consideration of *what* information is required and *how* it may be most effectively conveyed, is pointless.

The need for more effective instructional materials for band class percussion instruction is an indication that present methods have been inadequate in meeting the needs of contemporary percussion education. This lack of an adequate band class percussion method may be the result of an inadequate process of design and development. Thus it is necessary to reconsider the process of developing such materials.

The author believes that instructional materials must be developed from a process of investigation. It is not sufficient to take teaching

strategies out of context and insert them into a new delivery system. Methods that are suited to private instruction may not be the most appropriate approach for mixed instrument instruction. A responsible methodology for teaching percussion in the *band class* must stem from an approach to instructional design that targets this *band class* delivery system specifically.

The field of instructional design has contributed much to our understanding of how to develop more effective and efficient teaching resources. While much debate still accompanies such discussions, there are some general assumptions that may serve as the starting point in developing materials for teaching percussion in the band class.

The starting point for our investigation will be to determine an adequate process for developing instructional materials. Several authorities may be helpful here. For example, Good (Gagne & Briggs, 1988) suggests that instructional development must focus on:

1) analysis of the needs and goals
2) analysis of the resources
3) scope and sequence
4) course structure and sequence (p. 238).

Gustafson and Tillman (Briggs, Gustafson and Tillman, 1991) summarize their findings of other instructional designers and suggest that all instructional design models specify these common procedures:

1) analyse what is to be learned
2) specify who is to learn
3) describe in detail how the learning is to occur
4) conduct formative evaluation
5) conduct a summative evaluation of the effectiveness of the instruction (p. 9).

Since it is not within the scope of this study to develop a complete percussion curriculum but rather the foundations upon which a percussion

curriculum may be formulated, it is appropriate to consider what the authors above recommend in the stages prior to the evaluation stage. Our audience has already been identified as the school band percussion student, and the available resources have already been discussed. Thus, our study must yet address the issues of (1) what is to be learned, determined by analysing the needs and goals of instruction, and (2) how the learning is to occur, including the elements of scope, sequence and structure.

## 3.2 Analysis of the Needs and Goals of Instruction

A good way to determine what must be taught in a band class percussion book is to determine what percussion students will need to know to meet the demands of the music they will play. Thus the needs and goals of percussion instruction can be effectively determined through a study of compositions for band.

As mentioned previously, it is generally the contemporary music for band that has offered the greatest challenges for percussionists. To determine the goals for percussion instruction, therefore, it will be necessary to gather a representative sample of scores for band that demonstrate the state of contemporary composition for percussion; the manner in which contemporary composers have treated the percussion instruments. These scores will be studied to determine what skills and understandings must be acquired by the contemporary percussionist. Some elements have been specifically targeted as important factors in determining the content of a percussion curriculum. These include:

1) the number of percussion instruments required

2) what variety of percussion instruments are required

3) what technical abilities and understandings are required

4) what musical abilities and understandings are required

Applying these criteria to each score will serve to identify the knowledge and skills required to perform these compositions. These requirements are the substance of what percussionists must learn through their instruction in band class. Thus the needs of the contemporary percussionist determine the goals of the band class percussion instruction. Consequently, the knowledge and skills identified will constitute the content of the instructional materials for teaching band class percussion.

## 3.3 How Learning is to Occur

The process of determining how learning is to occur has often been omitted from the development of instructional materials for private study in percussion. We have tended to teach as we have been taught. Some of these inherited methods may be successful for the percussion teachers who use them, but it may not be good educational strategy to teach a certain way because that is the way it has always been done. The author believes that instruction should be based on sound teaching principles, that may be tested and defended. Rather than simply teaching the way we were taught, instruction should be systematically developed, based on the best teaching strategies.

The impetus for this study was an observation that many seemingly sound educational strategies were not being invoked in the instructional materials. Several problems appeared early in the research of these materials. It seemed that percussion students were being taught somewhat random facts about how to play individual percussion instruments without being taught about the principles of playing the percussion instruments. Secondly, while there seemed to be some attempt at sequencing the instruction, there were often large gaps in skill development sequences, and strategies that did not seem to be effective. Thirdly, there seemed to be little connection between what was taught to the percussionists and what was taught to the rest of the class.

It appeared that many things could be done to improve the instructional design and strategies for band class percussion instructional materials. While a number of possible modifications to existing methods were easily identified, this manner of developing new materials seemed greatly inadequate. The task was to find a systematic way of determining a set of principles to guide the development strategies which would result in more efficient and effective teaching.

It was presumed that common sense principles could form the basis for developing these ideas, such as *start with the simple and move to the complex*, or *teach one thing at a time.* While these strategies seemed valid, it was desirable to find support for these suspicions and determine whether there were not in fact other strategies which would also assist in formulating a more thorough proposal for instructional design.

A sampling of authorities in the fields of educational psychology and instructional design were consulted in order to determine what types of criteria might be used to formulate the teaching strategies, and whether there was any agreement on their usefulness.

Here we will be concerned primarily with theories of instruction and learning. It is not the intent of this study to select any particular theory over another, as there seems to be a considerable lack of consensus among authorities. Instead it may be more helpful to identify understandings of instruction and learning which have gained general acceptance. These will serve as a basis for developing specific teaching strategies for teaching percussion.

## 3.4 Designing Instruction

The process for developing instructional materials has indicated two areas of investigation to be undertaken; (1) the needs and goals of instruction will dictate *what* is to learned and (2) educational authorities

will offer theories for how students learn and *how* instruction can aid that learning. The final stage then in the process for developing the instructional materials involves merging the needs and goals of the instruction with the understandings of how students learn.

The content of instruction must be presented in a manner that will best facilitate learning for the student. While instructional materials must contain the content of the course, it will have little meaning for the student if it is not presented in a manner that is easily understood. Thus it seems reasonable to suggest that the best way to aid the learning of band class percussionists is by applying the *theories* of learning and instruction to the *content* of the percussion instruction for band class.

The remainder of the study develops some educational foundations and strategies for teaching percussion in the band class based on the process described above. Chapter 4 addresses the proposals from this chapter in three parts: *part one* examines a sampling of the contemporary repertoire for winds and percussion to determine what is required of percussionists; *part two* examines some strategies and educational models to determine what might constitute good teaching; *part three* attempts to formulate what might constitute good strategies for *percussion* instruction.

Chapters 5, 6 and 7 develop applications of the investigation to band class instructional materials for percussion. Chapter 5 discusses the foundations for percussion instruction and a general *approach* to teaching percussion in light of the contemporary literature for band. Chapter 6 proposes some specific strategies for teaching the skills required by the contemporary percussionist that are intended to create a better understanding of the skills and concepts. Chapter 7 proposes some specific strategies for incorporating such instruction into the materials for teaching percussion as part of a mixed instrument class where percussion instruments are in the minority and winds are predominant.

# Chapter 4

INSTRUCTIONAL DESIGN

## 4.1 Band Repertoire

The literature of the school band is the literature for wind instruments and percussion: the concert band or wind ensemble. Therefore, a survey of compositions for this instrumental grouping is necessary to determine what they demand of the contemporary percussionist. The pieces discussed here are representative of works for wind ensemble that have made significant contributions to the development of percussion performance. Many of these composers and their compositions have gained international recognition as important works for winds and percussion.

The compositions discussed below are intended for the most advanced performers, demanding of the percussionist the highest calibre of technical and musical development. In this regard they represent the most mature level of skills and concepts which students of percussion must strive to attain. This study proposes that works such as these should guide the development of curriculum for teaching percussion in the school band so that students will be prepared to meet the challenges of modern compositions for wind and percussion instruments.

Only a select few compositions are included in this survey. The demands of these few significant works, which exemplify the degree to which percussion performance has evolved, are noted and discussed.

### 4.1.1 Instrumentation and Technique

Each of these compositions requires a percussion section comprised of a minimum of five percussionists, including the timpanist.[6] While this size of percussion section has not been unfamiliar historically, a section of five percussionists would have at one time seemed large whereas today this would be the minimum percussion personnel generally required for a wind ensemble concert. Indeed there are contemporary compositions requiring as many as 10 or more percussionists.[7]

In addition, the responsibilities of each percussionist in the section have multiplied in modern compositions. A typical percussion section in the first half of this century would have consisted of a timpanist, bass drum player, snare drum player, cymbal player and perhaps a glockenspiel/xylophone player, one or more of whom might double on a second instrument. In fact, the combined instrumentation for percussion in the three suites for band by Holst (1921), Jacob (1928) and Vaughan Williams (1924) includes only timpani, snare drum, bass drum, cymbals, tambourine and triangle. Each of these pieces requires no more than four percussionists.

Modern compositions, in contrast, generally require each percussionist to play a large number of instruments. Schwantner's, ...and the Mountains rising nowhere (1977), for instance, requires that each of the six percussionists (except for the timpanist) be responsible for not less

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[6]It has been the practice in orchestras to separate the position of timpanist from the rest of the percussion section, such that the timpanist tends to perform only on timpani and other percussionists tend not to perform on timpani. A similar tradition seems to be developing among professional wind ensembles as well. For the purpose of this study, however, the timpanist shall be considered a percussionist since it is through the study of the percussion instruments that one learns to be a timpanist.

[7]For instance, Hilliard, 1992.

than seven percussion instruments. Likewise Colgrass (1985, <u>Winds of Nagual</u>) writes for twenty-six percussion instruments to be played by six percussionists and Wilson requires some thirty different instruments for five percussionists (1988, <u>Piece of Mind</u>).

At the same time that instrumentation lists for percussion have grown larger with contemporary works, the *variety* of percussion instruments employed has also multiplied. The Colgrass (1985) piece for instance uses this list of instruments: Parsifal bells, vibraphone, crotales, chimes, xylophone, marimba, bass drum, 3 gongs, 4 large suspended cymbals (18", 20", 22", 24"), 3 large pairs of crash cymbals (20", 22", 24"), 1 pair 8" crash cymbals, 5 cowbells of graduated pitches, temple blocks, bongos, timbales, snare drum, tenor drum, field drum, and a set of four timpani, as well as piano and celeste[8]. Likewise Schwantner (1977) writes for marimba, 2 vibraphones, 2 xylophones, 2 glockenspiels, chimes, crotales, 2 water gongs, 3 bass drums, five sets of 2 suspended cymbals, three sets of 2 triangles, bell tree, timbales, a set of 3 tom-toms, two sets of 4 tom-toms, 2 tam-tams, and a set of four timpani. Bedford (1982, <u>Sun Paints Rainbows On The Vast Waves</u>) also has an unusual instrumentation, requiring 4 suspended cymbals of graduated sizes, 8 tuned wine bottles, 2 xylophones, glockenspiel, marimba, 4 tambourines, snare drum, tenor drum, bass drum, tam-tam and a set of four timpani.

Furthermore, if these three works were to be performed on the same concert, each percussionist, save the timpanist, would be responsible for ten or more instruments. In some pieces, such as the Colgrass, even the timpanist must play numerous instruments.

In addition to the number and variety of percussion instruments that are required of today's percussion section, the techniques for playing these

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[8]While piano and Celeste and usually played by a keyboard specialist, they are sometimes considered members of the percussion family of instruments.

instruments are expanding. The use of multiple-mallet technique on the keyboard percussion instruments has become a significant part of the new band literature. It is now regarded as an essential skill for the wind ensemble percussionist, yet even fifty years ago it would have been difficult to find a composition that required such sophisticated technique.

Development in timpani technique generally has more to do with the use of more pitches, and a wider range of pitches. Pieces by Persichetti, Schwantner and Gillingham demonstrate the *wide range* of pitches required of the modern wind ensemble timpanist. Such pieces demand that the timpanist handle a larger number of drums since notes as low as *D* (Gillingham, 1991, Heroes, Lost and Fallen) and as high as *c'* (Persichetti, 1958, Symphony For Band) indicate that a basic set of five timpani would be required to play all the pitches within that range.

Pieces by Dalby and Persichetti show the large *number* of pitches that may be required of the modern wind ensemble timpanist. With more pitches comes the need for greater skill using the pedal to change pitches quickly and accurately.

In addition, timpanists are at times required to utilize new techniques such as striking the bowls, striking unconventional parts of the drum head, or playing rim shots. Occasionally very specific sounds are requested such as setting a suspended cymbal up-side down on a timpani head on which a roll is sustained while the timpani pedal is used to raise and lower the pitch.

The ability to play several instruments at once (Bedford, 1982),[9] as part of a multiple percussion set up (Persichetti, 1958)[10], or in rapid succession (Schwantner, 1977) are now important technical skills that all

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[9]In this piece percussion 4 must play bass drum and tambourine simultaneously.

[10]Three snare drums grouped together as one instrument with three pitches.

percussionists must develop. Such situations pose technical challenges in adapting quickly to the touch and response of unlike instruments. In addition, contemporary composers are often requesting the use of different and often unconventional beaters for practically every instrument in the percussion section. This heightens the challenge of striking each instrument with adequate sensitivity.

Additional techniques often arise out of a composer's desire for more unique and distinctive sounds. Often what seems a rather isolated case soon becomes a fairly common occurrence. A string bass bow (Schwantner, 1977), for instance, has been used to obtain sustained sounds by dawning it across the edge of a cymbal, tam-tam vibraphone or other such instrument. This has become a fairly common practice today, yet not long ago it was quite original. As the number and variety of unconventional techniques build, more time and attention is required on the part of the percussionist to develop the technical dexterity to elicit the desired sounds from the instruments.

It is apparent that to handle such a large number and variety of percussion instruments the modern percussionist must have well developed technical and organizational skills. The technical skills required would include the mastery of *all* modern and traditional techniques. The organizational skills required would include; (1) the ability to coordinate personnel for expedient performance of each and every instrument, (2) the ability to organize the placement of large numbers of instruments and accessories for efficient access, and (3) the ability to organize the execution of multiple tasks in succession.

## 4.1.2 Musical Challenges

The expanding number, variety and technical innovations of the percussion instruments has allowed modern composers to create musically

more challenging parts for percussionists. The contribution of the percussion section is no longer limited to marking the rhythmic pulse and adding the occasional punctuating crash. The percussion section has become an important *musical* force in the ensemble. Composers have been consistently demonstrating that the percussion instruments can offer musical possibilities equal to that of any other section in the ensemble. They contribute substantially to the melodic, harmonic and rhythmic development of many new compositions in addition to providing a tremendous variety of colours and textures. The sheer number and variety of musical possibilities have made the percussion section an integral part of the *conception* of many new compositions. This is a significant development in compositional strategy in contrast to the practice of simply adding a few percussion instruments to the score once the work was otherwise completed.

The rhythmic function of the percussion section has remained one of its most compelling assets. The very nature of the instruments, capable of producing extremely distinct attack, make them well suited for executing sharp, articulate passages. New compositions, however, are making the rhythmic responsibilities more challenging. In addition to the use of refreshingly new ethnic rhythms from various cultures, composers are exploring completely new ways of using the percussion instruments. In Bedford's, Sun Paints Rainbows on the Vast Waves (1982), for instance, each of the four xylophones play arpeggiated passages with rhythmically contrasting lines which together produce not only a rhythmic composite of uninterrupted sixteenth notes, but also outline the harmonic progression of the passage. Persichetti (1958), as another example, uses timpani and un-pitched drums to create a sound collage based on a rhythmically intricate interplay between the three percussionists, which serves as a backdrop for the slow-moving lines of the winds.

Even the more conventional bass drum is now recognized as a much

more useful and expressive instrument than its historical role as *time-keeper* would have suggested. Schwantner (1977), for instance, uses three bass drums and timpani to play an extremely intricate but *unison* passage[11] which marks a significant development in the use of the instrument and the demands placed upon the performer.

The melodic and harmonic functions of the percussion section in the past have been primarily one of a supportive role. The xylophone or glockenspiel would typically be given the task of doubling the flute line, the timpani would typically provide support for the bass line. Today the number and variety of keyboard percussion instruments available to most ensembles have afforded contemporary composers the opportunity to be more adventurous in their use of melodic percussion instruments.[12]

Composers such as Reed (1954), Colgrass (1985), and Schwantner (1977) have given the melodic percussion instruments more extended and more soloistic passages. Reed, for instance, begins his composition with solo chimes, and later assigns the solo melody to the marimba. Schwantner (1977) makes extensive use of a variety of keyboard percussion instruments throughout his composition, sometimes as part of a multi-instrument sonority and sometimes as completely independent voices. Colgrass (1985) as well uses Parsifal bells, crotales, vibraphone and chimes as independent voices in the opening of Winds of Nagual, while later the vibraphone joins the alto flute and alto saxophone in a short trio passage which highlights the accompaniment potential of the vibraphone. Indeed the harmonic potential of the melodic percussion instruments, particularly

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[11]This passage is perhaps a reflection of the profound impact that orchestral composers such as Stravinsky have had on development of percussion.

[12]Reciprocally, the number of new compositions requiring these instruments have encouraged more ensembles to acquire them.

the vibraphone and the marimba, has made them well utilized instruments with contemporary composers who have taken advantage of the rich harmonies available through the use of sustained four voice chords.

Similarly, the musical role of the timpani has broadened in the modern repertoire as contemporary composers have recognized their greater musical potential. In the past the timpani were typically limited to the tonic and dominant notes of the key for each piece and in this way functioned primarily as support for the bass line. Today, in addition to these more conventional roles, composers are also using the timpani in much more imaginative ways. The timpani passage for the opening to Persichetti's Symphony for Band (1958), for instance, has little resemblance to a bass line, but is rather more melodic in nature. Likewise, Schwantner (1977) writes passages for timpani that resemble more melodic material. In Gillingham's Heroes, Lost and Fallen (1991), four percussionists are assigned to play a sustained roll on each of four timpani, thereby using the timpani as a four voice ensemble to furnish the harmonic material for those measures.

The function of the percussion section in providing texture and colour has always been an important role. The growing number of instruments and techniques, however, have provided more opportunities for composers to create new colours and textures over which to build melodic material. The sheer variety of sounds available from percussion instruments makes them well suited to that task. Some of the more imaginative textural passages include the opening of Gillingham's Heroes Lost and Fallen (1991) in which marimba, chimes and bowed vibraphone (two percussionists, each with two bows) lay the harmonic groundwork for the melodic material in the winds. A few measures later vibraphone, crotales and bells play rapid triplet passages, but again, only as background to the slow moving melodic material. Similar uses can be found in Ron

Nelson's <u>Morning Alleluias</u> (1991) where again the keyboard percussion instruments are used to create both harmonic and rhythmic backgrounds for the winds. The opening of Persichetti's <u>Symphony for Band</u> (1958) has already been mentioned with regard to the textural function of the drums and timpani through subtle but intricate rhythmic figures. Again the winds carry the melodic material over this background of rhythmic colour. Equally notable is Bedford's <u>Sun Paints Rainbows on the Vast Waves</u> (1982) in which overlapping rolls on four different sized suspended cymbals create an ever moving wash of sound.

### 4.1.3 Notational Challenges

All of the aforementioned developments in the writing for percussion has meant a corresponding development in the demands on the percussionist's reading ability. Notation in the percussion parts has become ever more challenging for the percussionist due to the amount and intricacy of the material that one must read. With increased rhythmic interest comes an ever more complex rhythmic notation. With increased melodic and harmonic responsibilities comes an extended range of notes and proliferation of notes within the written parts.

In addition the increase in new techniques and unusual instruments has given rise to the need for composers to develop notations to represent the desired sounds. Some new pieces include graphic forms of notation which have little to do with the skills developed for reading conventional notation. Such parts demand the development of an entirely new set of reading skills.

### 4.1.4 Summary

This section has highlighted aspects of contemporary wind ensemble literature that have contributed to the development of percussion performance. Developments in (1) *instrumentation*, (2) the *musical*

*functions* of the percussion instruments, and (3) *notation* have been noted as areas that have had significant impact on what the modern percussionist is required to know.  More specifically, the increased number and variety of percussion instruments required to play the new literature has given rise to the need for development of sophisticated technical and organizational skills.  Developments in the way the percussion instruments function within the ensemble have demanded that percussionists develop a greater musical awareness so as to be sensitive to the changing roles of the percussion section.  Finally, developments in notation have demanded greater reading and interpretive skills of the modern percussionist.

## 4.2 Some Theories of Instruction and Learning

The findings of the previous section have helped identify the needs of instruction for percussion in the Band Class.  This will serve as a guide for determining the content of the band class instructional materials.  However, in order to deal effectively with the content of instruction it is necessary to determine not only *what* is to be taught but *how* it is to be taught.

### 4.2.1 Educational Psychology (General Directions)

The field of educational psychology has contributed much to our understanding of the learning process.  While it would be impossible to discuss thoroughly all the research in this field, a brief look at some of the highlights of the research will prove most helpful.

The literature seems to suggest that the subject of instruction and learning can be grouped roughly into two categories: (1) theories of instruction for conceptual development and (2) theories of instruction for skills development.

**conceptual development**

The development of musical concepts is an important component of Band Class instruction. The challenge in designing the instruction is to determine what strategies may be most effective in teaching for conceptual development and musical understanding. A brief study of the publications by educational psychologists reveals that several general principles for teaching concepts seem to come up repeatedly. These should prove helpful in developing specific strategies for teaching musical concepts to the percussionists in the band class.

*1 sequencing*

Most authorities advocate the importance of organizing knowledge. The term *schema* is often used to identify the organization of knowledge in a manner similar to that of an outline. Slavin (1994, p. 215) suggests that a schema consists of networks of connected facts and concepts that provide structure for making sense of new information. The importance of such organization of knowledge is that information that makes sense and has significance to students is more meaningful than inert knowledge and information learned by rote (p. 218).

Thus the structuring of information in an organized manner is one of the most important aspects of designing instructional materials. Care must be taken to sequence materials in a manner most conducive to learning. The literature on this matter suggests that there are several methods of arranging information into a ordered sequence.

*familiar to unfamiliar*

First, it is helpful to start with the familiar. New information is best understood if it is related to something known. Slavin (1984) states that it is important to link new material with previously learned knowledge because "information that fits into an existing schema is more easily

understood, learned and retained"(p. 215). Mouly (1973) elaborates by saying that "because potentially meaningful material can be related in a non-arbitrary fashion to relevant ideas already established in cognitive structure, the learner is able to use his existing knowledge as the basis for assimilating large quantities of new materials and to expand the base of his learning matrix in the process"(pp. 281-282). Gustafson and Tillman refer to this sequence as *known to unknown* and suggest simply that such sequencing is intended to help students build on what they already know (Briggs, Gustafson & Tillman, 1991, p. 177).

### simple to complex

Secondly, it is important to start with simple ideas and move to the complex. Mouly suggest that "a difficult topic should be presented simply at first, with the level of difficulty progressively increased as the level of the student's sophistication increases" (p. 315). Gustafson and Tillman (1991) caution, however, that such sequencing must be considered in terms of the "complexity as perceived by the learner" (p. 178). What seems to be simple to the teacher may be quite complex to the student.

### easy to difficult

Sequencing instructional material in an easy to difficult pattern offers some obvious advantages. Gustafson and Tillman (1991) suggest two reasons for using this type of sequencing: (1) easier topics presented early provide learners with successful experiences which may increase their motivation to learn later, and (2) later learning may be facilitated by the knowledge and skills learned with easier topics (p. 178).

