HOW DO MUSIC TEACHERS MEASURE STUDENT GROWTH?

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HOW DO MUSIC TEACHERS MEASURE STUDENT GROWTH?

By

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Just as in other subjects, student growth in music is measured based on a number of factors. Based on the data collected from twelve music teachers ranging from grades kindergarten through twelve, I discuss the most frequently utilized factors and approaches employed by music teachers to measure student growth in the classroom. In addition to the inclusion of components such as rhythm, tone, scales, and sight-reading, music teachers made use of both a formal, individual, one-on-one observational approach, as well as an informal, “on-the-fly” individual observational approach within a group. Tacit knowledge along with professional expertise, in conjunction with individual experiences of both the teacher and the student established the framework under which student growth is measured. The findings suggest a potentially unique interaction between teacher and student where student growth is measured differently for each student-teacher encounter.
DEDICATION

I dedicate this study to my parents, Joseph and Kamille, and my late grandparents, Mike, Katherine, Edward, and Josephine. You have been exemplars of love and support. I could not have completed this program without your help. I love you very much.
ACKNOWLEDGEMENTS

I am thankful for the support and guidance of my dissertation chair, co-chair, and committee member. Thank you Harold and Constance, for your guidance and patience as I navigated the ups and downs of this program. Your help and encouragement have been paramount. Dr. Garlock, thank you for your musical expertise and opinion. Hopefully my work will provide, even if slight, a different way of looking at how we spend time evaluating students in the classroom.

I would also like to acknowledge my very good friend and former high school English teacher, Bill Strohm. Your countless hours of time spent helping me achieve this accomplishment are appreciated more than I could ever express. Your relentless pursuit of knowledge is infectious, engaging, and inspiring. On behalf of all of your students, thank you.
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CHAPTER I

Introduction

This dissertation is a report of a qualitative, grounded theory study of how music teachers measure student growth. The study was based primarily upon the face-to-face interviews with 12 music teachers in kindergarten through 12th grade. Four interviewees were elementary (K-3) teachers, four interviewees were middle level (4-8) teachers, and four interviewees were high school (9-12) teachers. The first chapter of the dissertation presents the background of the study, specifies its problem, describes its significance, and overviews its methodology. The chapter concludes by noting the delimitations of the study and defining some special terms.

General Background

I have been an educator for 13 years, the last five as the assistant principal at middle school in Northeast, Ohio. Prior to that, I taught middle school and high school mathematics, science, and technology. I have had many opportunities to work with students, teachers, parents, and community members in an ongoing effort to improve education. I have spent time serving as a classroom teacher, a building administrator, and a facilities manager. I have been a member of curricular committees, professional organizations, statewide conferences, local professional development committees, building advisory councils, technology committees, special education committees, Race to the Top initiatives, peer assistance review teams, formative instructional practice groups, and student learning objective committees. Additionally, I have experience in formal evaluation procedures as a teacher and administrator.
The majority of my work in education has been grounded in improving the learning experience for both teachers and students. Most recently, as an assistant principal, my focus has been on helping teachers improve their skills in order to provide a more enriched learning environment for the students. Specifically, I have focused on working with staff members in order to navigate the many changes being implemented at the state level. In addition to being presented new state standards for mathematics, science, language arts, and social studies, teachers are being challenged by a new evaluation system rooted deeply in student growth. In my district, efforts have been made to help teachers deal with the changes as well as possible, offering many opportunities for professional development and improvement. It has been my experience that teachers are appreciative of the offerings, but ultimately treat them as an entity separate from their own classroom teaching. I have observed a growing void between what teachers feel they must do to be successful in their own classrooms and what teachers feel they must do to remain compliant with local and state requirements. There exists a common sentiment among teachers that what is being asked of them outside of the classroom has little to no bearing on what is being asked of them inside the classroom. New mandates, initiatives, and programming hold value and opportunity but may be failing to address the bottom line of student growth and achievement in the classroom. We may be asking the wrong questions of the wrong people and could be overlooking our most valuable resources when we fail to delve into what our teachers are really doing with their students. As a result, we are losing sight of the students, their learning, and their social, emotional, and cognitive development.
Problem Statement

In public, K-12, education, course offerings are typically broken down into core classes, electives, and the arts. Core classes usually consist of mathematics, science, language arts, and social studies courses. Electives consist of physical education, technology, computer, health, and consumer science courses. The arts consist of instrumental, vocal, and general music, along with theater, dance, and art classes. Each subject requires teachers to measure and evaluate how well students perform. To be most effective, evaluative measures must align with subject specific standards and requirements. This is to say that students are held accountable for their mathematics work based on the mathematics standards. Likewise, students are held accountable for their science work based on the science standards. Recently, core classes, specifically mathematics and language arts, have received significant attention with respect to what students are learning and how they are being evaluated. Changes in state standards, end-of-year exams, and standardized testing have brought these subjects to the forefront of educational concern while other, less tested subjects, like the arts, are treated with much less interest, almost as if unintentionally forgotten. As articulated by Quinn, Heynoski, Thomas, and Spreitzer (2013):