### general to specific

A fourth method of sequencing information is to present general ideas before specific facts. The purpose, suggests Slavin (1984), is to help

students anchor and interpret new information (p. 231). Mouly (1973) states that "there can be no objection to teaching facts... What is objectionable is that facts are taught as ends in themselves rather than in relationship to the basic concepts and principles in existing cognitive structures to which the new input can be meaningfully related" (p. 367).

The *Elaboration Theory*, as presented by Reigeluth and Stein (Reigeluth, 1983), is one model of a *general to specific* approach for dealing with larger topics (p. 343). They state that the elaboration theory of instruction "starts with a special kind of overview of the simplest and most fundamental ideas within the subject matter; it adds a certain amount of complexity or detail to one part or aspect of the overview; it reviews the overview and shows the relationships between the most recent ideas and the ideas presented earlier; and it continues this pattern of elaboration followed by summary and synthesis until the desired level of complexity has been reached on all desired parts or aspects of the subject matter." The authors claim that the advantage of this approach is that it "ensures that the learner is always aware of the context and importance of the different ideas that are being taught" (p. 341).

The *special kind of overview* which the authors describe is referred to as the *epitome*. This is not to be confused with a summary; it is not intended to summarize the course content. Rather its purpose is to present the most fundamental ideas which convey the essence of the entire content (p. 343).

## 2 prerequisites

A second principle for conceptual development concerns the importance of prerequisites. Authorities here suggest that there are times when new information cannot be learned if prerequisites have not first been addressed (Slavin, 1984, p. 308). For instance, a student cannot learn division if he has not learned to subtract.

*3 examples*

Once a concept has been explained, it is helpful for students to be shown examples to clarify and refine their understanding (Slavin, 1984, p. 246). Both positive reinforcement examples and negative reinforcement examples are helpful. In other words, examples that show what it *is* and what it is *not*, can both help clarify the parameters of the concept discussed.

*4 processing*

Lastly, after students have received information, it is important for them to have opportunities to process it. Slavin (1984) suggests that students are processing information when they manipulate it and analyse it (p. 218). Mouly (1973) concludes that this provides "an opportunity for cognitive reorganization and the development of insight" (p. 284). In other words the information alone means little without the opportunity to use it in some tangible way.

**skills development**

Much of what percussion students are required to learn involves sophisticated psychomotor skills. While the development of such skills cannot necessarily be separated from conceptual development, it does deserve specific attention, as suggested by the growth of research in the field of psychomotor learning. The research indicates that there are several factors which tend to consistently enhance skill development.

*1 sub-skills*

The focus of much discussion in this field centres around *sub-skills*. Authorities such as Kay (Bilodeau, 1969) suggest that a new skill is acquired as part of an existing routine through built up complexity of sub-

skills (p. 35). Each sub-skill, with practice, can become less a part of the conscious effort and more a part of the sub-conscious operations. Mouly supports this theory, suggesting that "an essential aspect of the learning of skills is the organization of sub-skills into successively higher levels of integration and of automation in performance" (Mouly, 1973, p. 331).

Kay gives the example that walking is not one skill, but a "complex of delicately coordinated motor activities involving posture, balance, and locomotion" (Bilodeau, 1969, p. 40) Further:

> If we think of walking as a series of subskills, neatly
> coordinated, then in the case of the adult each subskill is
> sufficiently well practised to be preprogrammed and run off
> with the minimum of attention. It may be argued that this is
> necessary with all speed-stressed continuous skills where
> actions have been preset and then relegated to the hierarchical
> level where they no longer require constant monitoring. (p. 40)

### 2 sequencing

As with conceptual development, skills development is best structured around a well organized sequence of instruction. Gropper (1974) refers the divisions of such instruction as *criterion behaviours*, which can further be divided into *sub-criterion behaviours* (p. 7). He states that in addition to specifying the sequence in which each criterion behaviour is to be practiced, instructional strategies should specify the sequence of all sub-criterion behaviours as well. Aronson & Briggs (Reigeluth, 1983) agree that "part skills are often best taught separately before they are practiced together" (p. 88).

### 3 practice

Authorities generally all agree that practice is conducive to better performance of tasks. It is through the repetition of movements that a student learns to reinforce correct movements and eliminate incorrect movements. In doing so, practice enhances the likelihood of consistent

performance of the task.

*4 feedback*

Authorities have determined that it is important, in developing psychomotor skills, for students to receive evaluation of their performance. The consistency and promptness of the evaluation directly impact on the effectiveness of the feedback they receive. That is, the more often feedback is given the better the rate of improvement. Similarly, the more immediate the feedback the better the rate of improvement.

It is significant for this study to note that authorities generally categorize feedback into two types, extrinsic and intrinsic (Kerr, 1982, p. 77). Extrinsic feedback is that which the students receive from an external source, such as the teacher, indicating the degree to which the student has successfully accomplished the task. Intrinsic feedback is that which the students receive form their own senses as the task is performed, evaluating their own performance against that of the mental image of the ideal performance. Kerr (1982) suggests that in most learning situations students will receive both intrinsic and extrinsic feedback (p. 96). Thus both types must necessarily be considered when developing instructional materials to be used in the classroom. Bruner (1966) suggests further that feedback must serve the purpose of helping the learner to become self-sufficient (p. 53).

## 4.2.2 Personal Observations

The theories discussed above do not represent a summary of the field of educational psychology. They are generalities that point us toward some understandings of instructional design which will be helpful in developing specific strategies for teaching percussion in the school band class. However, while these theories may be helpful in developing instructional materials, certain questions still remain. It seems clear that

further investigation may be helpful in addressing specific issues regarding musical instruction on the percussion instruments.

This study has led to the identification of additional principles not specifically addressed in the educational literature above. They are derived from personal experience and careful consideration of the problems facing band class teachers. These principles, applied to the challenges of teaching percussion in the school band class, may be significant for the development of band class teaching strategies.

*physical and physiological awareness*

Many skills involve learning to control and manipulate one's environment. To play the percussion instruments, students must learn to control not only their own body movements but the movement of the objects with which they wish to interact. The author believes that such manipulations may be more effectively developed when the student becomes aware of how they occur. Thus, making efficient body movements will necessitate at least a simple understanding of how the joints and muscles move naturally. Manipulating objects effectively will necessitate at least a simple understanding of how objects in our world tend to move and interact. When students are able to feel the natural movements of their bodies and the objects around them, and understand these processes even a smal amount, they will be better equipped to manipulate them as they wish.

*terminology of instruction*

The language of instruction has a significant impact on how successful the instruction is. The *choice* of words used to describe an idea can greatly influence the *understanding* of the idea. The words convey not only the *content* of the information but thoughts and feelings about it as well. In teaching technical skills to students, words used for instruction

which have a similar meaning but different connotations may result in different physical responses from the student. Careful attention to the use of appropriate terminology will guide students to the correct responses. Thus it would seem reasonable to suggest that instruction be carefully constructed to use terminology that conveys both the *content* and *meaning* of instruction.

*speed of practice*

It has been mentioned earlier that skills development is best structured around a well organized sequence of instruction. The division of these skills into sub-skills has also been noted as an important step in skills development. Furthermore, it is important to provide opportunities to practice skills. It would seem logical to add to this list that it is helpful to begin each new skill or sub-skill with slow practice. In effect such practice would constitute a form of sequenced instruction: slow practice to fast practice. Performing a new skill slowly allows the student the opportunity to ensure that the movement is correct. Attempting to perform a motor skill at a speed greater than that at which the student can control the accuracy of the movement seems counter-productive. As students develop the ability to control the movement accurately, they may find it easier to execute the task at greater speeds.

*sensory processing*

The opportunity to process information has been mentioned with respect to the development of concepts. While not specifically mentioned as part of skills development, it would seem logical to also provide students with the opportunity to process the *sensory* information they receive when practising a new skill or sub-skill. This would involve structuring instruction to allow sufficient time between executions for students to *prepare* and *evaluate* each execution. Ed Lisk (1987) suggests a similar

understanding when he states that his exercises must be performed very slowly in order to give students time to think (p. 21). Stevens (1990) also agrees suggesting that sufficient time between each note is necessary for the evaluation of each collision (p. 101).

### knowledge of intent

If the goal of instruction is to help students learn, then instruction must be structured to facilitate learning. It seems logical then that instruction should not only give information about *how* to proceed with a specific task, but also *why* it should be done this way. Knowing why a task must be performed a certain way gives students the tools to make decisions about their progress. Thus students become more involved in the learning process and more responsible for their own success as learners.

### focussing attention

Whether teaching for the development of concepts or skills, it would seem logical to teach one thing at a time. This gives focus to the instruction, allowing students to direct all their attention to one task. Presenting several concepts or skills together may pose a distraction to the student, making it difficult for them to gain a clear understanding of any of the instruction.

### directing class instruction

Class instruction is intended to help groups of students learn together. Thus it is most appropriate to direct instruction to the entire group of students at once. Teaching different concepts and skills to different groups of students in the class not only means extra work for the teacher, it also leads students to distraction because their attention is held better when they are specifically addressed by the teacher. While it may be necessary at times to address the needs of specific groups in the band

class, it seems logical that concepts and skills that *do* apply to all students should be taught to the entire class in the same lesson. This will make more efficient use of teaching time and help students stay focussed.

### 4.2.3 Summary

Educational psychology has provided many theories of instruction and learning. From the wealth of information available, a few general principles for guiding instructional design have been identified. These principles were discussed in the context of two specific areas of instruction, *conceptual development* and *skills development*. While there seemed to be a lack of consensus in many areas of discussion, certain common theories did emerge.

Evidence seemed to indicate that instruction for conceptual development can be enhanced by; (1) organizing information into a meaningful *sequence of instruction*, (2) ensuring that *prerequisites* have been addressed, (3) including *examples* that clarify the parameters of the concept, and (4) providing opportunities for students to *process* information. Skills development should engage instruction which (1) segments the task into its various *sub-skills*, (2) organizes tasks into a logical *sequence of instruction*, (3) provides ample opportunity to *practice* the task, and (4) imparts consistent and prompt *feedback*.

In addition to these theories, several common sense strategies were assumed to be true: (1) It seemed apparent that it would be more logical to first understand the way things naturally tend to move before embarking on instruction that intends to manipulate such movements; (2) the words used for instructional purposes should be chosen for their value in leading students to correct responses; (3) it seemed logical that students would gain a greater understanding of a task if they were taught both *how* to proceed and *why*; and (4) it seemed to make sense that instructional structure for a class would direct instruction to the entire class whenever

possible. It also seemed logical that instruction should (5) teach one thing at a time, (6) begin slowly and (7) allow sufficient time for students to evaluate the sensory information they receive.

## 4.3 Strategies for Percussion Instruction in the Band Class

In section 4.1 certain factors that characterize contemporary compositions for wind and percussion instruments were identified. These factors were used to determine what should be the *content* of instruction in band class percussion. Section 4.2 presented instructional theories and strategies to guide the development of instructional materials. The next step in the instructional design process is to integrate the *content* of percussion instruction as developed in section 4.1 with the *theories of instruction and learning* presented in 4.2 to develop an efficient and effective approach to teaching percussion in the band class.

The discussion earlier in this chapter has indicated that two general areas of percussion instruction must be targeted, conceptual development and skills development. These will form the basis for discussion on teaching strategies for developing the percussion student. The conclusions here will endeavour to address the question of what strategies will best facilitate learning to play the percussion instruments.

Neither of these two areas, however, adequately address the unique challenge of teaching the percussion students as part of a larger group which includes wind instrumentalists. Thus three areas of discussion will be addressed in this chapter: (1) the development of a conceptual foundation upon which to build a percussion curriculum for the band class, (2) the development of a structured system of instruction for teaching percussion skills, and (3) the development of strategies to address the delivery of such instruction in the context of the band class.

### 4.3.1 Conceptual Structure

Clearly one of the greatest challenges for teaching the contemporary student of percussion is the increasing number and variety of instruments in the percussion section. This demands that instructional materials must contain a great deal of information. It is necessary, therefore, to consider the *structure* of instructional materials as a means to helping students make sense of all this information.

The structural system described in section 4.2.1, referred to as a *schema* by Slavin (1984), will be helpful in developing such instructional materials. The schema model points to the importance of creating a framework with which to connect the teaching of all the instruments. This framework of connected facts and concepts will help percussion students organize the large amount of information they will need to learn.

Such a framework may be found in Reigeluth and Stein's elaboration theory (Reigeluth, 1983, p. 343). Their concept of the *epitome* may serve as a model for developing a conceptual framework for teaching percussion. It suggests that we develop band class percussion instruction from its most fundamental concept. This most fundamental concept will then serve as a conceptual foundation upon which to build a curriculum for band class percussion instruction.

The significance of such an approach is that it diverges from more traditional thought. Instruction in the playing of the percussion instruments has often concentrated on what is *different* about playing each instrument. Little or no connection is made between the playing procedures on one percussion instrument and those of another. Knowledge is measured by the number of technical *recipes* a student can remember. This results in an ambiguous collection of unrelated ideas about correct percussion technique. Because there is no conceptual framework connecting the performance on all percussion instruments students may become confused about which is the correct way to play each instrument.

An approach based on the formulation of a conceptual foundation for instruction would concentrate on what is *common* in the playing of all the percussion instruments. By focussing on *similarities* rather than differences, a *consistent* approach to teaching the playing of the percussion instruments could be developed. This approach would be built on the most fundamental ideas about how every percussion instrument may be played. This in turn would lead to an understanding about technique which is consistent for each percussion instrument.

The most fundamental idea connecting all percussion instruments is the *means by which they produce musical sounds*. This method of sound production is, of course, what sets the percussion instruments apart from other classifications of musical instruments. Thus the conceptual foundation for instruction on the percussion instruments will be developed from an understanding of the nature of how sound is produced on these instruments.

Instruction will be developed from this conceptual foundation by highlighting the *similarities* of sound production on each of the percussion instrument. Instruction on each percussion instrument would lead to a clearer understanding of this fundamental concept which in turn would facilitate the introduction of each new instrument. In this way the techniques for playing percussion instruments would not be a random collection of independent ideas but an ever-expanding set of understandings derived from the single idea about how these instruments are alike.

Thus teaching is more efficient because instruction time is spent *building* concepts one step at a time rather than explaining new concepts each time another percussion instrument is introduced. Similarly, teaching is also more effective because the study of one percussion instrument develops a deeper understanding of all percussion instruments. Thus instruction which is focussed on developing the students' expanding

understanding of the basic concept of sound production will help clarify their conceptual understanding and facilitate greater technical development.

This conceptual structure has significant implications for general band class instruction as well.  Just as the percussion instruments may appear unrelated when approached from the standpoint of how they are different, so too the varied instruments present in a band class seem to have little in common when we emphasize their differences.  However, all musical instruments do have something in common; they all rely on generating full vibrations to create full sounds.  The more successful a student is at generating full vibrations, the more pleasing the tone quality from the instrument.  Thus the epitome for the course *Instrumental Performance* can be formulated as *the generation of full vibrations* and used as a connecting agent for instruction on all instruments.

### 4.3.2 Skills Development

The number and variety of instruments required in contemporary music for winds and percussion has also made significant demands on the *technical* and *organizational* skills of the percussionist.  In addition, the more innovative uses of these instruments by contemporary composers has demanded greater *musical* skills of the percussionist.  Instructional materials for teaching percussion students must therefore include tasks which target the development of each of these three types of skills.

Several aspects of educational thought must be considered when designing instructional materials for teaching skills.

*sub-skills*

It might be argued that the playing of percussion instruments constitutes a similar activity to walking, discussed in section 4.2, in which many motor skills must be coordinated.  These were referred to as sub-

skills. The many skills involved in playing the percussion instruments must also be segmented into less complex sub-skills which may, as suggested above, be organized into successively higher levels of integration and automation. Certainly mature percussionists can be recognized by their level of "automation" and "integration" of these sub-skills.

This level of automation is of particular importance in a musical activity because it is the *making of music* that must remain the focus of attention. The skills must be so well established that they may become secondary to the attainment of the greater goal, which is making music. Just as the point of walking is not so much to *walk* as to *get somewhere*, the point of developing performing skills is not so much to *become skillful* as it is to *create music*. Technique simply builds the tools that are necessary for expressing one's creativity through music.

Thus instruction would be most helpful if it contained skill development exercises which segment all skills into their most basic sub-skills and introduced them methodically so that each individual step leads progressively to the development of the required skills. The responsibility for identifying all sub-skills that should be present lies with the developers of the instructional materials for band class. Teachers should be able to rely on the teaching materials to present all necessary prerequisites and skill development steps. The task of the teacher should be to ensure that students successfully complete each step of the skill development process.

Such materials would provide students with small amounts of new information each day. By focussing on one aspect of each skill at a time, teachers will be better equipped to determine the level of achievement for each student on a daily basis. This will ensure more consistent growth for the student and more discriminating guidance by the teacher.

*sequence*

The sequencing of these skills and sub-skills is equally important.

Certainly it would not be generally argued that the sequencing strategies described in 4.2 (such as familiar to unfamiliar, simple to complex, easy to difficult) would be desirable not only for concept development but for skills development as well. Such strategies should logically be present in any sequence of skill development exercises.

Two further strategies should be considered as well. First, it would seem prudent to concentrate on the development of each hand in isolation to begin with. This adheres to the suggestions earlier in this chapter that it is best to introduce one thing at a time. By targeting the development of each hand individually, students may focus on only one hand before attempting to use both in combination. Moyer (1992) suggests the proper sequence should be to engage each hand "separately, then in unison, and finally, independently" (p. 1). Each level in this sequence involves a more complex process starting by focussing on only one hand so that students must *think* about only one task in one hand, then executing identical tasks with both hands so that students must *think* about one task in two hands, and finally executing a different task in each hand so that students must *think* about two tasks, each executed with a different hand.

As second sequencing consideration for skills development in percussion is to begin with tasks that are physically easier to accomplish. These may be tasks that involve less manipulation of the percussion instruments or mallets. Tasks involving greater manipulation, of course, demand greater control. Such control can only be developed over time. Physically easier sequencing may also mean starting with tasks which involve larger motions. Students seem to be more comfortable making large physical gestures, while executing the same task with smaller gestures seems to require more practice. Sequencing from large gestures to small gestures will help students gradually and confidently develop these skills.

*practice*

Instructional materials must of course provide opportunities to practice the skills which are introduced. What may not seem so evident are the implications for structuring instructional materials for band class percussion instruction. There are at least two considerations which must be addressed.

Firstly, unlike other instrumentalists in the band class, percussion students will likely not have opportunities to practice at home on all the instruments they are introduced to in class. Many of the instruments used in the band class are very large and very expensive, such as timpani and bass drum, making it quite impossible for students to obtain their own for home practising. While it may be possible for students to have regular practice time at school, they will likely not be able to invest the same time on these instruments as wind instrument counterparts. Thus it is necessary to assume that practice on these instruments may well be confined to the time available in class. Instructional materials must therefore be structured to allow for learning to take place in class. Exercises must be gradual enough to ensure that the amount of time available in class is sufficient to allow successful completion of each stage of development. In addition it is even more important that all sub-skills be present in the practice material so that no skill acquisition out of school time is assumed to take place.

Secondly, the use of constructively segmented and sequenced sub-skills allows students to practice for specific outcomes. Such segmented materials help teachers and students identify what specifically is to be gained by practising. Knowledge of *what is expected to result* will help students focus their practice time and use it more constructively. Practice then becomes meaningful because they can see improvements of small tasks.

*feedback*

In a band class extrinsic feedback is primarily the responsibility of the teacher. The teacher will guide the students' development by recognizing accomplishments and suggesting areas for improvement. However, the design of instructional materials can be fundamental in determining the degree to which teachers find opportunities to provide adequate feedback to the student. Materials which present tasks too complex for a student's level of achievement, or include too many new skills at once, make it more difficult for teachers to identify and articulate what specific aspects of the task were performed correctly and which require attention and improvement. It is necessary, therefore, to ensure that instructional materials are constructed in accordance with the strategies regarding sub-skills and sequencing discussed above in order to reduce the complexity of each new task. Instructional materials that target the development of specific skills in small increments would enable the teacher to more confidently make decisions about the correctness of the execution of that skill.

The same care and attention to instructional design will also have a beneficial effect on the quality of intrinsic feedback. Tasks which present only one new skill or sub-skill at a time help students recognize the expectations for that task. Students who know what, specifically, is expected of them will be better equipped to make decisions about their own level of success.

## 4.3.3 Mixed Instrument Instruction

Perhaps the most significant challenge in teaching percussion in the band class is to find ways of integrating the instruction for the percussion instruments with the instruction for the wind instruments. This problem is due to the fact that the percussion instruments are so fundamentally different from the wind instruments. Playing the percussion instruments

involves different technical and mechanical skills than those required for playing the wind instruments. Because such differences exist, it is necessary for instructional materials to contain teaching strategies which target the specific technical and mechanical requirements for each instrument.

Yet in the band class the percussion instruments can not be taught in isolation from the wind instruments. Therefore the strategies for technical development on both the wind and percussion instruments must be merged into a integrated system of instruction which teaches all instruments concurrently. Thus the instructional materials for the band class must be designed to provide a synthesis of strategies for both the wind instruments and the percussion instruments.

This synthesis of strategies is important for ensuring consistent technical growth for all students. However, technique should not constitute the basis for band class instruction. While good technique is indeed very important in the development of young instrumentalists, technique alone should not be the goal of instrumental instruction.

Band class instruction must rather be developed from the understanding that all instrumentalists are first and foremost musicians. Musical concepts and skills must be the basis from which all instruction is derived. Technique should be taught as a means to achieving musical goals. Thus the goal of instrumental instruction should be the development of the *musician*.

Consequently, the focus of *instructional materials* should be to target the training of musicians. Musical concepts and skills are relevant for all instrumentalists and may therefore be introduced to the entire band class together. These musical concepts and skills can then be applied to specific instruments. As students see the concepts applied to each instrument, their understanding of the concepts becomes clearer.

This approach to band class instruction is again based on the

concepts such as Reigeluth's *epitome* and Slavin's *schema* which proceed from the general to the specific. This helps identify common concepts and understandings upon which further instruction for all instruments can be developed. The application of these concepts to specific wind and percussion instruments is akin to Slavin's (1984) use of examples that *differ* to help clarify the concept (p. 246).

# Chapter 5

CONCEPTUAL FOUNDATIONS

It was proposed in chapter four that the development of percussion instructional materials would best be approached from the premise that all percussion instruments are similar in some way. This common link would serve as the foundation from which all technical instruction for percussion would be developed. The model for such an approach was described as the *epitome*; the most fundamental idea in the study of percussion. This chapter will discuss how this fundamental idea may be used as the foundation for building a percussion curriculum.

All sound is produced by a vibrating source. This is the basis for all musical instrument design. Every musical instrument produces sound by means of some kind of vibration generating mechanism. In the case of the percussion instruments, this mechanism is a collision. The collision sets the instrument in motion, initiating vibration, thus producing a sound. It follows that the *quality* of sound produced on a percussion instrument is determined by the *manner* in which it vibrates. Discerning what part of the instrument vibrates and in what manner, can be helpful in identifying factors that will influence the quality of the sound produced. Therefore, an understanding of the basic concept of tone production on the percussion instruments must be derived from an understanding of how the instrument vibrates.

Some percussion instruments posses vibrational characteristics that are easily observed. Watching the motion of the vibrating surface will

quickly reveal that the production of sound is indeed dependent upon the existence of vibrational motion in the instrument. Moreover, changes in the vibrational motion have a direct effect on the sound produced. Hence, when the vibration is impeded the sound will diminish; when the vibration is stopped the sound will stop. This understanding of impeded and unimpeded vibration will help form the basis for developing a concept of how to play the percussion instruments.

## 5.1 Free Vibration and the Full Tone

The bass drum is an excellent instrument to use for demonstrating the concept of impeded and unimpeded vibration because its size and pitch result in a slow, visually observable vibration. The sound on a bass drum is produced by the vibration of a *membrane* stretched across each open end of a large cylindrical shell. The most noticeable vibrational motion will be observed near the centre of the membrane. If set into motion and left to vibrate freely, the vibration of the membrane may be observed to have a large amplitude that sustains for several seconds. If a cloth is held against the membrane when it is set into motion, the amplitude and duration of vibration are noticeably reduced. If sufficient surface area of the membrane is contacted while it is vibrating, the vibration will stop completely.

The same principle may be observed when playing the cymbal. In this case it is the *entire body* of the instrument that vibrates when set into motion, with the most noticeable vibration at the edge of the cymbal. If set into motion and left undisturbed, vibration at the cymbal's edge is readily noticeable. Any interference with this vibration will impede its motion and reduce the amount of sound that is produced.

Further observation would soon reveal that all percussion instruments vibrate most fully when *unrestricted*. Thus unrestricted vibration will produce the *fullest* sound on the instrument; the sound which

is considered to be the most characteristic for that instrument. This *free vibration* of the instrument produces what will be referred to as the *full tone*. It is the production of this full tone which must form the foundation for instruction on the percussion instruments.

### 5.1.1 Natural Motions

Development of the concepts of free vibration and the production of the full tone must stem from an understanding of how things move and interact in nature. This understanding of how objects interact in the natural world is the catalyst for developing strategies for teaching percussion based on the premise that natural body motions offer the best chance of achieving the most resonant tone.

Beginning percussionists have often been instructed to *hit* the instruments to make a sound. While it may appear that this accurately summarizes the percussionist's task, the instruction to *hit* the instruments is particularly detrimental to the development of good concepts of tone production. Such instruction is ambiguous and reveals little information about the nature of producing musical sounds on the percussion instruments. Young percussionists are left with the false impression that little understanding is required to play the percussion instruments.

What distinguishes the *percussionist* from one who merely *hits the drum* is the understanding that the nature and quality of the sounds produced on the percussion instruments is not simply an accident but rather a consequence of deliberate actions known to result in predictable outcomes. The percussionist knows that the act of *causing* the collision between the stick and the drum is not as important as *how* they collide. In the seasoned percussionist, this may take the form of *tacit knowledge*, not so much a conscious understanding, as an unconscious (physical) awareness of body movements that result in predictable sounds. The objective of instruction in percussion should be to help student

percussionists develop such understandings about the nature of *musical* collisions.

Consider the example of a large, heavy object falling toward a trampoline. We can safely predict that the object will break the plane of the trampoline surface as it falls, stretching the mat toward the ground. At some point the trampoline mat will no longer stretch. Consequently, the object will stop its downward motion and will be thrown upward as the trampoline surface returns to its initial horizontal plane. We can also predict that the object will be propelled upward with a force that is proportional to the force with which it struck the surface of the trampoline as it travelled downward.

This example is one of many common experiences that reflect some simple laws of motion that give us all a common understanding of how objects in our world interact. What we all instinctively understand is that when two such objects collide, one is propelled away from the other.

Using this common understanding of our physical world, it is possible to come to some conclusions about the predictability of what happens when a striking implement collides with a percussion instrument. It is clear that in such a collision the striking implement will set the vibrating surface of the percussion instrument into motion, much the same as when the falling object causes the trampoline surface to move.

The vibration of the instrument will result regardless of how contact is made. However, if the striking implement is allowed to move freely, the force of its movement will stretch the vibrating surface as the two make contact. Just as the falling object is thrust upward by the trampoline in the illustration above, the vibrating surface of the instrument will spring back toward its initial position causing the striking implement to rebound *naturally*. The movement of the striking implement away for the instrument occurs in response to the free movement of the vibrating surface resulting in negligible restriction of the vibrations. No additional

force is required to draw the striking implement away from the vibrating surface. In fact, any attempt to alter the *natural movement* of the striking implement may have a modifying effect on the vibrations of the instrument.

Teaching strategies should therefore avoid references to "making the stick do something" but rather focus on *allowing* the implement to respond naturally to the movement of the vibrating instrument. Students must become aware of the *interaction* that occurs when playing a percussion instrument. Instructions that neglect to address this concept may be counter-productive. The instruction to 'hit', for instance, implies only an action, not an interaction, thus hindering a full understanding of free vibration and the full tone.

## 5.1.2 Producing the Full Tone

One of the most critical moments in the production of the full tone is in the very act of striking the instrument. It is at this moment, when the striking implement makes contact with the vibrating surface, that the free vibration of the instrument is subject to forces which may impede its motion. If force is exerted upon the striking implement toward the instrument at, or following, the point of contact, it is the striking implement itself which may impede the vibrations of the instrument. The excess force may cause multiple contact between the instrument and striking implement or, if taken to the extreme, will cause the striking implement to remain pressed against the instrument. Such subsequent contact will alter the instrument's pattern of vibration and interfere with the production of a full tone.

Thus the *manner* in which the striking implement contacts the vibrating surface will determine whether unimpeded vibration is achieved. To develop unimpeded vibration, students must learn to be sensitive to the movement of the implement and allow it to move unrestricted, making unrestricted contact with the instrument, and rebounding freely away from

the vibrating surface.

Free movement of the striking implement should begin prior to its contact with the instrument. If one conceives of the action as simply allowing nature to take its course, it is clear that the law of motion which governs such a collision is gravity. When released from any height, solid objects will fall toward the ground accelerating to their maximum speed at the point of contact. Consider again the object falling toward the trampoline. Gravity causes the object to fall past the point of making contact with the surface, stretching it to the point where it stops, and propels the object back up against the force of gravity.

Similarly, all that is required to cause the striking implement to make contact with the instrument is to allow the striking implement to fall toward it, allowing the weight of the implement to cause the collision. Instruments that have a horizontal vibrating surface (e.g. snare drum) will be activated by a vertical fall from the striking implement. Instruments with vertical vibrating surfaces (e.g. bass drum) will be activated from a pendulum-like falling motion of the striking implement. The acceleration of the falling implement will generate sufficient momentum to cause the collision with the instrument. Because no additional force is necessary to cause the collision, students are free to feel the natural movement of the implement as it is propelled toward the instrument, thereby enhancing the possibility of unrestricted rebound.

The process described above may be recognized as a simple *bounce*. When allowed to fall naturally, the striking implement will tend to bounce off of the instrument. Each instrument will generate varying *degrees* of rebound because the various types of vibrating surfaces of each instrument will respond differently when set into motion. However, for every instrument some bounce is present. Thus a conclusion may be drawn here. *A full tone on the percussion instruments may be achieved by allowing the striking implement to fall unrestricted toward the vibrating*

*surface, rebounding freely upon contact*. The object of instruction on the percussion instruments should be to help students develop an awareness of, and sensitivity to this bounce.

Teaching strategies should therefore focus on guiding the student to an understanding of the bounce; how it *looks*, how it *feels*, and how it *sounds*. The emphasis should be to allow *natural motions* and natural forces to work unimpeded. Students should learn the importance of moving *with* the instrument, *guiding* the natural motions of the instruments and beaters rather than *forcing* a collision between them.

Thus instructional materials would be better constructed with language that offered the instruction to *"let* it bounce" rather than the instruction to *"make* it bounce". By removing the obligation on students to *make* the collision, they are free to observe and respond to collisions as they happen. This provides a better learning experience for students. Observation of the collision helps students think more critically about how the objects interact and thus fosters a better understanding about the nature of the free rebound.

### 5.1.3 Dynamics

This principle may be taken one step further in describing the volume of sound that will be produced by such a collision. Consider once more the illustration of the trampoline. Falling from a short distance will result in minimal movement in the trampoline mat, but falling a greater distance will result in more movement in the trampoline mat. Generally speaking, the higher the point from which the object falls the greater the distance the mat must travel before returning to its horizontal plane.

The same principle is true for the percussion instruments. The distance from which the striking implement falls toward the instrument determines how much movement it will generate in the vibrating surface, which in turn determines the amount of sound that is generated. Short

falls produce sounds of lower volume, more substantial falls produce louder sounds.

It is of course possible to produce louder sounds by exerting additional force on the striking implement as it moves toward the vibrating surface. This, however presents several problems for the student, particularly in the beginning stages of development. The change in technique that results from forcing the implement toward the instrument requires a new conceptual approach to the motion for producing the sound. This change in concept means that the student must be continually modifying the stroking motion, adding and reducing muscle tension, as the dynamics change.

Thus a second problem arises; that of inconsistency in sound. When muscle tension is no longer constant and the consistent force of gravity is no longer the determining factor in the force of the impact, the likelihood of consistency in *volume* from one hand to the other (or from one stroke to another) is greatly reduced. Moreover, because additional force is being applied to the stroke, the student becomes less sensitive to the response of the striking implement, resulting in inconsistent collisions and thus inconsistent *tone production*.

Conversely, *dropping* objects from a consistent height tends to produce consistent results because the force of gravity always acts upon the object in a predictable way. Teaching dynamic control as an outcome of the distance the striking implement must fall allows students to maintain a consistent technique no matter what volume they wish to play. The concept of allowing the implement to fall toward the instrument and rebound naturally is retained at all dynamic levels; the motion remains the same, only the degree of motion varies. Thus it is possible to teach students how to play at different dynamic levels and still maintain the principle of natural motions.

In guiding the student to an understanding of this concept the

teacher must be conscious of the language employed and its impact on the student's perception of the motion. It is tempting indeed, when trying to get students to play at a louder dynamic, to simply state, "hit it harder." This choice of words, however, may instinctively induce tension in the students' muscles, distracting their attention from the concept of a higher bounce. Therefore teachers should avoid the temptation to say 'hit it harder' and choose instead, language that aids the perception of a relaxed, natural falling motion. Phrases such as 'drop it from a higher height', 'lift it higher' or 'let it fall farther' would enable students to focus on how to play louder while maintaining a consistent, natural technique.

### 5.1.4 Angle of Impact

It may be reasoned at this point that the *fullest tone* is produced when the collision results in *maximum bounce* of the striking implement since this is what occurs when the vibrating surface is in maximum motion. While this bounce is a natural response when the striking implement collides with the vibrating surface, factors related to the position and motion of the striking implement prior to contacting the instrument may tend to reduce the amount of bounce obtained, even if the collision itself is unimpeded. The collision must be prepared in such a way that the results achieved are those anticipated.

Perhaps the most significant factor in ensuring maximum bounce is the angle at which the striking implement approaches the instrument, or the *angle of impact* as it will be referred to here. In order for the vibrating surface to absorb the entire momentum of the striking implement, it is important for the collision to be 'head-on'. Preparing the collision to ensure 'head-on' contact will result in the most interaction between the striking implement and the vibrating surface, therefore resulting in the most response of the striking implement (or greatest bounce), and consequently the fullest tone.

Two conditions must be kept in mind when preparing this collision. First, a 'head-on' collision will require that the striking implement in motion will follow a path that forms a plane perpendicular to the playing surface. This perpendicular path may be observed when facing a mirror, watching the striking implement as it travels to and from the vibrating surface. A perpendicular path of motion will allow the striking implement to rebound along the same path as its approach. This means that the vibrating surface must absorb the entire momentum of the striking implement, then propel it back in the opposite direction. When the path is not perpendicular, the striking implement will glance off the vibrating surface. The full momentum of the striking implement will not be directed toward the vibrating surface, thus diminishing the impact of the collision.

Path of motion

Vibrating surface
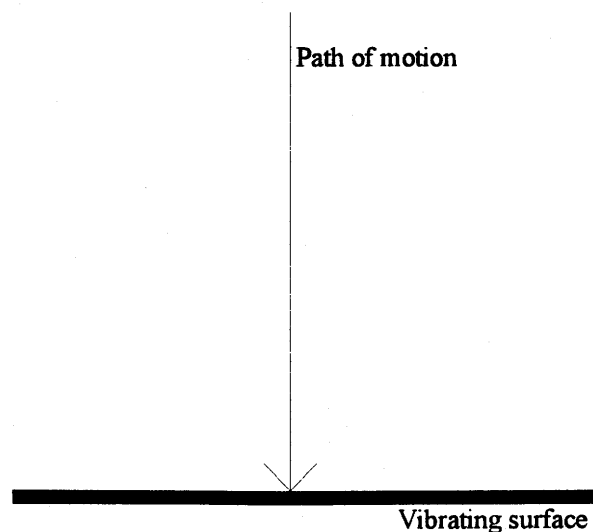
Figure 5.1 Perpendicular Angle of Impact - Front View

Secondly, to ensure a 'head-on' collision the angle of the striking implement must be virtually parallel with the playing surface at the point of contact. This will allow the motion observed in the tip of the striking

implement to form an arc along its perpendicular plane which contacts the playing surface at a 90° angle. The angle of impact will thus remain perpendicular and the tip of striking implement will rebound along the same path of motion because the hand anchors the other end. Thus the entire momentum of the striking implement is directed toward the vibrating surface.

Arc of motion

Stick

Vibrating surface
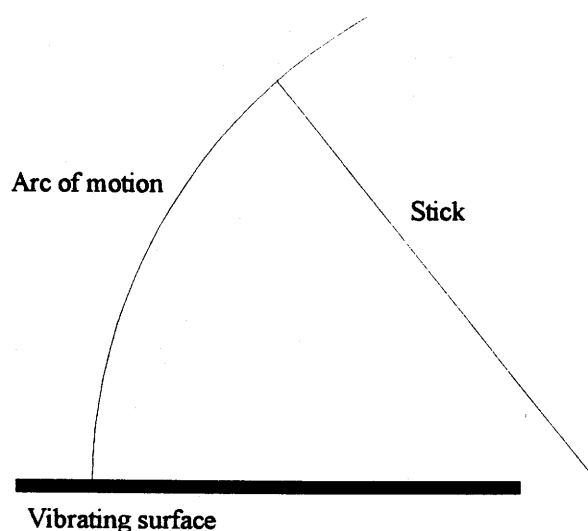
Figure 5.2 Perpendicular Angle of Impact - Side View

## 5.2 Manipulating Tone Production

The full tone should be the focus of all instruction on the percussion instruments. There are many factors, however, which influence the quality of the sound produced. Percussionists make frequent use of this variety of tonal possibilities to create the musical character that each passage demands. As percussion students mature, they should be encouraged to explore the tonal modifications that can be effected through the

employment of various techniques and conditions.

The three factors that will most greatly affect tone production are the point of contact on the vibrating surface, the type of stroke, and the characteristics of the striking implement. In simple terms we may say that tone production on any percussion instrument is influenced by *where you hit it, how you hit it, and what you hit it with*. In order for students to gain full control of the sound of their instrument and make good decisions regarding the playing of their instrument, they must not simply be told where, how and with what they should strike the instrument. They must understand how these factors will affect the sounds they produce.

### 5.2.1 Points of Contact

Striking the instrument at several different points will soon reveal that many sounds can be produced on the same instrument. In fact, virtually every point of contact will produce a different tone. This is because every point of contact produces different movement in the vibrating surface. Consider for instance the trampoline. In the previous illustrations it may have been assumed by the reader that the object falling toward the trampoline was landing in the middle of the mat. This is a natural assumption since this is the most commonly used area. But what if the object were falling near the edge of the mat? We would notice, of course, that most of the movement of the mat is near the edge, at the point where the object made contact. We might also notice that the nature of the movement of the mat is different than when the object falls in the centre of the mat.

In the same way, the vibrating surface of a percussion instrument will vibrate in characteristically different ways when struck at different points. Consequently, changing the point at which the instrument is struck will change the quality of the sound produced. For each percussion instrument there is an optimum point of contact, where the fullest sound

for that instrument is produced. This is the point considered to be the best spot for most playing. Other points of contact are useful as well but only in a subsidiary role, as modifications of the basic tone of the instrument.

In this way great tonal variety can be achieved by making modifications to the placement of the stroke. While this opens up many musical opportunities for the skilled performer, it presents a significant challenge to young percussionists because considerable precision in the placement of each stroke is necessary to maintain a consistent tone. Haphazard striking of the instrument will result only in an uneven sound and indistinct tonal quality. Early development should therefore focus on consistent placement of the stroke, striving for optimum contact point and fullest tone on every attempt. Once students have attained sufficient skill to play with consistent tonal quality, they may confidently explore other tonal possibilities on the instrument.

### 5.2.2 Modifications to the Grip

Manipulation of the grip and stroke can greatly affect tone. Modifications to the firmness of the grip and weight of the stroke may be quite useful in creating new tonal possibilities.

It was established above that one factor in a producing a full tone is to allow free movement of the striking implement. This free movement is possible when using a relaxed, natural grip. Tonal variety may be achieved, however, by gripping it more rigidly, restricting some of its natural response to the movement of the vibrating surface. The outcome of this modification is to gain a slightly longer surface contact than would normally happen if allowed to rebound naturally.

This stiffer grip produces a sound with a harsh impact, as the striking implement makes contact with the instrument. Yet there is less sustain because the striker restricts subsequent movement of the vibrating surface. This technique is often found useful at a more advanced level for

producing a staccato-like sound because the aural impression is more articulate in nature. Taken to the extreme, however, the striker may remain pressed against the surface allowing no rebound whatsoever. Such collisions are normally referred to as *dead strokes*.

### 5.2.3 Modifications to the Stroke

The full tone relies on the full weight of the striking implement impacting with the vibrating surface. This is accomplished by simply allowing the striking implement to fall naturally toward the instrument. This is the most natural stroke and has therefore been the focus of the discussion thus far.

One modification to this natural stroke is to prevent the striking implement from falling with its full weight onto the instrument. In this case the stroke may not allow sufficient motion of the striking implement toward the instrument to cause full vibration. Consider for instance what might happen if the object falling toward the trampoline were suspended from a cord that allowed it to fall only to the point where it touched the surface of the trampoline. Obviously the movement of the mat would be minimal. Similarly if students prevent the implement from completing its motion toward the instrument, pulling it away prematurely, the surface of the instrument will not vibrate to its maximum degree. The resulting sound is thinner in nature because the vibrating surface is not fully activated.

While manipulation of grip and stroke can be useful for creating more musical interpretations of the music, they are in the end *manipulations* of the full tone. If we follow the guidelines established in chapter four, then before these manipulations of the full tone are attempted, production of the full tone must first be mastered.

### 5.2.4 Characteristics of the Striking Implement

Finally the striker itself can have great influence over tone production. The size, weight and construction of the striking implement each contribute to the resulting tone quality produced on the instrument (Cook, 1988, p.13). Often students will be confused about what type of beater they should be using. This could be due in part to the fact that they are unsure about what kind of sound they wish to produce, or it may also be that they do not understand what kind of sound will result from each type of beater. Again, the decision making in these situations is often left to the teacher, with the student learning little more than how to follow orders. Effective and efficient teaching, however, will direct students to an understanding of these concepts so that they may begin to make these decisions on their own.

Construction of the striker (what it is made of) has great influence over the sound that is produced at the moment of contact, or 'attack'. The amount of absorbing material, and the degree to which it absorbs the impact of the collision, will determine how long the striker remains on the vibrating surface. If lots of soft absorbing material is present much of the impact of the collision will be absorbed by the striker resulting in less sound at initial contact. If the striker is solid, with no absorbing material, it will initiate more immediate motion in the vibrating surface, causing more sound at the moment of impact. Therefore harder strikers produce more initial contact sound and softer strikers produce sounds with less attack.

The size of the striker seems to affect primarily the overtones that are present. Small strikers seem to activate more overtones than larger strikers. By coincidence very hard strikers also seem to produce more overtones. Not surprisingly, hard beaters also tend to be small beaters.

Finally the weight of the striker will determine how full the sound is perceived to be. Consider again the trampoline. A heavy object was used in each illustration above because it would have an appropriate amount of

mass to cause considerable movement in the trampoline mat. A small, light object, on the other hand, would cause relatively little movement in the mat because there is not enough weight to generate the same amount of movement.

Generally heavy objects are more easily moved when struck by another heavy object. Similarly large percussion instruments with bigger, heavier vibrating surfaces require heavier strikers to fully activate the vibrations. On the other hand, small percussion instruments can easily be overpowered by a striker that is too heavy, resulting in little or no natural rebound.

### 5.2.5 Summary

The purpose of this discussion was to generate a conceptual foundation for the teaching of percussion instruments which would be used to build a system of instruction. The focus of the discussion centred on the achievement of the full tone as means to creating a consistent system of instruction for all percussion instruments. The production of the full tone was thus established as the *epitome*, or most fundamental idea, for instruction on all percussion instruments.

The concept of free vibration of the instrument was identified as the one factor that would achieve the production of the full tone. This free vibration is achieved through the generation of an impeded collision between the striking implement and the instrument. Thus all factors pertaining to the playing of percussion instruments must be considered within the context of how they aid or hinder the achievement of an unimpeded collision.

The degree of bounce was described as the indicator of success of the collision. Factors which would aid maximum bounce are those that produce a perpendicular angle of impact at the point of maximum vibration on the instrument.

Once the production of the full tone was established, factors which could be enlisted to manipulate the quality of the tone produced were considered. These factors include (1) modifications to the point of contact, (2) modifications to the grip, (3) modifications to the stroking action and (4) characteristics of the striking implement itself.

## 5.3  Some Applications

The application of this conceptual foundation to specific teaching strategies requires some explanation. The approach developed to this point suggests that instruction on all percussion instruments should be consistent. Methods of describing motions and collisions on one instrument should be similar in concept to those for all other instruments. The instruments used for illustration here represent three main areas of study in percussion; snare drum, timpani, and keyboard percussion.

There are many methods of teaching percussion that rely on a number of 'rules of thumb' (generalizations) to teach the student how to play. While these generalizations may get students started rather quickly, they do not explain the purpose of the instruction and therefore do not always result in a good understanding of the skills and concepts being studied. When students lack a clear understanding of the purpose for playing a certain way they may begin to acquire bad habits without realizing it. In this situation the student is entirely dependent on the teacher for making decisions about the degree of correctness of his technique, because they do not fully understand what the correct technique is.

A more effective method of instruction would have the teacher help the student understand the *principles* of playing so that the student can determine what actions are appropriate to correct their technique. This is only possible when a clear conceptual foundation for the playing of the instruments has been established. If the playing of all instruments is similar

conceptually, the student is able to apply principles learned on one instrument to new instruments that are introduced. This allows the student to become involved in the decisions made about the correctness of their technique, thus sharing the responsibility with the teacher for their development.

Thus with the concept of free vibration as a foundation for teaching percussion, students should be engaged in the observation and examination of what physical outcomes can be predicted when the instrument is struck. More specifically, it is important for students to become aware of how objects collide, what causes such a collision, and what factors influence the nature of the collision. Such observation and examination will help students formulate more accurate understandings of the principles for playing the instruments.

In this way teaching is no longer based on generalizations, but on observable, predictable fact based on the experience of the student. Rather than relying on general instructions, instruction can be quite specific, indicating exactly what the purpose of the teachers directions are. These specifics are not of the type involving numerous rules about what position in which to hold the hand. Rather they are specifics regarding how to achieve the kind of collisions that result in free vibration.

Another advantage of this kind of instruction is that is accommodates for students with various sizes and shapes of bodies. Technical descriptions that may work for one person will not necessarily work for another, thus the reality of a *correct* technique is called into question.

In his book, *Teaching Percussion*, Gary Cook (1988) speaks about an *area* of correctness in technique (p. 49). This is a useful suggestion because it allows for variations in body size, proportions and joints. Such variations mean that proper execution of a free collision may look different from one student to the next. However, regardless of whether the

technique for all students *looks* the same or not, if the body movements all work to assist a free collision then they may be deemed to be correct. It would be helpful to suggest further, that this area of correctness in technique may only be achieved when a correct concept of the successful collision is formulated.

Teaching strategies in this model of instruction will help students learn to initiate body movements which promote successful collisions. The two factors which will most determine the success of the collision will be (1) how the striking implement is held and (2) the motion of the striking mechanism (fingers, hands, wrists, arms and shoulders). All instructions describing the modification of these factors will be based not on how it *looks*, but on how it aids or hinders the successful collision.

Taking the principle of the bounce, then, and its importance in achieving the fullest sound on the instrument, all decisions about how to play the instrument must be determined by the effect it will have on the resultant bounce.

Many percussion teachers would support these observations. François Dupin, for instance, has made similar observations on sound production technique (Dupin, 1995, pp. 53-58). The significance of engaging in the discussion here is that it promotes a system of instruction based on a well formulated conceptual foundation. It is within the context of such a pedagogical structure that these strategies will offer the most benefit to future scholars.

### 5.3.1 Instrument Height

#### Snare Drum

One potentially distracting generalization often employed is to set up the drum at approximately waist height. While this may put the instrument at an almost acceptable height, the fact remains that the waist has nothing to do with playing the snare drum and therefore the instruction serves little

to aid the student's understanding of why the drum should be at a particular height. Furthermore if the waist is used as a reference point for drum height, playing position for each person will be different since each person has different body proportions. Indeed the male and female body differ to the extent that the drum positioned at waist height for a female will feel much higher than for a male since the waist is proportionally higher on females than on males. Therefore, to give instruction that aids understanding and emphasizes conceptual consistency, another teaching strategy should be employed.

It is of course the hands, arms and shoulders that are most involved in the playing of the snare drum so it is in reference to these that a decision should be made about how high the drum should be. The playing position which allows for the most flexibility of motion is when the shoulders and upper arms hang relaxed by the sides of the body and the forearms are parallel with the floor.[13] The height of the bead of the stick held in this relaxed position must serve as the reference point for positioning the drum.

Since it is the narrower tip of the stick and not the shaft that is to make contact with the drum head, and since most drums have a rim that rises above the drum head, the drum should be placed with the head several inches below the bead of the stick, just lower enough to avoid the shaft of the stick striking the rim of the drum. This will ensure that the angle of impact is virtually perpendicular to the head of the drum, allowing for maximum rebound.

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[13]Some teachers suggest a slight downward angle is acceptable as long as it is not extreme (Cook, 1988, p. 52) but experience suggests that the horizontal position allows for more ease of movement of the elbow and upper arm.

## Timpani

Unlike snare drum, it is not possible to adjust the height of the timpani to accommodate the height of every student. It is still important, however, to set up the collision between the mallet head and the timpani head so that the angle of impact is perpendicular to the plane of the head of the timpani. To accomplish this the wrists must be positioned just above the rim of the drum. For students of average height this will put the arm in a comfortable horizontal position, just as for playing snare drum.

For shorter students the drums may be too high for a comfortable arm placement. Likewise for taller students the drums will be too low for comfortable arm placement. In these situations the student should sit on a stool. A stool with adjustable height is necessary to allow for students of different upper body proportions. A stool of correct height for one student may not necessarily be the correct height for another student. The height of the stool in proportion to the height of the drum is irrelevant because this only determines the height of the student's *seat*, which has nothing to do with playing the instrument. The stool must be set to a height that puts the student's *arms* in the correct position. The height of the stool will vary for each student because the distance between their seat and their arm held horizontally will be different for each student.

## Keyboard Percussion

The arm movement used to play the keyboard percussion instruments is similar to that used for the snare drum. For this reason, it is necessary to assure that the instrument height is determined in the same manner as when determining the height of the snare drum. Establish a comfortable body position with the arms horizontal, as described for snare drum. The height of the *raised* bars should be a few inches beneath the mallets held in this position. Keyboard instruments that have adjustable height should be positioned according to the height of the mallets held in

this manner.

Many keyboard percussion instruments, however, are built with a fixed height which cannot be adjusted. In this case, shorter students should use a platform to stand on that will raise them to the appropriate height. Taller students should use blocks to place under the wheels that will raise the instrument to the appropriate height.

### 5.3.2 Stance and Posture

#### Snare Drum

Since it is near the centre of the drum head where vibration is at its maximum, the drum should be placed so the bead of the stick falls on the centre of the head. Again, some prominent methods suggest specific distances to stand from the drum (Pearson, 1991, p. 32), yet no reason is ever offered for standing so. For the student, the proximity to the drum becomes insignificant because there is no reason to do it. In the end the desired placement of the drum, so the sticks fall at the point of maximum vibration, is lost.

It is important to note here as well that it was not suggested that the sticks be placed in a particular position but rather that the drum is to be placed according to the position of the sticks. If maximum comfort and efficiency of movement are to be achieved, it is imperative that the instrument be set to match the proportions of the body, not the reverse. Instructions that focus on the drum being in an appropriate spot aid the understanding of this principle. Therefore it may be more helpful to instruct students to establish their body posture away from the drum, taking careful note of the height of the stick tips when the arms are positioned in the manner described above. The student may then imagine where the drum should be positioned so that they may place the drum in that spot. By removing the drum from in front of the student in this way, the student's full attention is directed to the positioning of the arms

without the temptation to conform the body positioning to the existing height of the drum.

### Timpani

In contrast to the snare drum, the fullest tone on the timpani is not produced by striking near the centre of the head. Striking the centre of a timpani head produces a particularly non-resonant sound. To obtain the full, resonant sound normally desired, the head must be struck at a point near the rim. Thus the ideal beating spot for each size of drum changes in proportion to the diameter of the drum.

Since the beating spot is near the rim of the drum, it is necessary to stand back from the instrument slightly farther than one would for playing snare drum. Again it is best to give the student information that will allow them to make decisions about correct distance. Have them establish a comfortable stance as described for snare drum, then move to the drum so that the mallet heads fall naturally at the beating spots.

For students who must use a stool, be sure that the position of the stool places the upper body at the same distance from the drum as if they were standing at a comfortable distance. There is a tendency for students to stand at the correct distance and pull the stool up behind them. This means, however, that when they sit down their upper body moves to a position over the stool, somewhat farther from the drum than when they were standing. This means that either the student's arm position or the beating spot is compromised.

### Keyboard Percussion

Proximity to the keyboard percussion instruments should be determined keeping in mind that while playing the snare drum the performer is rather stationary, on the keyboard percussion instruments the performer is required to cover much space. Standing in the comfortable

stance with arms horizontal, the body sound be positioned so that the mallets fall naturally on the ends of the *raised* bars. This positions the mallets in the middle of the playing area and will facilitate efficient movement between the upper and lower keyboard beds.

### 5.3.3 Grip and Stroke

In this model of instruction the grip and stroke for all instruments will be very much the same. The point of the instructions will be to (1) create a pivot point in the grip that allows the striking implement to move freely, (2) ensure the striking implement is held at the point which allows for the most response, (3) initiate motion in the striking implement toward the instrument in a perpendicular plane and (4) ensure that the striking implement is parallel to the instrument upon contact. To promote a better understanding of the principles at work, students should be encouraged to observe how the hand and stick work together to create the stroke.

To obtain the most free movement in the stick, there must be only one point at which the hand grips the stick. This will be the *pivot point* for the stick. While the entire hand may be used to support and control excess movement in the stick, there must be only one point around which the stick may pivot. When too much of the hand is used to grip the stick, the movement of the stick is restricted. The more focussed and precise this pivot point is, the freer the movement of the stick and thus the more responsive the bounce.

To help students establish this pivot point, teaching strategies should employ visual imagery. This visual imagery allows the student to recognize the degree of correctness of the grip and make decisions about how to improve it. Students should imagine a pin pierced through the thumb nail, continuing through the shaft of the stick, and into the index finger between the first two knuckles. This pin establishes an *axle* around which the stick

may pivot. All other parts of the hand provide only a supportive roll to this focus for the grip.

This pivot point must be established at the point along the shaft of the stick which allows the most rebound. Most present teaching strategies suggest that students hold the stick about ⅓ of the way from the back of the stick. Such generalizations, however, are very imprecise and do little to help students understand *why* the stick must be held there. Rather, students should experiment by dropping the stick to the instrument and observing the amount of bounce produced. By changing the position of the pivot point, up and down the shaft of the stick, students will soon recognize the precise point at which the axle must be established. In this way an *exact* location for the axle is established, and students understand that this position was chosen *because* it allows the greatest rebound.

Furthermore, the balance of a timpani stick and xylophone mallet are much different. If students use the ⅓ rule for these striking implements, they will not necessarily obtain the optimum grip location. The principles described above allow for better understanding of where to grip the stick and ensure that instructions on all instruments is consistent.

Establishing a perpendicular plane of motion has not often been discussed in instructional materials for percussion. At best, instructions may use the generalization of *placing the palm down* to establish a correct hand position. However this instruction is, once again, very *imprecise* and does not indicate the *purpose* of correct hand position. Therefore it is of little help in developing a clear understanding of a correct stroke.

A better understanding would be developed by continuing with model of the axle described above. If the axle is horizontal, the stick will pivot in a vertical plane. As the axle rotates from the horizontal, the plane of motion of the stick also rotates from the vertical. Instructions should help students recognize that if they keep the axle parallel to the playing surface, a perpendicular plane of motion will be maintained and the

optimum rebound will result. In words the student may understand, if the pin is horizontal the stick will go straight up and down.

To maintain this vertical motion, a second pivot point must be considered. The wrist is the primary joint involved in the initiation of the stroke. It is the movement of the wrist that directs the stick in its movement to and from the instrument, thus the wrist forms this second pivot point. The movement at this pivot point must also be vertical if the stick is to move in a vertical plane. With the axle at the stick held horizontally, the wrist pivots naturally in a vertical plane. This connection between the two pivot points should be emphasized for the students so that they may understand how they work together to ensure perpendicular motion in the stick.

The parallel position of the stick upon contact is achieved through ensuring that the wrist is positioned to accommodate this. Of course, correct positioning of the instrument is important, as described above, yet this is only done to ensure that the wrist may be positioned comfortably and correctly. This is easily established by simply resting the stick on the instrument and observing the position of the wrist when the stick is parallel to the instrument. By pivoting the stick up and down from this position, students will recognize that the angle of impact of the stick in the instrument is exactly perpendicular. Thus the rebound will be at its optimum with this positioning.

### 5.3.4 Summary

The examples above have demonstrated some applications of the principle of obtaining maximum bounce to achieve the fullest sound. The teaching strategies employed focussed on helping students understand how this fundamental idea can be applied to all instruments. The use of generalizations for the purpose of instruction were rejected as being imprecise and uninformative. More helpful instructions were identified as

those which indicate specifically what the point of the instructions are, so that students may (1) make decisions about how precisely to generate optimum sounds on their instruments and (2) understand the principles which dictate how these decisions are made.  This will train students who not only know how to follow directions, but who can think critically about how to create the sounds they desire.

# Chapter 6

SKILLS DEVELOPMENT

In chapter 4 skills development was highlighted as a key component to the design of effective instructional materials for band class percussion. Three types of skills were recognized as important to the study of the percussion instruments; (1) technical skills, (2) organizational skill, and (3) musical skills. In this chapter each of these types of skills will be discussed separately. It is understood of course that all three skills are interdependent in any performance. However for the purpose of identifying specific teaching strategies it is convenient to deal with each individually.

## 6.1 Technical Skills

> The beginning typist often orients herself toward the avoidance of error by adopting an accurate but inadequate style of typing. Such over concern with errors interferes with effective learning and one of the teacher's primary tasks is keeping the learner's sights on the long-range rather than the immediate but short-sighted goals. (Mouly, 1973, p. 332)

This quote highlights the problems inherent in developing new skills. While the example describes the challenges in learning to type, many of the same challenges face those who wish to develop the skills of playing a musical instrument. Indeed the teacher has a great responsibility to guide the student's development. However, instructional designers have the obligation to assist teachers by providing them with materials that ensure effective and efficient learning.

It is in the teaching of these technical skills that attention to

appropriate sequencing of experiences is perhaps most important. By presenting appropriate experiences at the right time, instructional materials can greatly increase the chances of success for the student. In the following discussion the ideas from chapter four regarding sub-skills, sequencing, practice and feedback will be used to generate strategies for teaching technical skills to percussion students in the band class.

As examples, elementary aspects of snare drum and keyboard percussion technique will be used to model the strategies presented. Snare drum will be discussed first, as it would in the band class instructional materials, because it develops the ability to use the pronounced response of stick to help develop control of the rebound. This may then be used in the study of other percussion instruments.

### 6.1.1 Snare Drum

Instruction on snare drum should begin with the concept of the bounce. In snare drum playing, two types of bounces are utilized; single bounces (those which produce the sound of a single tap from one drop of the stick) and repeating bounces (those that produce the sound of multiple taps from a single drop of the stick). The former is generally used for playing rhythmic patterns, and the latter is generally used for playing musical ornaments and creating the impression of a sustained sound. All snare drum skills are developed from these two techniques. Therefore it is important for these to be developed early and firmly established.

Of these two techniques, it is the repeating bounce that should be introduced first. This strategy diverges from conventional thought which assumes that single bounces must come first. While it may seem that the single bounce is easier to accomplish, careful observation will show that the single bounce is in fact a manipulation of the repeating bounce technique and therefore constitutes a more complex process.

Provided that the stick is held properly, it will bounce when dropped

freely onto the snare drum head and will repeat its bounce several times unless something prevents the subsequent bounces. To achieve a single bounce, these subsequent bounces must be prevented. Because action must be taken to prevent the stick from continuing to bounce, the complexity of the task is greater than that of producing the repeating bounce. Attention must then be given to two seemingly contradictory concepts at the same time; allowing a free bounce *and* preventing further bounces. A first encounter of this kind may tend to impair complete understanding of the nature of the collision, resulting poor technique.

To aid learning it is important, therefore, for the repeating bounce to be the student's first experience with the snare drum. Skills which require a manipulation of this bounce should follow experiences which allow students to become familiar with the feeling of an un-manipulated bounce. Students must be given the opportunity to experience the free movement of the stick and observe the interaction between the stick and the drum head. This will help them gain an understanding of the natural movement of the stick that will be required for learning to manipulate the bounce.

### Multiple Bounces

The introduction of the multiple bounce roll is often delayed because it is considered an advanced technique requiring greater technical ability. Admittedly, the roll is quite complex and demands a great deal of time to develop properly. However, it is exactly *because* of its complexity that preparatory exercises should be introduced early. The technique required to play a roll may be segmented into many sub-skills that may be introduced separately, over a period of time, allowing students to develop confidence at each stage. Introducing the role early in the instruction makes possible the inclusion of all the sub-skills while there is time to develop each before combining them. Too often students will be introduced to the roll only when they are required to perform them in concert

literature. Students must then acquire these skills much too quickly for them to handle.

Students who must acquire a roll in a very short time often develop multiple bounces of extremely short duration, producing an uneven sound. This is the result of bad habits and technical flaws that develop because they are not able to devote full attention to any specific sub-skill. Common flaws include: (1) insufficient stick response, due to excessive pressure on the sticks in the attempt to *make* the sticks do something, (2) gaps in sound between each hand resulting from undeveloped coordination in hand movement, and (3) faster hand speed than is necessary in an attempt to eliminate the audible gaps.

To avoid these problems, exercises at the beginning stage should focus on extended bounces. It is important for students to understand that a roll is intended to produce the effect of a sustained sound. Encountering exercises that encourage bounces of longer duration from each stick will foster a better understanding of how this sustained sound is produced.

Incorporating such an exercise into a school band method book would best be accomplished by having percussion students execute the repeating bounce technique while the wind players are producing their first sounds on their instruments. Since wind instrument exercises usually begin with whole notes, percussion parts might also begin by indicating a whole note for the execution of each multiple bounce. While it is unlikely that the stick will continue bouncing for the full duration of the whole note, attention will be directed to the concept of allowing maximum bounce from the stick, letting it continue to bounce freely until it has come to a complete stop. This will allow students sufficient time to become aware of the sensation of the bounce, and how a focussed grip and perpendicular plane of movement will aid the bounce effect.

These first exercises should introduce bounces in either the right or left hand alone, but not together. This way students may become more

fully cognizant of the sensation generated in each hand. However, the hand not executing the bounce is also an important part of a student's sensory development. A well executed multiple bounce roll not only requires that the sticks respond with long, sustained bounces but also that the bounces of one stick overlap the bounces of the other to avoid gaps between the sound of each stick. To accomplish this overlap of sound, students must learn to allow one stick to begin its bounce before the other has finished. Therefore it is helpful to execute these first multiple bounce exercises with one stick resting on the drum head so that students may feel the sensation of both sticks in contact with the drum at the same time. This will also help establish correct stick placement since it is possible to see the stick formation on the drum head and make adjustments as necessary.
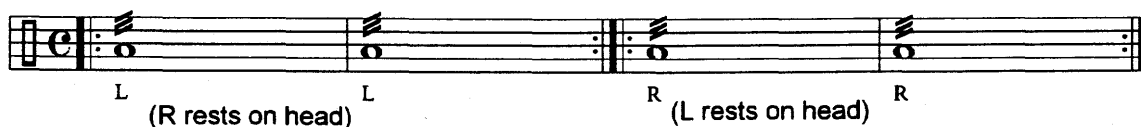


Example 6.1 Multiple Bounces - Hands Separately

Combining the right and left hands may be introduced with both sticks resting on the drum head. This *at rest* position is important for developing a smooth roll since it is the intention to generate as much sound from each stick as possible. If the stick is resting on the drum head when not in motion it will be subject to the vibrations of the head, thus continuing to generate sound. However, If the stick is resting in the air when not in motion it will be entirely silent. Having the sticks rest on the drum head ensures that each stick is generating the most sound possible. The only time each stick is not in contact with the drum is when it is lifted just long enough to generate another multiple bounce.

Whole notes should be used also for exercises that introduce

combining the right and left hand. The combining of both hands feels quite differently than executing each hand movement alone and therefore also requires much time and care to develop properly.



R (L rests on head)   L (R rests on head)   R (L rests on head)   L (R rests on head)

Example 6.2 Overlapping Multiple Bounces

There is a temptation among young percussionists to raise one stick as the other is falling, such that the falling stick triggers the upward movement in the other, resulting in no overlap between the bounces of each stick. This may be the result of attempting exercises at too great a speed. Using notes of longer duration, such as whole notes, will give students sufficient time to think about the motion of each hand individually, allowing each stick to complete its motion before the next hand movement is initiated. As coordination and independence develop, the exercises may use notes of shorter duration with several repetitions with each hand, gradually decreasing the number of repetitions until alternating hands is achieved.



L   L   L   L       R   R   R   R           L   L   L       R   R   R
(R rests on head)   (L rests on head)       (R rests on head)   (L rests on head)

L   L   R   R   L   L   R   R       L   R   L   R   L   R   L   R

Example 6.3 Progression of Multiple Bounce Repetitions

These exercises are helpful for developing the skills for producing the sustained sound of the roll. However, more skills are required for the roll

to be complete. Students must also develop the skills of starting and ending the roll. Starting the roll may be introduced at any time once overlapping bounces are secure. Ending the roll requires combining single bounces (taps) and multiple bounces (buzzes) and must therefore be introduced after both of these skills are secure.

### Single Bounces

Developing the single bounce requires sensitivity to the bounce of the stick. The stick must be allowed to bounce completely unrestricted, after which subsequent movement of the stick is prevented. This is more easily accomplished if there is ample time between the first two bounces to allow the hand movement that is required to stop the movement of the stick. Beginning students may find it easier to execute this action when dropping the stick from a greater height. This prolongs the time between consecutive bounces of the stick, allowing more comfortable execution of the task.

Since dropping the stick from a greater height produces a louder sound, it would be appropriate for beginning exercises to be played at a loud dynamic level. Attempting to play quietly tends to inhibit the natural rebound of the stick which may be counter-productive to a student's technical development. These first experiences must allow percussionists to play with full, free stick motion. This may result in excessive sound from the percussion section, however, at these early stages of development it is probably best to concentrate on good tone production and leave concepts of ensemble balance for a time when students have better control over the volume of sound they produce. As students progress they will gradually gain enough control of the bounce to produce a full sound even at very quiet dynamic levels.

In contrast to multiple bounces the rest position for the execution of

single bounces will be just *above* the surface of the drum head. This is to ensure that the sticks will not rest on the head but will bounce off, thus generating only one instantaneous sound. However, while the sticks will not rest on the drum head, they will still be positioned quite close to the head. This low rest position will continue to aid the conceptual development of correct hand and stick formation since these elements are easily visible to students as they play. It will also ensure that the stick is not *lifted* off the drum but allowed to *bounce* freely off the surface.

As with the multiple bounces, first exercises for single bounces should be introduced one hand at a time. With both sticks in rest position the stroke is initiated by raising one stick to a height that will produce the desired dynamic and allowing it to fall freely. Once it has bounced naturally off the drum head the free fingers gently touch the stick to prevent any further bounces. The stroke ends when the stick returns to *rest position*. Students will need to repeat this exercise several times to gain a sense of how it feels before proceeding to the same exercise with the other hand.

It is important that these skills be developed through carefully sequenced exercises. Notes of longer duration should be employed for beginning exercises to allow students ample time between taps to prepare and evaluate each execution. Each stroke must be understood as the completion of a cycle: the stroke begins by generating movement in the stick to cause the collision with the drum head; the collision occurs; the stick bounces off the head and comes to rest. In this cycle, *movement* of the stick before and after the sound of the collision must be considered part of the stroke; the stroke is not finished at the moment the sound is heard. For this reason instructional materials must include exercises that allow sufficient time for the execution of the complete stroke before initiating the next.

### The Multiple Bounce Roll Completed

It is important for instructional materials to specifically target the skill of initiating the roll as one of the sub-skills of roll development. This is due to the change in rest position necessary to play both taps and buzzes. While the sustained sound of the multiple bounce roll is executed with the sticks resting on the head, the sticks will always be resting *off* the head immediately preceding the roll. Therefore to initiate the roll students must learn to move from a rest position *off* the drum to a rest position *on* the drum, where the roll will be sustained.

This change of rest positions accomplished by initiating a multiple bounce in one stick. This stick then remains resting on the drum head as the second stick begins its multiple bounce. When the second stick has begun its multiple bounce, the change in rest position is complete. At this point the roll may sustained (as described above), or terminated.

Since termination of the roll constitutes yet another sub-skill in roll development, early exercises should focus only on the task of initiating the roll and sustaining it. Thus, once the sticks have come to a stop they may be lifted back into rest position above the drum head so that second attempt may be initiated. After students are secure with starting the roll, the length of the rolls may be extended by adding more alternating multiple bounces. In each case however the roll will end with the sticks resting *on* the head, then lifted back into rest position *off* the head only when it is necessary to initiate the next roll. This will reinforce the concept of the relaxed, overlapping bounce.
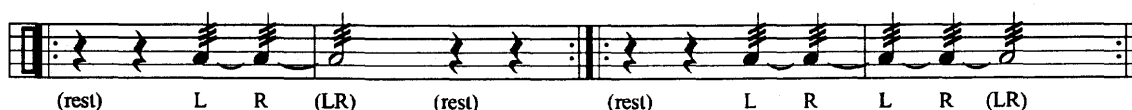


Example 6.4 Initiating the Roll

Terminating the roll also requires the development of other specific

skills. The roll normally ends with a tap. This means students must learn to execute the multiple bounce technique and the single bounce technique in combination. Instructional materials must provide opportunities to practice this by combining these techniques into one exercise. Students will be ready for this only when they are proficient in performing multiple bounces and single bounces in isolation.

To introduce this technique it may be best to start with one hand executing a multiple bounce while the other hand executes a tap. This requires each hand to execute only one technique at a time, thus reducing the cognitive load on the student and minimizing the possibility of confusion. The hand executing the multiple bounce will remain on the head until the second stick strikes the drum. At that moment both sticks come off the head, lifting the buzzing stick as the tapping stick rebounds freely off the drum. After each buzz/tap combination it is necessary to allow students time for the sticks to return to rest position so that the cycle may be completed before initiating the next. When this buzz/tap combination is secure, reverse the task of each hand so that an ending tap may be developed in the other hand.



Example 6.5 Concluding the Roll

The development of longer rolls requires a new skill in addition to the skill of executing the buzz with one hand and the tap with the other. In the buzz/tap combination each hand executed either the buzz or the tap but not both. In the longer roll, however, the hand executing the tap must also execute one or more buzzes preceding the tap. Therefore it may be beneficial to introduce an exercise intended to isolate this skill. Alternating taps with buzzes, one hand alone, will allow students to feel the distinction

between the execution of the buzz and the execution of the tap in the same hand. Once students are able to distinguish the sensation of the buzz and the tap in the same hand they will be better able begin selectively executing one or the other.



Example 6.6 Buzz/Tap in the Same Hand

This skill may then be combined with overlapping buzzes to produce rolls of longer duration that end with a concluding tap.



Example 6.7 Longer Rolls

**Flams**

The flam rudiment utilizes the 'single bounce' technique, requiring the execution of one 'single bounce' from each hand. This single bounce technique is relatively elementary which seems to lead instructional designers to the conclusion that the flam is a relatively simple rudiment to master. This is perhaps why it appears quite early in many band method books.

There are, however, two additional factors in executing the flam that present a particular challenge to the beginning percussionist; (1) the single bounces occur almost at the same time yet not simultaneously, and (2) the first of the two taps must be at a significantly lower dynamic level than the second tap. The resultant sound is very much like that of an appoggiatura; a primary note immediately preceded by a softer ornamental note. Because

all these factors must be processed at once, the properly executed flam is quite a complex rudiment. Thus several sub-skills must be acquired before students are adequately prepared to attempt the execution of accurate flams.

Many beginning percussionists find this rudiment difficult to execute properly. Often this is because the exercises in most band method books do not offer enough developmental preparation. Students are not able to simultaneously develop all the skills required to play correct flams, yet many band class method books present flams without any introduction of prerequisite skills. The most notable omission of prerequisite skills development is the introduction of flams before the student has been introduced to dynamics.

As noted above, the flam requires the execution of both loud and quiet dynamics, almost simultaneously. If a student does not know what loud and quiet *feel* like in *isolation*, the likelihood of proper *simultaneous* execution is remote indeed. The result is often the development of flams in which the two single bounces are almost the same dynamic. For this reason the flam should be introduced only after the student has gained good dynamic control on the snare drum.

Dynamic control must therefore lay the foundation for studying the flam. Once students have been introduced to dynamics as described in the previous chapter, and are capable of executing both loud and quiet sounds with either hand, the next step would be alternating loud an quiet dynamics with each hand in isolation. It may be best to begin with a series of strokes in one hand at the quiet dynamic to firmly establish the feeling of the stroke falling from a position low to the drum. Then should follow a series of strokes in the same hand at the loud dynamic to firmly establish the feeling of strokes falling from a position high above the drum.

When shifting from one dynamic to the next students should be allowed time to pause, bring the stick to the rest position, and prepare for

the next dynamic. This preparation time is very important in developing control of the stick. It allows for more dynamic contrast by providing time to think about how high or low the stick should be raised to produce the desired volume. It also allows for more consistent production of both loud and soft dynamics because the student has time to make a definite shift in dynamic levels rather than gradually becoming louder or quieter. With practice, the time required for this preparation will become shorter in duration. More advanced exercises may thus challenge students by including more rapid changes in dynamics.



Example 6.8 Dynamic Control - Hands Separately

This same procedure for developing dynamic control will of course be required of both hands. Once each hand is able to clearly distinguish between the two dynamic levels, preliminary skills for execution of the flam may begin. Since the flam is produced by a quiet sound in one hand while producing a loud sound in the other, students must first be made aware of the feeling when one stick drops from a position low to the drum while the other drops from a position high above the drum. Again a series of soft taps in one hand will firmly establish the feeling of the low strokes. This may be followed by a series of loud taps in the other hand to firmly establish the feeling of the high stokes. The number of strokes in each hand may then be gradually reduced till there is only one tap with each hand. It should now be clear that the previous exercise was an important intermediary step because students may use their memory of the feeling of each dynamic to help them play separate dynamics in each hand.

```
r   r   r   r   L   L   L   L      r   L   r   L   r   L   r   L
l   l   l   l   R   R   R   R      l   R   l   R   l   R   l   R
```

Example 6.9  Contrasting Dynamics - Hands Separately

 

The complete flam is to be conceived as one action involving both hands. The previous exercises developed a physical sense of what loud and quiet strokes in opposing hands feels like. This sensory understanding may now be used to produce loud and quiet strokes together in the execution of the flam. Starting with both sticks in rest position, both sticks initiate the stroke simultaneously, one preparing for a loud tap by being raised higher, the other preparing a soft tap by remaining closer to the drum. If both sticks are allowed to fall simultaneously, the one closest to the drum will make contact first. Coincidentally, because this stick was closer to the drum it will produce a softer sound than the other. Thus simultaneous motion from both hands will produce both the desired volume for each stick and the appropriate time interval between the sounds from each stick.

The low rest position, described earlier, is critical for developing the flam. If both sticks rested high above the drum, the execution of the flam would have to be preceded by lowering one stick to a point where it will produce the desired soft tap. This means the stick must first drop to the low rest position, stop, and then drop from the low rest position to the drum, thus producing the soft tap. This obviously requires extra movement, presenting the danger of striking the head much too loudly because the stick could not be stopped in time. By starting every stroke from the low rest position the sticks are allowed to fall freely from the point to which they are raised, resulting in a more natural, relaxed movement. Furthermore, combining strokes and taps becomes less complicated because the same movement is required for producing a flam

as for producing a tap; one stick is raised to a height appropriate to the dynamic desired. The difference is that with the tap, one stick is allowed to drop, while with the flam, both sticks drop to the drum head. This fosters a much more consistent method of playing, which in turn develops a more fluid technique.

Combining flams and taps, just as combining rolls with taps, deserves special care and attention. There are several skills that need to be addressed in learning to combine flams and taps, and each of these skills should be introduced in isolation. These skills involve changing the height of the stroke of the stick so as to accommodate taps and flams in various combinations; flams followed by taps (flam/tap), taps followed by flams (tap/flam), and alternating flams and taps. The flam/tap combination should be introduced first because it involves *generating* additional movement in the stick as opposed to the tap/flam combination which involves the more difficult skill of *restricting* movement in the stick. Obviously alternating taps and flams requires both these skills and should therefore follow them in sequence.

When executing a flam in one hand followed by a tap in the other hand, the stick producing the soft tap of the flam must follow with a loud tap. These should be first attempted with sufficient time between each flam/tap to allow the sticks to come to rest position. This provides an opportunity for students to prepare for the stroke which follows the flam. At faster tempos, the stick will no longer come to rest but will move seamlessly from the soft tap to the loud stroke. Thus the movement of the stick at slow tempos constitutes two separate strokes but at faster tempos it becomes a low drop followed by an artificially high rebound (produced by raising the stick with the hand) so that it may fall from a higher height.

Example 6.10 Changing Stick Height - Low to High

When executing a tap in one hand followed by a flam in the other, the stick producing the first tap must follow with the soft tap of the flam. Again this skill should begin slowly, allowing time to prepare each stroke. At faster tempos the movement of the stick becomes a high drop followed by a control of the rebound (produced by finger contact with the stick) such that the stick may fall from the low rest position.



Example 6.11 Changing Stick Height - High to Low

When executing alternating flams and taps (one hand executing flams while the other executes taps), the stick executing the single tap must execute both the soft taps of the flam and loud single taps alternately.



Example 6.12 Alternating Stick Height - One Hand

Once each hand is capable of executing these combinations, it is time to introduce exercises that involve both hands changing stick height. As with hands separately, the flam/tap combination in alternating right and

left hand should be introduced first.



IR       L       rL      R       IR   L       rL   R
rL       R       IR     L       rL   R       IR   L

Example 6.13 Alternating Stick Height - Alternating Hands

Then should follow the tap/flam combination (alternating hands as above) and finally, the student should be introduced to alternating flams.

### Double Bounces

It has been argued by some prominent percussion educators that the multiple bounce technique should be avoided, especially for the beginner, so that "he may be trained to master the more difficult ... two-beat [double stroke] roll first" (Stone, 1961, p. 24). While this has been a widely held point of view, it may not be a particularly sound educational strategy. Educational psychologists might argue that it is inappropriate to begin instruction with a more difficult technique when a less complex, prerequisite technique may be introduced first.

Admittedly, the double stroke roll in its *simplest* form consists of two 'single bounces' in one hand followed by two 'single bounces' in the other. Such exercises would be appropriate to introduce quite early in a student's development. However at faster tempos it is necessary to employ a 'tap-and-a-bounce' technique, or double bounce, to accommodate for the speed with which the sticks must contact the head. This technique is accomplished as a *manipulation* of the *multiple bounce* technique. The reason that the double stroke roll is more difficult to develop is because it is an *advanced modification* of the multiple bounce technique. Thus, the double bounce should follow the multiple bounce in order of study.

More advanced control of the natural rebound of the stick is required

for executing the double stroke. In contrast to the multiple bounce which allows as many rebounds as is possible, the double stroke allows only one rebounding tap following the initial tap. This means that the hand must be sensitive enough to the movement of the stick that it can interrupt the natural tendency for the stick to continue bouncing after it has bounced twice and before it bounces a third time. This skill of course requires much time and practice to acquire. However, students may require less instruction time if they are first allowed to develop the physical knowledge of the natural movement of the stick. It is only through understanding the natural bounce of the stick that there is the possibility to manipulate the bounce, allowing a specific number of bounces to occur.

### Ruffs

The three stroke ruff (often referred to as the *drag*) combines the single bounce technique, the multiple bounce technique, and the technique of producing contrasting dynamics in each hand. Because of the complexity of combining all these techniques, instruction for executing ruffs must follow the instruction for all previous skills. A well developed flam and double stroke roll are essential to the development of the ruff.

The ruff is much like the flam, consisting of a primary note preceded by an ornament. In this case, however, the ornament consists of two soft notes rather than one. These two soft taps are produced by allowing the stick to bounce, as when executing the double stroke. Thus the ruff is a soft double bounce produced by one hand immediately preceding a loud tap executed with the other hand.

While most of the skills required for executing the ruff have already been developed through study of the rudiments above, it is important to be certain that students have experienced the double bounce at the quiet dynamic level before proceeding with the study of the ruff. Double bounces executed softly generate a different sensation in the hand than do

loud double bounces. Therefore students must first be given the opportunity to learn how the soft double bounce feels, and how this sensation differs from the feeling of the loud tap.

Again it is best to begin with one hand alone. Students must learn to distinguish the feeling between soft doubles and loud taps. Beginning with one hand in isolation allows students to focus on each task separately. Sufficient time to prepare each stroke is again important as well. The stick must come to rest between the ruff and the tap to allow completion of the entire stroke cycle. Once students are capable of making clear and accurate distinctions between soft doubles and loud taps with each hand, they may proceed to executing soft doubles in one hand while the other hand executes loud taps.

The procedure for *developing* the ruff is the same as for developing the flam. Students must learn to execute repeated ruffs with each hand, alternating ruffs and taps with the same hand, a ruff with one hand followed by a tap with the other, a tap with one hand followed by a ruff with the other, and alternating ruffs. For each of these skills the same exercises used for developing the flam may be employed, substituting ruffs for the flams.

## 6.1.2 Keyboard Percussion

The most significant difference between teaching keyboard percussion and teaching snare drum is the reading of specific pitches. The method for teaching *note reading*, however, has been aptly dealt with in numerous pedagogy texts for other instruments, and is perhaps not germane to this discussion. It may be sufficient to state here that it seems to have been generally accepted that notes should be introduced one at a time in such a manner that the student is able to remember the location of all the notes. In a band class, the sequence in which these notes are introduced usually corresponds to the sequence found in their band class

method book.

It is not the intent of this discussion to suggest new strategies in teaching note reading. Even if a better note sequence for keyboard percussion instruction were determined, it would not be helpful for percussion students to be learning the notes in a different order than the rest of the class. To keep teaching efficient, the sequence utilized must be the same for all class members. The purpose here is to *use* this note sequence in creating a system of instruction that develops a student's technical ability. Thus instructional materials need not be too concerned with modifying the note sequence to accommodate the keyboard percussion instruments. This sequence should be determined by its effectiveness for the wind instruments. It is not *which* notes are used that is most important in developing keyboard percussion technique; it is *how* the notes are used that will determine the effectiveness of the method of instruction. In this area much can be done to improve the band class instructional materials.

Technical skills on the keyboard percussion instruments may be divided into two areas of concentration, two-mallet playing and multiple-mallet playing. Two-mallet playing refers to the use of one mallet in each hand; multiple-mallet playing refers to the use of more than one mallet in one or both hands. Two-mallet playing has generally been considered a beginning technique and multiple-mallet playing has generally been considered more advanced. More recently, however, some keyboard percussion teachers have advocated introducing multiple-mallet playing much earlier. While this technique should be introduced early, it should not be the student's first experience on the keyboard percussion instruments.

Students should be introduced to keyboard percussion with two-mallet playing. There are two reasons for this. First, the teacher may draw on the concepts for snare drum playing in introducing the keyboard

instruments, strengthening the concepts of a natural motion, the falling implement, and the natural rebound. Secondly, two-mallet playing will help develop an understanding of the concepts necessary for multiple-mallet techique. Once a good foundation for two-mallet playing has been established, it is advisable to begin with multiple-mallet instruction.

For both two-mallet and multiple-mallet development, instruction should begin with each hand in isolation. This demands attention to a minimal number of movements, allowing students to more accurately assess the execution of each stroke. Furthermore, working one hand at a time allows students to devote equal attention to both hands. Omitting this step may result in unconscious underdevelopment of one hand. Thus instructional materials should include one-hand exercises as prerequisites for all future development. Exercises must then address alternating motion (focussing attention on each hand alternately) and finally, unison motion (both hands working simultaneously). Basic two-mallet technique will serve here as an example of this process.

### Two Mallet Technique
*hands isolated*

Beginning exercises should focus on the development of tone production. To allow students sufficient opportunity to evaluate the quality of tone produced, one-hand exercises should begin with repetitions of a single note. This isolates the *vertical* motion of the mallets, thus reducing the cognitive load on the student. The time between each stroke must also be sufficient to allow evaluation of each collision. (Stevens, 1990, p. 101) The use of whole notes in such exercises may again be helpful in encouraging students to think more actively of the entire stroke cycle, from preparation through execution and evaluation. Developing these skills will require exercises that progress through increasingly more rapid succession of strokes, developing coordination, muscle control, finesse and strength.

Once the foundations of tone production have been established, students must learn to coordinate this *vertical* motion with *horizontal* motion, so that they may play notes throughout the range of the instrument. Horizontal motion exercises should begin with lateral movement between neighbouring notes on the same keyboard bed. This allows students to continue monitoring tone production while introducing the added task of moving from one note to the next with as little new physical movement as possible.

Next should follow movements between neighbouring notes on different keyboard beds. These exercises will introduce the addition of movement forward and back as the mallets move from the lower keyboard bed to the upper keyboard bed and back. Thus, horizontal motion is not limited to movements left and right, but encompasses any movement of the mallets on a horizontal plane.



R only
L only

Example 6.14 Horizontal Motion - One Hand

Extending these concepts of horizontal motion, exercises should include the addition of increasingly larger intervals, at increasingly faster speeds, while maintaining control of vertical motion and tone production.

### hands in combination

Combining the hands involves physical and mental control of more muscles. As a result, students often experience difficulty at this point, as evidenced by poor technique and confusion about how to coordinate the use of both hands. This is quite common, which probably indicates that instructional materials have not adequately prepared students for the task.

Proper preparation would involve ensuring that all prerequisite *skills* have been addressed and that students have gained an *understanding* of how to coordinate both hands. Unfortunately, many band class method books fail to address either of these requirements.

Many early exercises utilizing alternate sticking require the mallets to pass each other. Such exercises might include scale-like passages in which each successive note is to be played by an alternate hand. This causes the mallets to be placed very close together so that either hand is in a position to play any of the notes. To avoid the confusion of coordinating the mallets in this manner, students often resort to the use of only one hand. Since the tempo is usually quite slow at this stage, students do not recognize the potential problems with this practice and soon it becomes a habit. The result is that students develop limited technical skills and poor concepts for the use of both hands in combination. To help students learn to coordinate both hands, early exercises should include several intermediary steps.

### segregated mallets

Instruction in playing *hands combined* may begin with exercises which segregate the mallets. Each mallet would play notes on a different area of the keyboard. For instance notes played by the left hand would be to the left of notes that are played by the right hand. Alternatively, one mallet could play notes on the lower keyboard bed while the other mallet plays notes on the upper keyboard bed. This allows students to focus on producing a good sound with each hand while adding the skill of using the hands in combination. Thus both hands may work in combination without the mallets interfering with each other by requiring them to occupy the same space at any time. In addition such exercises would allow the development of a system of sticking patterns that avoid one mallet crossing over the other.

The first exercises involving alternate stickings should use two notes in alternation, beginning with two notes on the same keyboard bed, then using two notes on different keyboard beds. This minimizes the amount of new information to be processed with each new exercise.

Example 6.15 Alternate Sticking
Same Keyboard Bed / Different Keyboard Beds

Subsequent exercises should increase the number of notes played by one mallet, keeping the other mallet stationary. The stationary mallet will strike only a single note in alternation with the other hand which will move sequentially in patterns similar to those in the one hand exercises above. If the exercise involves the left hand remaining stationary, the right hand will be playing higher pitches than the left, if the right hand is stationary, the left hand will play lower pitches than the right. This way the mallets remain separated, never crossing, always playing notes that logically fall under each mallet.

Example 6.16 Expanding Range - One Hand in Motion

When students can successfully perform exercises which maintain one hand as constant while the other moves sequentially, they should proceed to exercises that involve both hands moving sequentially.

Example 6.17 Expanding Range - Both Hands in Motion

Following these alternate sticking patterns, exercises may be introduced which engage both hands simultaneously (double stops). Similar note patterns and sequences of instruction may be used for these exercises as for the alternating exercises. The significance of these new exercises, however, would be to help students learn to read both notes, and control technique in both hands simultaneously.

### passing mallets

It is often necessary to employ sticking patterns that cause the mallets to pass each other. Such patterns would occur, for instance, when playing a scale with alternate sticking (each successive note struck by an alternating mallet). This necessitates the development of concepts regarding how the mallets may move past each other without interfering with the movement of the other.

To accomplish this efficiently, students must learn to adjust the formation of the mallets to accommodate for the placement of the mallets comfortably on the notes being played. The following figures indicate the mallet formations for three types of passages;
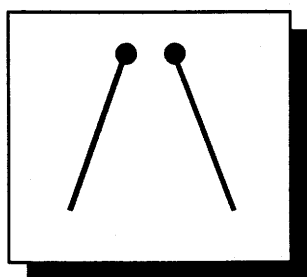


Figure 6.1 Mallet formation when neither mallet is passing
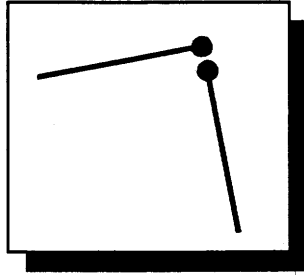
Figure 6.2 Mallet formation when left mallet passes right
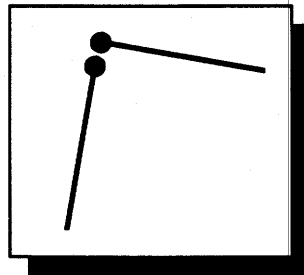


Figure 6.3 Mallet formation when right mallet passes left

Students must then be presented with opportunities to try these formations so they will understand how they facilitate playing certain passages. The first exercises should involve few notes. The mallet executing the passing should be the only mallet in motion. The other mallet should remain on an *anchor* note. This will allow the student to see how the passing is accomplished. If both mallets were in motion, it would be more difficult for the student to recognize the specific movement required for passing one mallet with the other. For instance the following example shows two passages involving the left mallet passing the right. These may be played most efficiently by using the mallet formation shown in figure 6.2.
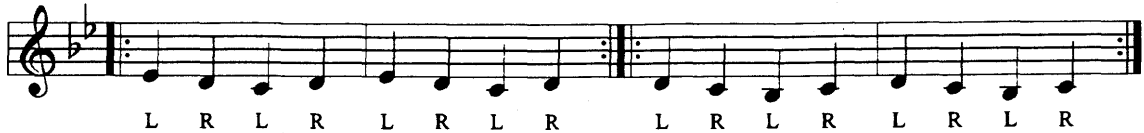
Example 6.18 Passing Mallets - Left Passing Right

Similarly, the right mallet may pass the left more efficiently if the mallet formation shown in figure 6.3 is used.
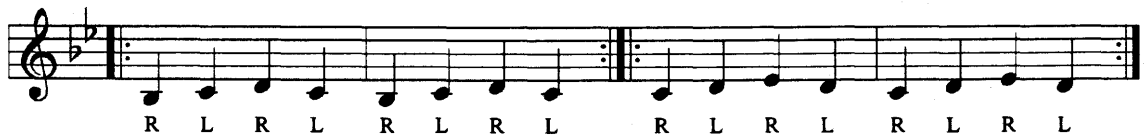
Example 6.19 Passing Mallets - Right Passing Left

Again, as when developing elementary sticking patterns, it is best to keep one mallet as a constant and let the other move in relation to it. When students are capable of performing these exercises with each hand, they should proceed to exercises where both mallets use a crossing motion as in example 6.20 below.
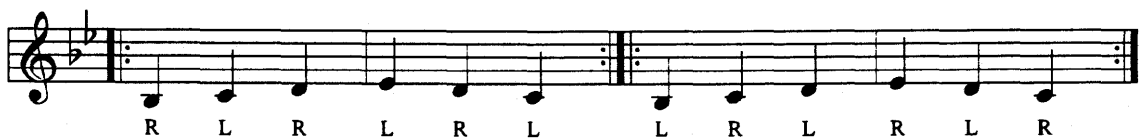
Example 6.20 Passing Mallets - Both Mallets Passing

## 6.2 Organizational Skills

An important aspect of percussion performance that has received little attention in instructional materials is the development of skills for organizing the band class percussion section. Historically, compositions have demanded few organizational skills of the percussionist. A small number of common instruments among most compositions meant that each percussionist was generally responsible for only one instrument. Thus there was little need to teach how to handle large, complex instrument setups.

As shown previously, however, contemporary literature often demands significant organizational skills in order to manage the large number and variety of percussion instruments required. Unfortunately, instructional materials have failed to meet these demands with a corresponding development of instructional aids for teaching percussion students such skills. It is necessary, therefore, to develop new instructional materials for the band class which include well-formulated strategies for teaching these organizational skills. With well-formulated strategies for instruction, the development of organizational skills will not be left to chance, nor will percussion students receive such instruction only as the need arises.

The instructional strategies presented here will be divided into two categories; (1) creating a functional arrangement of equipment and (2) preparing the parts. As with technical skills, organizational skills must be developed through careful sequencing and distribution of appropriate experiences. The goal of such experiences should be to help students develop greater independence in decision making. Students must be shown the principles upon which to organize parts and equipment, then presented with challenges that lead them toward making good organizational decisions.

### 6.2.1 Creating a Functional Arrangement of Equipment

Instructional materials must help students learn to create a functional arrangement of equipment which will provide the greatest accessibility to the instruments. Of course many factors are beyond the control of the percussionist such as the size and shape of the room. However, the arrangement and setup of the instruments and accessories are factors that may be modified to accommodate the demands of different performing situations. Such modifications enable percussionists to create a physical environment that facilitates efficient playing of their parts.

Students will tend to use whatever instrument setup they encounter, adapting to the arrangement rather than creating one that facilitates more efficient playing. Instead of rearranging the instruments to suit the situation, students will often make extremely inefficient use of their time and energy by trying to get to the instruments wherever they happen to be placed. This tendency to adapt to the placement of instruments, rather than modifying the instrument placement to accommodate for ease of playing often results in rehearsals that are not productive, and performances which seem unrehearsed.

Perhaps an example will best illustrate the potential disorganization and confusion that can result from poor accessibility to various percussion instruments. Consider the scenario of a composition in which the percussionist begins on the snare drum located to the left of the section. The tambourine must then be played, but it is near the middle of the section. The percussionist takes the tambourine to the snare drum, where the music still sits, then after playing the passage, sets the tambourine on the floor to resume playing the snare drum. Before returning to the snare drum part, however, the percussionist must first go back to where the tambourine was found to retrieve the snare drum sticks that were set on the floor when the tambourine was taken. The percussionist must then move to the bells located to the right of the section and so takes the music

in one hand and the sticks in the other and moves them to the bells. After setting the sticks on the floor the percussionist discovers that the mallets required for this passage are with the xylophone.

Such experiences as this are often encountered by young percussionists, causing them to become ever more frustrated and confused about where to go next and what they need to take with them. Clearly, however, a modification to the setup would solve most of the problems encountered here. The snare drum and bells could be set next to each other with a tray between them for the tambourine, sticks and mallets. In addition a copy of the music could be placed on the each music stand, eliminating the necessity of carrying the music from one stand to another.

This is a small problem with quite a simple solution. Guiding students through experiences such as this will help them learn to develop solutions to much larger problems. Most problems students encounter will generally be solved by applying certain principles to each new situation. Thus it is necessary to identify principles which will help students create more efficient environments for themselves.

### Trap Trays

Percussionists commonly use trays for keeping mallets and small instruments accessible. These trays often consist of simply setting the desk of a music stand to its horizontal position and placing cloth over the metal surface. The percussionist then has a compact storage space for mallets and accessories that is easily moved to the most convenient location. The cloth protects delicate instruments from scratches and silences the sound of items being set on the tray. Furthermore, provided that there are sufficient music stands, the percussionist has access to as many trays as are necessary.

While this procedure is quite simple, it is not necessarily an obvious solution to the percussion student for solving the problem of organizing

small equipment. The tendency to accommodate for poor placement of instruments often leads students to use the floor as the most obvious storage space. Not only is this much *less* convenient for the percussionist (who must reach for the floor to acquire an item), it is also quite unsafe for the equipment (which may be kicked or stepped on) and unhealthy for the student because of dirt and germs picked up from the floor.

The objective of such instruction should be to enable students to recognize when and where it would be more efficient to use trays. Students must be taught the value of using trays for keeping mallets and accessories accessible, safe and clean. It is not sufficient to simply tell students the importance of using trays. Such instructions are meaningful for students only when there is a *practical application* of the instruction.

Instructional materials must therefore provide students with opportunities to *experience* the benefits of using trays. An exercise in which students are required to make several quick changes between two different pairs of mallets may be an appropriate first experience. Other exercises may involve exchanging two different hand instruments, such as tambourine and claves. More advanced exercises will increase the number and difficulty of the exchanges.

A tray should be positioned everywhere that mallets or small instruments and accessories will be used. Placed in front of the performer, easy access will be facilitated. The number and placement of trays will be determined by whether the student is right-handed or left-handed, which instruments are used, and how many mallets are required for each. It may be convenient at times to set up two trays for one instrument, either because of the number of mallets required, the number of accessories that must be handy, or due the nature of exchanges that are required. An example of the latter may be a composition for snare drum that requires an

extremely fast change from sticks to brushes. The student must perform two action in rapid succession; set down both sticks and pick up both brushes. A tray to each side of the snare drum with a brush on each would allow the student to execute both actions with each hand simultaneously, saving valuable time.

Trays also keep mallets and accessories in sight at all times. This will allow percussionists to have these items easily accessible as they move about the section. Students should be instructed to leave mallets with the instrument so that when students move to the instrument the mallets that they need will be there. Instructional materials should include exercises which involve moving from one instrument to another (perhaps two or more percussionists exchanging places) to help them become acquainted with the practice of leaving mallets and sticks with the instruments. For instance the snare drum player and the bell player, each with a tray by their instrument, would exchange places, the snare drum player leaving the sticks on the tray by the snare drum and the bell player leaving the mallets on the tray by the bells.

### Moving Instruments and Personnel

It is often necessary for percussionists to move around the section to get to instruments that must be played, or to move instruments to places where they may more easily be played. The basic principle guiding such decisions should be to achieve the least possible movement. Most efficient execution of a part is attained when the least amount of moving is required. Students should be taught how to create environments that will reduce the amount of movement that takes place during rehearsals and concerts.

#### Minimizing movement of personnel

Reducing the need for people to move to another instrument during

performance usually means creating a setup for the instruments in which; (1) instruments that are often played by one person are close to each other, (2) instruments that often share a printed part are close together, (3) instruments that are the most often used, or most often shared, are near the centre of the setup. An arrangement of the instruments that takes these factors into account will greatly reduce the amount of movement that each person will be required to do.

For instance, the keyboard percussion instruments are often written to be played by one person, so it would be most convenient to have them near each other, the one(s) most used nearer the centre of the section. On the other hand, parts are often assigned to the timpani which do not include doubling on other percussion instruments. The timpani, therefore, since the timpanist is least likely to need to move to another instrument, should be placed somewhere that no one must walk around them to get to another instrument, perhaps to one of the ends of the section. Bass drum and cymbals often have parts combined onto one printed part.[14] These instruments should therefore be close together so that neither player must strain to see the music. Bass drum, cymbals and snare drum would typically be the most likely instruments called for in the percussion section. It would probably be most convenient to keep these instruments near the centre of the percussion section. To avoid cumbersome movement within the section and increase communication between percussionists the bass drum, which is large and difficult to see around and move around, should probably be placed to one side. Small percussion instruments may be placed either where they are needed most, or kept near the centre so that they may be found more easily as they are required.

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[14] This is due, no doubt, to the historical practice of playing "pumps"; bass drum with attached cymbals played by one percussionist. Today this technique is seldom used but printed parts still often use this traditional form of writing.

Beyond these few guidelines, there is room for a great deal of modification to the setup to accommodate compositions with varying instrumentation requirements. In some situations taking time to re-position an instrument before the piece begins may be more convenient than having the performer move from one instrument to another during the performance. Whatever setup is used, it is important that there is plenty of room behind the instruments, both for those playing the instruments *and* for those who must move within the section to get to another instrument. Organized movement withing the percussion section can only be achieved when there is room to manoeuvre.

### *Minimizing movement of instruments*

Although the creation of a functional setup is very important to the efficient execution of the percussion parts, excessive rearranging of instruments can also be counter-productive. Students must learn when it is more efficient to re-position the instruments and when it is better to leave them where they are. Thus preparing for performances will require considerable planning.

First, students must envision the entire *composition* in terms of the instrument requirements. An arrangement of instruments must be devised which minimizes movement, yet provides most efficient access to the instruments for all percussionists.[15]

Secondly, students must envision the instrument setup for the entire *concert*. A setup which works for one composition may make another composition impossible to play without moving a great deal of equipment.

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[15] In some cases it may be possible to use multiples of some small instruments such as tambourine or suspended cymbal so that the same item need not be carried around the section while the piece is being performed. One item for each station that requires one would solve the problem of not having an instrument because someone else is using it.

Compromises may have to be made to the instrument setup for one piece in order to create the most efficient setup for the entire program. Included in such decisions must be the knowledge of which compositions will be performed *and* the order in which the compositions will be performed. The movement of instruments during the course of a performance can vary considerably depending on the order in which they are programmed. [16]

Making the most efficient use of the resources at hand should become the prime objective for students developing such organizational skills. There are several principles that will help students learn to make such decisions. Students should be taught that it is best to; (1) avoid moving instruments while a piece is being performed, (2) avoid moving large instruments, (3) avoid situations where instruments must be moved very quickly, and (4) avoid moving instruments over great distances.

Instructional materials may help students develop such organizational skills by including problem solving assignments. These would be designed to challenge percussion students to create setups from a specific set of conditions. Early exercises would present simple, one-person setup problems with few instruments. More advanced exercises would increase the complexity of the set, use more instruments, involve more people, and include more compositions.[17] Most importantly, students must be given opportunities to encounter such problem solving situations, so that they may gain the skills to come up with creative solutions.

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[16] At times it may be helpful to include an intermission between two large, yet different, setups.

[17] In an band method book, full compositions would not be presented. However a similar problem could be simulated by requiring the student to organize a setup for all the exercises on one page to be performed together.

**shared resources**

Organization may also be improved if percussionists have appropriate mallets, accessories and music at each station that they will be required. Therefore, it would be helpful if multiples of often used sticks, mallets and small instruments are available. In addition, printed parts that are needed in several places should be obtained in enough numbers to have one part at each station. This eliminates the need to carry these items from one place to another during the performance. Thus when percussionists must move to another instrument, they can be sure to find all the required items at the station where they are needed. Leaving items where they were found, in this manner, greatly reduces the risk of percussionists misplacing the items they need.

The principle guiding such organization is the concept of *shared resources*. Each percussion student should come to class with their music and a collection of sticks and mallets appropriate to the instruments available.[18] Students may then distribute their mallets and sticks around the section so that each large instrument is furnished with a trap tray equipped with all appropriate mallets. Sharing items in this way means that each student need only acquire a minimal number of items, yet there can be a good selection of mallets for each instrument. Moreover, students will not find themselves in the situation of having to search for mallets during rehearsals or performances.

In the same way the sticks and mallets are distributed about the section, students should distribute their copies of the music to each music stand as well. Each percussionist may leave their part with a different

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[18] It may be appropriate for the school to provide some items for the percussion students such as bass drum mallets, gong mallets, and chime mallets. However, students should have their own snare drum sticks, brushes, a variety of keyboard percussion mallets, and a variety of timpani mallets.

instrument, even though they may not play only that particular instrument. This develops the concept that music is associated with the instrument, not the musician. When the music is associated with the instrument, there is never a need to look for the music or carry it from one instrument to another; it may always be found with the instrument where it is needed.

At times this may make it necessary to acquire an additional part from the publisher for an instrument that shares a printed part with another instrument. The part may then be marked with the name of the instrument at the top *and* the name of the student. This way each student knows *which* music they are responsible for and *where* it is to be.

This idea of shared music can easily be incorporated into instructional materials for the band class. Exercises may be included in which each percussion student must successively shift locations. This would require them to move to a new instrument, leaving their music where it is so that it is ready for the next student.

Furthermore it would be helpful for students to have a specific stand to which their music book is to go when they come to class. This reinforces the concept of sharing resources. Although students may be responsible for taking care of their own music books, they are also responsible for making sure that the books may be found with the proper instrument when rehearsal begins.

## 6.2.2 Preparing the Parts

Equally as important as preparing the physical environment is the preparation of the parts to be played by the percussion section. Careful consideration of how the parts will be distributed among the percussionists and how the printed parts will be marked, will help avoid many organizational problems.

### Assigning parts

The distribution of parts should always be done with the purpose of matching the abilities of each percussionist with the technical and musical demands of the parts. This, however, is only one aspect of part assignment that students must learn. Most modern compositions will require that each percussionist play a number of instruments. It is often necessary for the students themselves to determine which instruments will be played by each percussionist. Thus, percussion students must gain skills and understandings that will help them learn to organize the playing of a large number of instruments.

Preparing parts for distribution must take into consideration: (1) large instruments are less easily moved and should serve as the starting point for assigning instruments (the smaller instruments should be considered later since they can be moved to any part of the section where they are needed), (2) instruments that are not played at the same time may be played by one person, (3) instruments that are placed close together are more easily played by one person, (4) there must be sufficient time to change from one instrument to another, and (5) instruments that are to be struck with the same implement can be played in faster succession.

Instructional materials may easily incorporate developmental exercises for helping students understand how to organize these factors. The exercises would take the form of parts for percussion section which include a number of different instruments. These parts could be performed as written with one or more percussionists on each part. With the information above as background, students would answer questions regarding how these parts could be played by fewer performers, and which instruments each percussionist would play. Early exercises should focus on one of the above five factors at a time so that students need not consider too many variables at once. More advanced exercises would combine two or more of these factors so that students learn to make the

necessary compromises that arise in the band literature.

### Marking parts

The printed parts that percussionists receive often contain little or no information regarding the organization of the percussion section; they merely indicate what is to be played and when. To organize the percussionists so that the parts may be played with confidence and security, it is usually necessary to make pencil markings in the parts to indicate certain performance aspects that do not appear on the page. Generally, anything that the percussionist wishes to remember about the performance of a particular composition should appear as pencil markings in the part. Unfortunately, many students do not come to this conclusion on their own but rather attempt to play the part without any aid for remembering these many fine details.

To date, instructional materials have not included information and subsequent exercises to help students learn about marking their parts, except for the marking of counting, which has helped students understand when and how to include such markings. Beyond this, most band class methods do not develop the same understanding about marking other information in the parts. This lack of a need to write reminders into the part has perhaps led students to the habit of leaving the part untouched. It is only through practice that students will be confident in marking parts in a meaningful way. Therefore it is important for instructional materials to incorporate such exercises into their curriculum. Cook (1988) has developed a very useful section in his college technique text, dealing with the subject of musical interpretation of percussion parts, in which he describes in detail the marking of parts (pp. 457 - 486). Peters (1993, p. 70) and Garofalo (1983, pp. 33, 34) also describe some principles for the marking of parts. These sources provide excellent information regarding where and how to mark percussion parts, as well as what type of markings

might be useful.

The following is a list of types of markings that students should learn to incorporate into the printed parts for percussion.

- *technical directions* (including directions for muffling, sticking and specific techniques to be used)
- *musical interpretations* (including articulations, exact duration of notes, tempo and dynamics)
- *indications for tuning changes on timpani*
- *mallet selections*
- *positioning of instruments* (such as turning the bass drum flat, or playing tambourine on the knee)
- *indications to move to another instrument*
- *diagrams for instrument setups*
- *numbering of measures for sustained rolls or repeated patterns*
- *cues for other instruments to help keep track of long rests*

The nature of such instructional exercises in a band class method would be similar to those used for developing skills in music theory involving pencil and paper. Examples of a marked part would precede any exercises. Exercises requiring the addition of markings would follow, including blanks to be filled in by the student where the markings should appear. First exercises would again focus on only one type of marking with clear indications about what to mark and where to mark it. Subsequent exercises would incorporate two or more types of markings with a gradual reduction in the direction about what should be marked.

The objective of such exercises would be to develop more independence in students in making decisions about where and when to make markings in their parts. Once students have seen examples of a marked part and have practised putting markings into the guided exercises, they should soon feel comfortable adding such markings to parts from the band literature.

## 6.3 Musical Skills

Musical skills are of course important for all instruments, not just percussion. It is expected that musicianship is part of all musical instruction and should be taught to the percussionists as part of the larger group of musicians in the class. The reader is referred to the writings of Edward Lisk (1996) and Robert Garofalo (1976) for suggestions on the development of musical skills for all instruments. What will be discussed here is how these musical considerations pertain specifically to percussionists.

### 6.3.1 Style

The role of the percussion section in conveying the style of a composition is extremely important. Often it is the rhythm patterns played on the percussion instruments that establish the style of the piece. Marches, waltzes and polkas, for instance, are all recognizable by their rhythmic character. However, to help percussionists understand style, it is important for them to be exposed to a wider variety of stylistic experiences. Unfortunately stylistic experiences for the student percussionist have often been rather limited.

Percussion students must be exposed to as many musical styles as possible. This means band class instructional materials contain more than just melodies in a recognizable style; they must also present percussion parts that reflect accurately the style of the exercise. Many times the percussion parts for several exercises are virtually identical. Because there is nothing stylistically unique about them, percussion students fail to fully understand stylistic intentions.

One alternative to this repetitive writing style is to include more pieces from countries and cultures around the world. Ethnic instruments and rhythms are becoming a more significant part of the modern percussionist's responsibility. Such opportunities to understand the

musical style of another country should not be overlooked.

Another alternative is to use more authentic percussion parts for excerpts from the classical repertoire whenever possible. While the melodies for well known classical compositions are often included in band class instructional materials, the percussion parts in these exercises are usually changed so that they bear little resemblance to what the composer wrote. Such modification of the parts change the character of the music and leave students with misconceptions about the intended style. More authentic parts would be better for teaching style.

For instance, the choral melody from Beethoven's Symphony No. 9 could be included with the timpani part from the orchestral score. This is not a complex part, quite within the ability of a first year percussion student. Thus such a part would remain true to the composer's intentions while providing the percussion student with a valuable learning experience.

Yet another alternative to march-like parts is to use the percussion instruments as a means of providing ambience for the music. The style of a piece of music need not always be rhythmically based. Many times the style of music may be conveyed through the timbre, and blending of timbres, of the wide variety of percussions instruments available. Percussion students would gain significant benefit from the inclusion of parts which create a texture for the rest of the ensemble through the use of this variety of sounds. A part as simple as a sustained roll on the suspended cymbal, in connection with a melody in a slow, flowing style, may be an appropriate first step for a beginning student. Beyond this, the exploration of the timbrel qualities of the percussion instruments is virtually limitless.

### 6.3.2 Musical Function of the Instruments

The percussion instruments have traditionally held very specific musical functions within the band. The bass drum for instance has

traditionally played on the strong pulses of the measure, serving the function of time-keeper. The xylophone, on the other hand, has traditionally provided support to the flute line by doubling the melodic material. Likewise the timpani have traditionally been used to provide support to the bass line. Most percussion instruments have similar traditional roles which are indeed important for percussion students to learn and understand. To this end most band class instructional materials have provided quite adequate experiences.

Unfortunately the instructional materials for band class have not always reflected the evolution of function observed in modern works which exploit many more musical possibilities of the percussion instruments. Modern instructional materials should provide students with opportunities to explore the expanding role of the percussion instruments. Experiences which take students beyond traditional percussion writing will help them recognize the musical potential of each instrument. Such experiences should target the develop of new musical possibilities in the areas of rhythm, melody, harmony, and texture.

### Rhythm

Percussion instruments have often functioned in a metronomic fashion, marking the rhythmic pulse of the music. Percussion parts would consist of repetitive rhythms that emphasize the metre of the composition. Such parts can be quite effective in some instances but, by themselves, do little to expand the musical understanding of the student. The consistent repetition of rhythms often leads percussion students to indifference with their parts and a lack of attention to musical interpretation.

Instructional materials for the percussion instruments should provide opportunities for students to explore a wide variety of rhythmic functions. Alternatives to these repetitive percussion parts will give students a better understanding of the musical potential of their instrument and keep them

interested in their progress. This does not mean that the parts for percussion must necessarily become more intricate. Both rhythmically *more* active *and* rhythmically *less* active parts can be beneficial to the musical development of the percussion student.

Rhythmically less active parts have several benefits for the percussion student. For beginners particularly, it is appropriate to have notes placed farther apart to allow time for them to anticipate and evaluate the quality of the tone produced on each note. This attention to tone quality will help students understand the importance of creating *musical sounds* which require thoughtful consideration of the emotive aspects of the music. *Thinking* about the sound that must be produced and *making decisions* about how to produce that sound are important factors in developing musical maturity.

Less active parts may also be more effective in keeping the attention of the students. The repetition of traditional writing can often lead percussion students to distraction because of the similarity from one exercises to another. This often results in thoughtless execution of the part. However, when the task is not limited to tapping the rhythmic pulse of the music, students must follow their part more carefully in order to anticipate changes in rhythm.

It also becomes more important for students to be aware of how their parts integrate with those for other instruments in the ensemble so that the combined parts produce the desired musical effect. With a reduction in the number of notes to be played often comes an increase in the musical importance of each note. Which percussion instrument is chosen and what its function in the music will be, must both be carefully considered when creating such parts.

For instance, several mp tamtam notes within an eight measure exercise will give students a chance to experience the musical effect of a few well-placed notes but keep them attentive because of the uniqueness

of the instrument and the need for consistency in tone and dynamic on each stroke.  A solo bass drum note in a pianissimo passage can have the same benefit.  The student is drawn to the task of creating just the right tone colour placed at precisely the right moment.  The rhythmic challenge for the student is to integrate the part seamlessly with the band, the musical challenge is to match the sound on the instrument with the character of the music.

Example 6.21 Rhythmic Variety - Less Active

Rhythmically more active percussion parts may provide equally valuable learning opportunities for students.  This may be particularly so with instruments that traditionally would not have such complex parts.  A bass drum for instance can offer unique rhythmical excitement to a composition.

Example 6.22 Rhythmic Variety - More Active

Caution must be exercised when developing instructional materials of this nature however. It is only in the *integration* of the percussion instruments into the ensemble that such parts will find value. The percussion parts should not be constructed in isolation from the rest of the score, but must be an integral part of the compositional process. The musical integrity of the instructional material, and therefore its musical value for the student, is dependent upon how the wind and percussion instruments work *together* to create music. The percussion instruments must have equal *musical* importance to the parts for the other instruments in the ensemble.

It would not be adequate to merely add or eliminate notes from a traditional repetitive part. Such parts would offer little musical value to the student because they are not constructed with the musical potential of the instruments in mind. Nor should the percussion parts be simply added to the finished score to give the percussionists something to play. This too has little musical value for the student. Rather the percussion instruments should be an integral part of the development of the musical idea. If the musical idea is complete only with the inclusion of the percussion instruments, the importance of the percussionists as musicians is heightened and the opportunities for musical growth flourish.

Thus band class percussion parts can have significant instructional value provided it is the musical integrity of the parts that is foremost in the compositional process. Such parts will provide percussion students with experiences that are both interesting and technically challenging. More importantly, however, will be the benefits of developing an awareness of the musical possibilities of the instruments. Students will be encouraged to think more broadly about the musical role of each instrument, unrestricted by traditional boundaries.

**Melody and Harmony**

The melodic and harmonic functions of the percussion instruments must be greatly expanded in the instructional material to keep pace with the flourishing musical possibilities seen in contemporary music. In addition to traditional writing, parts for the melodic percussion instruments should include non-traditional roles as well.

Keyboard percussion instruments such as glockenspiel and xylophone are capable of much more than doubling the melody line. Students should have regular opportunities to experience parts with harmonies and counter-melodies as well. Such parts offer quite a different musical experience for a student than playing melodies alone. The musical thinking involved in changing roles will greatly enhance their musical understanding.

Multiphonic writing will also develop a student's musical skills. Keyboard percussion instruments may be played with up to four different pitches at once. Simple multiphonic exercises involving the use of two mallets may be introduced early in the band class by adding a two voice chordal accompaniment part (perhaps in half notes) to the melody of the other instruments.

Example 6.23 Multiphonic Accompaniment - Chordal

In time students will learn to add to the number of mallets held at once, making possible the addition of more voices. Such opportunities will not only provide new and interesting material for the keyboard percussionist, it will also help them understand the function of harmony. In a similar way, timpani parts that include simple melodic motifs and two part harmony are useful ways of developing a broader musical understanding.

Ostinato figures require another entirely different way of thinking about the role of the instruments. The combination of pitches which form the harmonic content, combined with the rhythmic pattern in which the notes are executed, provide students with a challenging new musical experience. An example might be a similar exercise to the one above but with the bells playing an ostinato part using quarter notes in alternating right and left hands instead of simultaneously struck notes.



Example 6.24 Ostinato Accompaniment

More advanced students will benefit from experiencing independent melodic lines and complete accompaniments to other instrumentalists in the ensemble. These experiences are rarely included in band class instructional materials, in favour of parts that double the melody. However, the mallet

percussion instruments are much more capable of soloistic and accompaniment roles than many instructional designers have shown. The predominant presence of homophonic wind instruments in the band class may make it tempting for designers to think of the percussion instruments only in terms of their homophonic qualities. However, the keyboard percussion instruments also posses considerable polyphonic capabilities, similar to the piano. Thus designers of instructional materials for band class should rely more on the role of the piano as a model of soloistic and accompaniment capabilities for developing the percussion parts, so that students will develop a more comprehensive approach to playing the keyboard percussion instruments.

### Texture

Each percussion instrument is capable of producing a wide spectrum of sounds. These sounds offer much potential for creating musical texture. To help students understand textural capabilities of the instruments they must be guided through experiences that allow them to explore the variety of sound colours that each instrument can produce.

Early exercises in the instructional materials for band class that are intended to focus on the textural qualities of the percussion instruments should consciously be constructed to limit the amount of rhythmic and melodic material. If the rhythms or melodic lines are too challenging, they may draw the students' attention away from the focus of exploring sound colours. Limiting these elements will reduce the cognitive load on students, allowing them to focus more intently on the sound colour of the instrument.

The purpose of such instruction should always be to help students gain an appreciation for the musical capabilities of the instruments. They must be guided to an understanding that each instrument does not produce just *one* sound, but *many* sounds. Students should come to an

understanding that all of these sounds are useful given the appropriate context. The sound created must be determined by the musical context of the passage. The challenge for students will be to create the sound most appropriate to the music.

The two most basic tools for modifying the sound colour of the percussion instruments will be the *choice of playing spot* and *mallet selection*. Instructional materials should be designed in such a way that percussion students learn to make musical decisions about how to manipulate these factors to produce the sounds they want. Initial exercises may begin by making suggestions for mallet choices and playing spots, but these suggestions will only be helpful if they are accompanied by a description of what the resultant sound should be. The intent of the exercise should be to help students learn to associate certain modifications with specific outcomes in sound.

Teaching students to make such musical decisions should be done using musical language. Musical descriptions of the sound desired will help students learn to make decisions about what modifications may be utilized to obtain certain musical outcomes. It might be best for instance to indicate: *hard mallets / harsh, brittle sound*, as opposed to indicating the use of hard mallets alone. The latter gives no guidance about the desired musical outcome of such a decision and thus, is not helpful in guiding percussion students learn to make these decisions.

Once students are acquainted with the process of choosing mallets and playing spots to achieve a particular musical outcome, part indications should be limited to a musical description of the sound desired. Thus, at a more advanced level the above indication would read: *harsh, brittle sound*. This way students are free to grow as decision-makers, creating the sounds that they feel are indicative of the directions given.

There are three levels of development that may be helpful in guiding

students through the exploration of texture. The first level is the use of single, isolated sounds on the instruments. An elementary level of technique is sufficient to produce these sounds, with care taken to produce a full tone. This would be particularly useful on instruments that have a characteristically long sustain such as cymbals and gongs (although not limited to these instruments). Exercises would consist of sustained tones from instruments which are carefully chosen to enhance the character of the melody in the wind parts.

The second level of development would involve the use of sustained rolls on the instruments. A greater degree of technical ability is required to execute such passages so these should be introduced at a point when such ability has been achieved. The objective of the exercises would be to create a sound base on which the melodic material is built. Again, it is the *musical character* of the passage that must determine the instrument chosen, the type of roll, the playing spot and the choice of mallets.

The third level of development would incorporate the use of ostinato figures as a textural background for the musical material from the wind instruments. These ostinato figures may be rhythmic, melodic or harmonic in nature. Of course the non-melodic percussion instruments would be limited to the use of rhythmic ostinatos while the melodic percussion could utilize either rhythmic, melodic or harmonic material. However, initial exercises on the melodic percussion instruments should use either rhythmic or melodic material but not both. This way the student is able to focus on only one variable at a time. Subsequent exercises would combine more variables to offer the student a greater challenge.

### 6.3.3 Phrasing and Expression

A third aspect of musical skills that must be addressed by the band class instructional materials is the development of phrasing and expression. Percussion students are often neglected in this area because of the

limitations of their instruments. Yet with proper direction, percussion students can learn to be sensitive musicians, exhibiting great capacity for expressing themselves through the music they play.

### Dynamic Shading and Rhythmic Placement

The use of varying dynamics and manipulation of the rhythmic placement of notes are used by all musicians to enhance the musical quality of the phrase. These factors are particularly important for phrasing on non-pitched percussion instruments. The lack of a melodic line to aid the listener's understanding of the musical interpretation means that percussionists must pay very careful attention to how dynamics and rhythm influence the perception of their musical idea. Cook (1988, p. 93) describes how subtle increases in dynamics and rhythmic anticipation can help lead into climactic notes in the phrase.

Edward Lisk (1996) has developed a more methodical approach to teaching phrasing with specific attention to rhythmic placement of the notes. Such methods are recommended for inclusion in a curriculum for band. While his approach is melodic in nature and would be most beneficial through study on the keyboard percussion instruments, the principles should also be applied to the non-pitched percussion instruments as well, since it is the aim of quality music education to develop percussionists who can play musically on *all* percussion instruments.

### Intensity

Intensity is described by Lisk (1996) as an important aspect of musical development that includes more than merely playing louder (p. 50). His description of tonal shading that is derived from thinking and feeling more intensely is more helpful for wind players than for percussionists, yet there is some application for percussion. Certainly slight modifications in grip and stroke can be induced by thinking of increased tension, which will

modify the sound produced.

Perhaps even more useful for creating intensity is manipulating the speed of the roll. Students will have been encouraged to find the roll speed that is most suitable for each instrument, adjusting the speed of the roll with the speed of vibration of the instrument, so that the most continuous, full sound is produced. While this optimum roll speed is the aim of developing a full, resonant sound, roll speed may also be manipulated to convey the intensity of the music. Increased roll speed heightens the intensity and decreased roll speed releases tension.

### Phrase Endings

Endings of phrases are difficult to teach. Lisk (1996) discourages the use of the term *releasing the note* in favour of describing the *beginning of silence*. This movement from sound to silence is the key to musical phrase endings. The aim is to move seamlessly into silence. While the focus of the Lisk discussion is the application for wind players, percussionists may find this information useful as well. Two implications can readily be seen for the percussionist who wishes to create musical phrase endings.

First, the manner in which the rolls are ended will determine the degree to which the sound moves seamlessly into silence. Percussion students are often tempted to end every roll with a pronounced concluding tap. This, however is not always suitable to the music. Many times it is more appropriate to end the roll *softly*, with a slight taper similar to that which may be produced on the wind instruments. Percussion students must be encouraged to develop this *soft* note ending in addition to the more abrupt endings they so commonly execute.

Secondly, many of the percussion instruments have a sustained tone. The sound must often be deliberately stopped by the performer. Percussionists must muffle the instruments to create silence at the

appropriate times. If we adhere to Lisk's description of the *movement to silence*, then *the way* in which these instruments are muffled becomes an important factor in our musical interpretation.

Creating silence on the instruments is as important to the music as the production of the sound itself. Percussion students must learn to match the taper of the phrase with that of the wind instruments. It is not always appropriate to stop the sound abruptly, rather the movement to silence must be taken into consideration. Students must pay careful attention to the degree of taper to the end of the phrase. They must gain both the technical skills and the musical judgement to play with sensitivity to the music. Therefore, instructional materials should include exercises which demand such maturity from the student.

### Sticking Patterns

The choice of sticking patterns is critical to the development of the musical phrase. While it is best to start percussion students with a sticking method that develops muscle control and endurance evenly in each hand, these kinds of sticking practices may hinder an otherwise musical performance because, as much as we try to create a consistent sound with each stick, the two will never sound *exactly* the same. These slight tonal variations from each stick will impose a particular feel to the phrase produced, which may or may not coincide with the desired nuance. For instance, a rhythm in a triplet metre may still tend to sound duple if it is performed with an alternating two-stick pattern. A more musical sticking of this passage may be a single stroke with one stick and two strokes with the other stick.



Example 6.25 Sticking Patterns - Enhancing Metre

Teaching percussion students to make good sticking choices will entail providing experiences that allow them to understand how certain sticking patterns can enhance the phrase. It may be helpful for the first sticking exercises to be structured around enhancing metre as in the example above. Such sticking patterns are relatively easy to learn and students should have little difficulty understanding how the patterns are dependent on the music.

The phrasing of repeated rhythmic motifs may also be aided by well-planned sticking patterns. Such phrases generally have a more pleasing sound when each occurrence of the motif sounds the same as the previous one. The principle is to use the same sticking pattern for each occurrence of the motif in order to maintain consistent nuances in sound. In the following example the first measure shows how the motif would change in sound if an alternating sticking were used, while the second measure shows how consistency in sound is maintained when the same sticking pattern is used for each occurrence of the motif.



L   R L R   L   R   L R L   R          L   R L R   R   L   R L R   R

Example 6.26 Sticking Patterns - Consistent Motivic Sound

Similarly, there are times when slow, repeated notes must sound identical. In such instances it would be appropriate (provided the technical challenge is not too great) to play all notes with one hand to ensure identical sound.

At still other times attention to sticking patterns may enhance the phrase by making accommodations for ornamental figures. It is often when the figure is difficult to place within the line that the phrase suffers from instability. Carefully choosing stickings that allow the ornamental figure to

be played with the greatest clarity can help create a more fluid sounding phrase. Notice in example 6.27 how the last sixteenth note of the first measure is played by the left hand, then followed immediately by the double stroke of the ruff also in the left hand. This makes the ruff very difficult to play because of the rapid change from the tap to the double stroke technique. The sticking in example 6.28 alleviates this problem by introducing a double at the beginning of the sixteenth notes (when this is more easily accomplished) thus putting the double strokes of the ruff between two right hand taps.



Example 6.27 Sticking Patterns - Ornamental Problems



Example 6.28 Sticking Patterns - Facilitating Ornaments

Perhaps the most important sticking considerations are those that enhance the natural pulse of the music. This is particularly true for the keyboard percussion instruments. It is often necessary to use double sticking to accommodate the movement from one note to another. However, this sometimes produces a natural emphasis on what should be a weak beat. Stickings for such passages should be carefully considered to allow for ease of movement without interrupting the flow of the phrase.

For example, consider Pearson's (1993) sticking in the following exercise:



R L R L R R L R L R R L R L R

Example 6.29 Sticking Patterns - Phrasing Problems

The right hand double sticking in this exercise may produce slightly less emphasis on beats three and one because the right hand must move too quickly to allow for a proper preparation for a full stroke. The emphasis, however, would indeed be more appropriately be put on beat 3 and beat 1. Changing the sticking pattern to two lefts on beat 2 and beat 4 would still work out nicely for beginning each motif with the right hand but would also help lead into the main pulses by allowing the right hand to play the pulse without having to move too quickly from the previous note.



R L R L L R L R L L R L R L R

Example 6.30 Sticking Patterns - Enhancing Phrase

**Articulation and Tone Quality**

Other expressive qualities of the music may be explored through choices made regarding the type of stroke used, playing spot, and mallet selection. These elements were dealt with in chapter five. However, it may be helpful to briefly explain their importance here.

The type of stroke employed will alter the articulate quality of the note. Timpani and bass drum are particularly expressive instruments in this regard. Minor changes in grip and mallet manipulation can produce

significant variations from a full, resonant tone to a crisp, pointed attack. The task of the instructional materials is to help students understand when a particular stroke type is appropriate, and to offer opportunities for students to experience these parts. Articulation markings are probably the best way to indicate such musical directions. Thus, instructional materials may be improved by making more extensive use of tenuto markings and staccato markings to indicate the type of articulation desired.

Articulation and tone quality may also be altered by changing the playing spot and using different mallets. It may be generalized that the closer one comes to striking the instrument at the point of greatest vibration, the more resonant the tone quality becomes. Coincidentally, the closer one comes to striking the instrument at the point of least vibration, the more articulate the attack becomes. Likewise, the weight of a mallet has considerable command over the resonance produced while the hardness of the mallet determines the articulate quality of the sound.

Percussion students must come to an understanding of these concepts so that they may learn to use them in making more musical decisions regarding playing spot and mallet selection. Therefore it is important for instructional materials to include information regarding the nature of such modifications, and experiences that help students identify their usefulness. As mentioned above, early experiences might include suggestions for playing spots and mallet selection with an explanation of *why* these choices would enhance the musical character of the exercise. Later experiences might describe only the desired sound thus giving the student the opportunity to make the decisions about how to produce that sound.

For instance, an early bass drum exercise may suggest: *thin, crisp sound / hard mallets near the rim*. Another exercise may suggest: *deep, resonant sound / large, heavy mallet near the centre*. Thus students would soon learn to equate certain playing spots and mallet choices with certain

musical outcomes. Later exercises might then indicate only, *deep, resonant sound*, leaving the student to make the decision about how to produce it. This is important for student growth because, while the student may need some consultation with the teacher at times, the musical decisions are no longer left entirely to the teacher. This leads the student in the direction of becoming more musically independent.

# Chapter 7

## MIXED INSTRUMENT INSTRUCTION

Chapters five and six have developed teaching strategies which address the challenges of teaching the percussion instruments specifically. In this chapter the development of strategies which target the unique challenge of teaching the percussion instruments in the context of the band class is addressed. This discussion arises from the suggestion in chapter four that such instruction be developed on the premise that the most important goal for the band class is to develop *musicians*, rather than *technicians*.

One problem of the band class is the challenge of teaching the unlike instruments of wind and percussion as a homogeneous group. The solution has often been to address one group or the other. However, with musical development as the focus of instructional materials, teachers will be able to direct their instruction to *all* students in the class on a more consistent basis. This inclusive type of group instruction will be more relevant for percussion students because the instruction on their instruments will correspond to the primary focus of instruction for the entire class; the development of musical maturity. Instead of percussion materials consisting of an independent curriculum, strategies for teaching percussion will be integrated with the strategies for teaching winds. The resultant materials will contain a *synthesis of teaching strategies* which address the needs of all band students as a collective.

Implementation of this synthesis of strategies will have a significant impact on the design of instructional materials used in the band class.

Instructional designers will need to reevaluate all aspects of band class instruction including the *content* of the materials, the *structure* of the presentation of these materials, the *sequence* of instruction, and the *pacing* of instruction.

## 7.1 Content of Instructional Materials

Any model for developing materials that teach unlike instruments together must first address the issue of content. The content of the instructional materials consists of the concepts and skills that are presented to the student. It represents *what* the student will learn. It is important to ensure that the content of the band class instructional materials meets the objective of developing the musical maturity of every student regardless of the instrument they play.

The content of a band class method book must address the technical requirements of all individual instruments while accommodating for instruction as a group. It should bring together the best strategies for teaching each instrument in such a way that they form an integrated and consistent approach to class instruction. The content must also be comprehensive; including all concepts and skills appropriate for each instrument *and* all the concepts and skills important for performing as part of a group of musicians. In addition, instructional materials should implement content which targets the specific needs of each instrument while ensuring that all band students grow together.

If musicianship is to be the foundation for developing a content for band class instruction, designers must first consider what musicians need to know. In this regard most band class instructional materials have been quite meticulous in the attempt to include concepts and skills that all musicians should learn. The following figure lists many of the most essential elements typically included in a curriculum for band class.

```
Instrument assembly, care and maintenance
Posture and stance
Tone production
Intonation
Music appreciation (historical and cultural contexts)
Music reading (notes and rhythms)
Music theory (harmony, form, style...)
Musical and technical skills
        scales and other technical patterns
        dynamics
        articulations
        phrasing
Musical terms and signs
        time signatures and key signatures
        staff markings (clef signs, bar lines, repeat markings)
        tempo and dynamic markings
        expression and articulation markings
```

Table 7.1 Sample Content of a Band Class

Such a list may well be used as a model for developing a well synthesized approach to band class instruction. Many of these concepts and skills may be readily dealt with in the context of group instruction since they are easily recognized as *common* to all. Some concepts, particularly technical elements, are more instrument *specific*. It is the marriage of these two types of content, the common and the specific, that is important in designing a well *synthesized* approach.

### 7.1.1 Concepts Common to All Instruments

These elements should form the basis for most instruction on all band instruments. However, many of these items are omitted from the instruction for percussion. The most notable omissions include tone production, intonation, articulations and phrasing. The application of these elements to percussion may involve a modification of materials to address the specific requirements of the percussion instruments. Nevertheless such

elements are an important part of the musical education of percussion students. Without the inclusion of these concepts, percussion students will not receive an adequate musical education.

The percussion parts for many band class methods are developed seemingly in isolation from the wind parts. It appears, in many cases, that the wind instrument requirements have formed the basis for the content of the instructional materials and that the percussion parts were created independently, then added to the existing wind parts.

The problem may further be complicated by the historical practice of teaching percussion by rote. This copying of the instructor's demonstration, while immensely valuable in developing visual and aural concepts of playing, has contributed little to the development of quality instructional materials. Even though the field of percussion education has developed at an incredible rate, particularly in recent years, much of our materials still rest heavily on a rote style of teaching. Thus percussion instructional materials of all kinds have generally not included terms such as "tone production" even though the concept is not unfamiliar to most percussion teachers. Non-percussion specialists studying these materials might well assume that such elements are not applicable to percussion education and are therefore irrelevant for the materials presented to them in a band class.

Whatever the cause for such omissions, it is important that all these musical concepts and skills be presented in the band class instructional materials for percussion. It must be emphasized that percussionists should be considered, first and foremost, musicians who express themselves musically through the percussion instruments. Therefore, any concepts or skills that are deemed necessary for the musician to develop must also be part of the instruction for percussion students.

The development of a synthesis of strategies would require that we look for some way of teaching these concepts and skills to all band

students together.  The following are two examples of elements which are almost entirely omitted from the percussionist's class instructional materials, yet hold a place of extreme importance for any musical percussionist.

### Tone Production

Many instrumental music educators may well argue that development of a good concept of tone production is one of the most important aspects of musical training.  To this end the instructional materials for band classes have been designed to develop strategies for the wind players.  However, the mention of tone production in the instruction for percussion has been, it would seem, carefully avoided.  Most band class methods make no mention of it at all.

To include percussion students in class instruction, the concept of tone production must also be prominent in their training.  Chapter five suggested how the concept of tone production relates to the percussion instruments.  Concepts involving free vibration and natural rebound should be present in the band class percussion book as the means to achieving good tone quality.

Incorporating such ideas into the instruction for winds involves pointing out the connection between the vibration of the reed or the lips, with the vibration of the drum head or cymbal.  Such connections will help teachers address the entire class, while helping students better understand the principles of tone production on their respective instruments.

### Intonation

The concept of intonation, while often the focus of much instruction for the wind instrumentalists, is seldom introduced to percussion students through the band class methods. It is true that for most of the percussion instruments the concept of intonation is irrelevant because the instruments

are either non-pitched (such as drums and cymbals) or they are not intended to be tuned by the performer (such as xylophone and bells). However, even beginning lessons on timpani must include the concept of intonation.

While the timpani are the only standard percussion instruments which must be tuned, this does not diminish the importance of *learning* to tune. Unfortunately the subject does not often come up until it is time for the percussionist to execute the first timpani part. It is then that the director finds that their young timpanists seem incapable of tuning the drums.

The need for timpanists to have a well developed sense of intonation is without question, yet the means to accomplish this has not been addressed adequately. The cause of this problem is most likely a lack of attention to intonation concepts early in the percussion students studies.

Instructional materials should use the timpani to provide opportunities for percussion students to develop such skills *early* in their training, and reinforce these skills *often* throughout their studies. These skills must be developed in the same systematic fashion as with any of the other skills. Daily exercises involving tuning the wind instrument must take advantage of the opportunity to include the percussionists in developing tuning concepts and skills as well.

### 7.1.2 Concepts Specific to Certain Instruments

Because the percussion instruments and wind instruments are fundamentally different technically, it is necessary for band class methods to include concepts and skills that are specific to one category of instruments which may have little relevance for other instruments. Instruction for clarinets, for instance, may devote numerous exercises to helping students learn to play "over the break", when this has no relevance for the percussion instruments. However, these exercises are not void of

valuable learning experiences for other instrumentalists. While the focus of the exercise may be to address a specific concept or skill on one instrument, other instruments are often given parts which reinforce concepts or skills they were taught earlier.

This same process must be in place for the percussion instruments when it is time to develop concepts and skills on the percussion instruments which have little relevance for the wind instrument players. Special exercises must be developed to address the particular needs of the percussion instruments. In this way important *percussion specific* concepts and skills will not be overlooked. Including such percussion specific concepts need not be at the expense of the non-percussion students, however. These exercises may also be used as opportunities to reinforce concepts and skills on the wind instruments that have already been introduced.

Some of the more significant percussion specific instruction would include: rolls (sustaining sounds), muffling (termination of sounds), flams and ruffs (grace notes or musical ornaments), double stops and multiple mallet technique (polyphonic capabilities), organizational skills.

### Rolls

Rolls on the percussion instruments must be introduced specifically because no other instrument in the band class must develop such skills. There is, however, a connection to the wind instruments in the function of the roll. Sounds are sustained on the wind instruments as long as the air is flowing; when the air stops the sound stops. Conversely, percussion instruments must generate a rapid reiteration of notes to create the *impression* of a sustained sound. Thus it is important for specific roll exercises to be included in the percussion instructional materials.

### Muffling

The termination of sounds on percussion instruments, while conceptually very similar to the termination of sounds on the winds (stopping the vibration), is executed in a manner quite unlike wind instruments. Percussion instruments must be touched by the performer to stop the vibration. Because of this additional action, percussion students must be given the opportunity to practice its execution.

### Ornaments

Ornamental figures, such as flams and ruffs are probably more common in percussion music and grace notes in wind music. In addition, grace notes appear earlier in percussion music than in wind music. Therefore these techniques must be introduced early to percussion students.

### Polyphonic Techniques

Polyphonic techniques are generally not as common on wind instruments as for percussion instrument. However, the common use of two notes simultaneously, or the development of multiple mallet techniques, make these skills an important part of a percussion student's training. Therefore these techniques must be addressed specifically in the mallet instrument materials.

### Organizational Skills

Organizational skills do not have the same significance for wind instruments as for percussionists. Chapter six detailed much of the significance of these skills for the percussionist. Because these skills are so important in the training of percussion students, they must also be specifically developed in the band class percussion materials.

## 7.2 Structure of the Instructional Presentation

Many band class teachers find it necessary to spend time outside of the band class to teach the percussionists. This is often the result of having materials that do not adequately address the *presentation* of concepts and skills to the student. Teachers find that to ensure consistent understanding and development in their percussion students, they need supplemental materials and additional teaching time to explain more fully the concepts and skills introduced in the band class method books. Admittedly, percussionists may always require a little extra attention, due to the diverse nature of the instruments. However, it should be the aim of instructional designers to present a more comprehensive package of materials for the percussion students and thus minimize the amount of time required outside of class.

One of the problems with most materials is a very narrow approach to the design of the percussion curriculum. It seems that the focus of percussion instruction is often the development of rhythmic skills, to the exclusion of other equally important aspects of musicianship. Band class instructional materials are often structured to present new concepts and skills to the wind instruments while only more rhythmic exercises are given to the percussionists. At best the percussion students can expect a simplified explanation of the concept and skills the winds will study. While rhythmic development is important, percussion students require a much broader curriculum.

These materials must be restructured to provide more inclusive instruction for the percussionists. Improving instructional materials through the restructuring of the presentation will include: (1) structuring the presentation of materials for teaching common concepts together, and (2) structuring the presentation of materials to make the most effective use of resources.

### 7.2.1 Structuring for Common Concepts

The *presentation* of the content must be structured to address the entire class at once. The instructional materials used for teaching percussionists and wind instrumentalists together often work to the disadvantage of the teacher by presenting different concepts to the percussionists than to the wind players even when these concepts are common to both. This requires that teachers divide their instruction time between the two groups, teaching one concept to the winds and another concept to the percussion. Thus, these concepts must often be taught twice since both winds and percussion must learn them.

Even the very first exercises in many band methods oblige the teacher to divide their instruction between the percussionists and the wind players. For instance, while the wind players are playing whole notes and focussing on tone production, the percussionists are given quarter notes and asked to focus on playing in rhythm. This presents several problems for the teacher in search of efficient instruction. First, it means the teacher must give different instructions to the winds and the percussion regarding rhythms they will be playing before the entire class can begin together. Secondly there is no fundamental concept for the entire class to focus on. The teacher must devote part of the instruction time to explaining tone production concepts to the winds and part of the instruction time to explaining time keeping concepts to the percussionists. Consequently, the wind instrument students will tend to tune out the information given to the percussionists because it has little connection with what they are doing; likewise the percussion students will tune out the instructions given to the wind players. Thus the teacher will have to teach these same concepts again: keeping time to the winds, tone production for the percussionists.

A more efficient method of instruction would seek to teach those things that are common to all instrumentalists in the same lesson. To do this, the structure of the instructional materials must allow the instructor to

introduce one concept at a time, presenting it to the entire class, then applying this concept to specific instruments. Thus instruction is more efficient because concepts need only be presented once, then reinforced and expanded as students develop. In addition, the understanding of the concept would increase since clarification of the concept occurs with application to each instrument, resulting in more effective instruction.

For instance, by focussing on tone production for each instrument in the first lessons, the teacher can involve all the students in the lesson at the same time. While each instrument must be addressed in turn, this can actually be an asset to the class. Learning how full sounds are produced by students on the wind instruments will enhance the percussion students' understanding of how full sounds are produced on their own instruments.

The problem that has existed in most instructional materials is that many concepts of significance for the winds have had apparently little connection with the percussion. The development of such concepts as articulation, which form a large part of the instruction for winds, have received little corresponding attention. Yet such concepts are an important part of every musician's training. To design band class instructional materials that ensure musical growth for all band students, attempts must be made to determine what possible points of connection can be found for accommodating the teaching of all students together.

The following is a list of some concepts typically found in wind instrument instructional materials. A corresponding application to percussion instruments is listed beside each, indicating how such concepts may be described when addressing the entire class. Some of these concepts, like tone production, may seem apparent enough, yet it is surprising to find that most band class percussion books do not make this obvious connection and thus miss the opportunity for valuable group instruction. Others, such as breath marks or alternate fingerings may not seem obvious at first, yet may yield some interesting teaching

| wind instruments | percussion |
|---|---|
| tone production (quality of tone) | tone production (quality of tone) |
| intonation | intonation (tuning timpani) |
| embouchure | grip |
| breathing | stroke / bounce |
| vibration of the reed / lips | vibration of the instrument |
| slurs | connected rolls |
| tonguing | repeated stokes |
| staccato | muffled strokes / staccato stroke |
| accents - faster air | accents - higher bounce |
| phrase | phrase |
| breath mark | breath mark |
| alternate fingering combinations | alternate sticking combinations |
| scales | rudiments and scales |

Table 7.2 Concept Comparisons

opportunities. If percussion students are ultimately to grow as *musicians* in equal measure with the rest of the band class, such concepts must be built into the materials for class instruction.

### 7.2.2 Structuring for Effective Use of Resources

Concepts that are intended for the entire class may not be fully understood by the percussion students without a structure that makes effective use of their instruments to illustrate these concepts. Careful choice of the instrument that will be used to develop these concepts is of particular importance in the design of effective instructional materials.

Furthermore, these instruments must be used in ways that effectively highlight the concepts to be learned. The examples and exercises that appear in the band class percussion books must target precisely the learning objectives for that exercise. Percussion students will gain greatest understanding if (1) the instruments possess the characteristics to adequately demonstrate the concepts and (2) the exercises for practice utilize relevant examples.

Following are several important concepts for band class instruction that have often been problematic for percussion students. They are presented here as examples of how proper use of resources can promote a better understanding of these concepts.

### Fermatas

Fermatas are typically introduced to the band class as notes that are sustained until the conductor indicates to stop the sound. The wind players learn that they must continue the flow of air to sustain the sound and deliberately stop the air at the moment the conductor indicates silence. Unfortunately the percussion part for such exercises often consists of a single tap on the snare drum. The instruction to sustain the sound until directed to stop is meaningless in this case because the sound from the snare drum dissipates almost instantly; students have no control over the length of time the sound will linger. This apparent contradiction may cause considerable confusion for students. Thus the experience is ineffective in helping students develop a clear understanding of the concept of the fermata.

Such concepts can be effectively dealt with, however, if percussion instruments capable of a longer sustained sound are used. A sustained sound on the bass drum, triangle or the cymbal would help students understand that the sound should be allowed to continue until the conductor indicates silence. Students would learn that the instruments

should ring freely until a *deliberate* effort is made to stop the sound (muffling the instrument). This *intentional* stopping of the sound will make the experience meaningful for students by permitting them to follow precisely the directions of the conductor. Furthermore, such restructuring of the presentation links the instruction for percussion with the instruction for the winds. The execution of the fermata may now be described in a similar way for all students; the sound is allowed to sustain until the teacher indicates that *all* students must stop the sound.

Later in the students' development, once a greater level of technical skill has been acquired, fermatas may be observed on instruments with sounds of short duration through employment of the roll to sustain the sound. In either case, whether using instruments of longer sound duration or employing rolls to sustain a sound, it is the experience of creating sustained sound for a specific time duration which will help students understand the concept of the fermata.

### Dynamics

The concepts of crescendo and decrescendo might best be taught through the employment of sustained rolls. For instance, if the wind instrument students are playing crescendos over sustained notes, a comparable experience for the percussion students would be crescendos over sustained rolls. The increase in energy output required to play louder is more discernable while playing a roll because of the gradual increase in stick height over many strokes.

The beginning student may be helped further if these exercises are played on a suspended cymbal because this instrument is capable of producing these sounds with minimal technical demand as opposed to the snare drum which demands considerable technical development to execute sustained crescendos and decrescendos. As technical ability develops, students may be given exercises that challenge them to execute sustained

crescendos and decrescendos on instruments for which this is more difficult. This way percussion students experience consistent and continuous growth and instruction remains consistent for winds and percussion alike.

### Changes in Tempo

In contrast to using sustained notes to introduce concepts involving dynamic contrasts, concepts involving changes in tempo, such as accelerando or ritardando, would be ineffectively introduced with sustained notes. Consider, for example, an exercise introducing ritardando which included a percussion part consisting of a series of whole notes on the cymbal. Such a part would be relatively meaningless to percussion students since it provides no opportunity for them to experience the slowing of the tempo. Although the percussionists may *hear* the tempo slowing, they are not required to *execute* this slowing of tempo themselves and thus derive no benefit from the exercise.

Restructuring the presentation of this concept to be more effective would involve creating parts that require proper *execution* of the ritardando. Simple, repetitive rhythms would be appropriate, perhaps matching the rhythms of the wind instruments. This would allow both percussion students and teachers to evaluate the accuracy of the students' execution of the exercise.

### Articulations

Concepts of articulation are also often missing from the instructional materials for percussion. It seems to have been assumed by some that such concepts are not applicable to the percussion instruments. Yet the ability to execute articulations is indeed an important part of the musical development of every percussionist.

The most often used articulation markings in percussion music are

accents, staccatos and slurs. The least problematic of these are accents. Accent markings have been used extensively on percussion instruments, perhaps because of their ability to make extreme and abrupt changes in dynamic. Instructional materials have had little difficulty introducing the *concept* of accents to students, even if the *skill development* exercises have been lacking (the reader is referred back to Chapter six for a discussion on developing dynamic control).

With staccato markings, however, it has usually been the *concept* of playing staccato which has been neglected. The conceptual understanding of how to play staccato has received little attention in percussion instruction. Perhaps this is because of the apparent difficulty in conveying the concept of *detached* notes to students playing instruments that are struck. Often, if the concept is introduced at all, percussion students are instructed to simply *think* of the note as being short. Thus while this articulation may appear in the music periodically, percussion students do not necessarily know how to execute it properly.

Slurs, on the other hand, are not often associated with percussion instruments in the instructional materials. The term usually refers to non-tongued notes on the wind instruments. Nonetheless, it is the same marking found in wind music which is used in percussion music, usually in conjunction with rolls and most often referred to as a *tie*, indicating a roll *connected* to a concluding tap (as opposed to a *separation* between the roll and tap). The resultant sound, however, more closely resembles a slur than a tie, particularly when it is used on the keyboard instruments or timpani, where the concluding tap is not only audible but often also a different pitch than the roll. Unfortunately such valuable comparisons are typically not underscored for the students.

Clearly the presentation of these articulation concepts must be re-evaluated in order to provide students with more meaningful instruction. More thought must be devoted to the development of teaching strategies

that will more effectively include the percussionists in such instruction. It will be important to determine what properties of the percussion instruments are most suited to helping students develop a clear understanding of the concepts.

The concept of staccato playing, for instance, may be more easily understood if percussion instruments of longer sustain were used to introduce it. It may at first seem erroneous to use *longer* sustaining instruments to execute *short* notes, however, it is precisely because they tend to sustain longer that instruments such as triangle or cymbal are particularly helpful in teaching students to *make* short sounds. Such instruments will help percussion students understand the fact that staccato means detached, or shorter in duration, because of the need to *intentionally* stop the sound, just as the wind instruments will be intentionally stopping the flow of air.

The benefits of such instruction are two-fold. First, the concept is more understandable for the student because they must make the effort to *create* the sound of staccato, not simply *think* of that note as staccato. Secondly the teacher can address the entire class because the terminology used to teach staccato on the triangle is linked to the terminology used for teaching the winds; winds must *stop* the flow of air while percussion must *stop* the vibration of the instrument. Thus the concept of staccato as an indication of a short note will be meaningful for all students in the class. Furthermore, the demonstration of its execution on both wind and percussion instruments will clarify the concept for all students. Coincidentally, such exercises will help develop muffling skills (also a much neglected topic in most band class methods).

The more difficult skill of producing a staccato sound on snare drum may be more easily approached once these initial experiences have been addressed because now the student has a *concept* of what staccato is. While the technique may be quite different, the concept remains the same.

The understanding of *creating* a short note, developed with instruments of longer duration, will help students understand the *intent* of technical manipulations to create short notes on instruments with short duration.

The concept of slurs may be most effectively taught through the use of rolls connected to other notes or rolls. Just as the wind instrumentalists are instructed to connect the notes with an uninterrupted air stream, the percussionists may be instructed to connect the notes with an uninterrupted roll. This would be most applicable on keyboard percussion instruments or timpani, however, it would also be helpful on snare drum in learning to connect the roll to a concluding tap.

This concept of moving seamlessly to the next note is often a difficult one for percussion students to develop. Their difficulty usually comes from either a lack of understanding of how to execute it, or because they have not been given the opportunity to practice it sufficiently. Such development may be more effectively and efficiently accomplished if the percussionists are included in the instructions on slurring given to the class. Instruction which describes accurately the method of executing the slur on both wind and percussion instruments would more clearly develop a consistent understanding of the concept for all students. Consequently, exercises could then be included for the percussion instruments which closely relate to those for the winds thus providing more opportunities for the percussion students to develop these concepts with the wind students.

## 7.3 Sequence of Instruction

The concept of proper sequencing was noted in Chapter six as an important aspect to skill development on the percussion instruments. One must also consider appropriate sequencing when incorporating percussion instruction into band class instructional materials as well. While most aspects of percussion instruction have been dealt with in the previous chapter, there are some specific considerations regarding the sequencing of

group instruction that should be addressed.

The focus of much class instruction should be the development of good ensemble skills. Students must learn not only to play their instruments well, but to play well with other musicians also. Such skills involve listening carefully for other parts and fitting all parts together to form a unified whole. Most band class methods accommodate for this, even from the beginning lessons, by creating percussion parts which have an accompaniment role. In this way a simple ensemble sound is created between the melody in the wind instruments and the rhythmic accompaniment in the percussion.

There are however several inherent problems with beginning instruction in this manner; (1) it *assumes* that the percussion students are capable of playing rhythmically independent parts from the rest of the class, (2) it creates a *dichotomy* between teaching concepts of unison playing to the winds and teaching concepts of rhythmic independence to the percussion, and (3) it places great *stress* on the percussion students who are typically singled out to be the only persons in the class to play a particular rhythm. What is particularly troublesome is that, firstly, no student should be expected to have command of concepts and skills that have not been taught. One of the goals of band class instruction should be to *teach* the concept of musical independence, not simply assume that it will happen. Secondly, as mentioned in chapter four, it is much better strategy to teach the same concepts at the same time, thus addressing the entire class at once and helping students focus their attention on one matter at a time. Thirdly, it is dangerous to place too great a responsibility on students who have not been prepared for it. It is difficult enough for a *group* of students to play a rhythmically independent line, save giving that responsibility to one person alone.

A more appropriate sequence of instruction for developing ensemble skills would be to begin with all students playing in unison, then to

progress through ever higher levels of independence. This sequence is in fact often applied to the instruction for winds; all wind instruments begin with melodies in unison, then once they have gained some experience and confidence simple duets are introduced, then trios and so on. This same principle should also be applied to the instruction materials for percussion.

To more effectively help percussion students develop musical independence, it may be more appropriate to have beginning exercises involve the percussionists in unison *with* the winds, melodically *and* rhythmically. In these exercises, when the rhythms are very simple, the focus of instruction may be the production of a good tone. Later, the percussionists may be challenged in unison exercises to play with the same articulation as the winds. In this way the percussion students will gain confidence by having the support of the rest of the band.

In addition, it would be more beneficial to students to always introduce *new* concepts in exercises involving unison playing before applying these concepts to exercises involving more independent parts. Such a sequence would be preferable to one in which students must learn the concept *and* think of playing independently at the same time. Unison playing will encourage percussion students to focus on the development of the concept because they are free of the distraction of trying to play their part correctly *and* independently from the group. Once the concepts are learned, they can be used in exercises that demand a higher level of independence.

## 7.4 Pacing of Instruction

The pacing of instruction for percussion students who are studying privately is usually dictated by the progress of the individual. In this setting some students will progress at a much faster pace than others. A qualified teacher will have no trouble determining when to introduce new concepts and techniques. Thus students progress at a pace independent

of their peers.

In the band class, however, the progress of all students must be coordinated so that all students learn together. It is not practical to have each student working at a different pace, since the value of *class* instruction depends on all students playing the same exercises at the same time. To provide for the most effective and efficient teaching, instructional materials must establish a pace that not only conforms to norms of progress for individual instruments, it must also provide adequate challenges for all instruments equally, while ensuring that growth is consistent on each instrument.

Unfortunately the pacing of the percussion parts in many band class methods has often failed to provide the consistent growth that is required to maintain student interest and development. Many percussion students become apathetic after several months of instruction. This is probably because they do not recognize the same progress in their own development as the other students in the class. While the wind instrument students may be learning new notes and new techniques each day, percussion students may receive very little new information on a daily basis. Admittedly, the addition of bells to the curriculum has probably been helpful in improving the perception of progress for percussion students. However, instructional materials too often still fail to provide the growth experiences that students need every day.

The problem is not a *lack* of information but the *timing* of its presentation. Instead of presenting small bits of information on a daily basis so that students may progress gradually and consistently, information is presented in chunks. Thus percussion students may receive no new information for great lengths of time, only to encounter a complex skill that they are not capable of playing because they have not been prepared for it. The result is a frustrated student who must cope with an unmanageable amount of new material that could not possibly be processed at one time.

As an example, flams are a particular problem in most band class methods because adequate steps are not taken to intentionally *develop* the ability to play flams. Most methods neglect to introduce sub-skills incrementally throughout the first several months so that all skills necessary are already in place when flams eventually appear in the exercises. Instead, flams are introduced with no preparation whatsoever. Furthermore, flams are often placed prior to the introduction of prerequisite skills such as dynamic control. Thus students must acquire all necessary prerequisites and sub-skills at the moment that flams appear in their parts. Presumably it is hoped that students will refine all these sub-skills, simply by playing flams repeatedly until they get it right. Yet, it is very unlikely that students will find it possible to focus on any one component of playing flams when there are so many sub-skills to be acquired at one time.

A more effective method of instruction would use the sequencing strategies described in chapter six, distributed throughout the percussion book, so that small amounts of new information are presented consistently and often. This slow, steady infusion of new information will keep percussion students interested and eager to learn, while providing them with skills and understandings that will facilitate future learning.

# Chapter 8

## SUMMARY AND IMPLICATIONS

This study has shown that the current band class methods used for percussion instruction in the school band class have not been entirely successful in meeting the needs of the band class teacher. Omissions of important concepts and skills, and an underdeveloped process for the presentation of instruction have posed serious problems for the student percussionist. Thus they have not proven to be efficient and effective instructional materials for band class percussion instruction.

A process for designing these materials was developed through the study of general recommendations by instructional designers. These recommendations suggested that to determine the needs of the instruction for band class percussion, compositions for wind and percussion instruments must by studied, to identify the demands they make of the contemporary percussionist. The recommendations also suggested that contemporary educational thought on how instruction can aid learning should be studied to determine how the content of the instruction should be presented.

From this study a set of principles for developing band class instructional materials for percussion was formulated. These principles were then used to generate specific teaching strategies. Three areas of instruction were targeted: (1) the formulation of a conceptual foundation upon which all percussion instruments may be approached, (2) the formulation of better skills development strategies, and (3) the formulation of strategies for teaching percussion in the context of a mixed instrument

class setting.

Future study should involve the development of a full curriculum for percussion to be used in the presentation of band class instructional materials. The ideas presented in this study have only shown what would constitute appropriate teaching strategies for curriculum development. The next phase in research must be to determine how these strategies could be expanded to provide the content for the entire percussion parts in a band class curriculum.

New compositions may also be needed which support the instructional strategies of the new curriculum. Such compositions, particularly at the elementary level, are necessary to reinforce and expand concepts and skills that are studied in the new band class methods. For instance, at present most compositions for young band include flams but do not include simplified multiple bounce rolls. With this new methodology, flams are inappropriate at the earliest stages because of the need for such extensive preparatory exercises. Simplified versions of the multiple bounce roll, on the other hand, may be easily introduced and developed even from the first day of band instruction. Therefore, compositions which include, for instance, preparatory flam exercises, and simplified multiple bounce exercises, would not only be more appropriate for student skill development, but would also complement the new instructional materials.

If these suggestions for further study and implementation are undertaken, it is the writer's opinion that the foundations and strategies presented here could play a significant role in the future of percussion instruction, band class percussion instruction, and the development of a more complete band curriculum.

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