In recent years our education system has been under great pressure. There have been calls for expanded accountability, particularly through standardized testing and more-rigorous teacher evaluation processes. Attention has been turned to the use of value-added scores [in mathematics and reading] to assess how much student progress a given teacher stimulates. These scores have been at the center of much controversy. (p. 1)
Some districts are even adopting the practice of shared attribution, a process by which all teachers in a building are held accountable for language arts standardized test scores from year to year. As evaluative measures in core classes, both for students and teachers, continue to change and expand, the gap between core classes and the arts continue to grow. The resulting separation highlights an artificial imbalance between the importance of the way we view and evaluate core classes and the way we view and evaluate art classes. As stated by Murray (2008):

Children with below average musical ability are usually exposed to music classes in elementary school, but they are allowed to drop out thereafter. Children with below-average spacial skills are usually exposed to art classes in elementary school, and in middle school may be exposed to a year of shop, but they are allowed to drop out thereafter…Only for linguistics and logical-mathematical ability are we told that we can expect everyone to do well. (p. 44)

If we aim to lessen the contrast between the core and the arts, we must take a closer look at ways in which teachers of the arts work. The intention of this study was to find out more about how music teachers measure student growth. The working research question for this study was: *How do music teachers measure student growth?*

**Professional Significance**

As the literature will suggest in Chapter II, there are, just as in all other subjects, many ways to effectively evaluate the growth and progression of music students. Choral, band, orchestra, or general music courses offer unique opportunities to measure student growth in a number of different ways, yet much of our time in modern education circles
is spent focused on mathematics and language arts, as these subjects have, for one reason
or another, proven to be more appropriate subject in which growth is measured.

The anticipated benefits of this study will include a more focused method of
developing, supporting, and evaluating music teachers in public K-12 schools.
Additionally, this study will provide insight to whether or not current models of student
growth measures are effective in music classrooms. This study may shed light in an area
of student growth and learning that mainstream education has overlooked: the music
teacher’s perspective. This study may highlight the potentially powerful effects of using
appropriate student growth measures, which focus on taking students from where they are
to where they should be, as determined by the music teacher. In music, we find it
perfectly acceptable to begin working with students who possess very little ability and
consider them successful when they improve, even if by a small amount. In music, it is
acceptable for students to be at many different ability levels when they begin and end the
year. And in music, it is acceptable that some students develop faster or more slowly than
others. The norm is to accept that as long as they improve at an appropriate rate as
dictated by their abilities, they should receive a good grade, regardless of where they
started or ended.

This study may not only uncover more about how music teachers measure and
evaluate students’ current ability levels, but also select appropriate objectives, activities,
and exercises required to improve, and effectively measure how much improvement
students make. This measurement of student improvement carries a significant amount of
potential in other subjects like math and science where success is often a result of
meeting norm-referenced standards, as opposed to the individualized needs of the student.
It may question the “assembly line” approach we still utilize in most public schools across the country, where students are grouped according to age, not academic ability (Robinson, 2008). When students do not perform well against the average of their peer group, they are considered “behind.” The possibility exists that this classification is much less of an issue in music classrooms, where students are measured against themselves more than against their peers. When they are measured against their peers, it is more likely to be a peer group based not on age but on ability. Additionally, in terms of evaluating teachers, this study may provide insight into a better, more musically specific way to measure how well music teachers are performing as educators. Hundreds of millions of dollars are being spent on developing new measurement systems that may serve some purpose, but are otherwise useless to improving standards or quality in teaching (Hargreaves & Fullan, 2012, p. 19).

Politically, efforts to improve the educational process have resulted in a significant amount of time and effort spent revamping current practices and policies. “Urban areas, districts that are heavily unionized, and those that are greatly dependent on state and federal aid are among those that are likely to be more pressured by the political environment” (Hannaway, 1993, p. 148). One of the many changes public schools are currently dealing with in Ohio is how teachers are evaluated. While the Ohio Department of Education (ODE) is still working through final details, many districts are taking it upon themselves to control as much of the process as possible. One way districts are attempting to do this is by creating, developing, and implementing their own professional evaluation procedures for teachers. Both the state and local initiatives are significant because of the potential impact they have on teachers. Recently, as the political landscape
in Ohio has changed, the relationship between professional unions and state government has been strained. In 2010, John Kasich was elected Governor and quickly backed Senate Bill 5, which was constructed to significantly limit teacher’s collective bargaining rights, and threatened union’s abilities to control the conditions under which teachers work and how they are evaluated (Dau-Schmidt & Lin, 2012). For the individual teacher, these trends, demands, and changing expectations were significant due to their personal nature. They felt their professional lives were rapidly changing. Many were uncomfortable with the increased attention and felt they were being judged by unfair expectations. Many challenges, especially in an emotionally heightened situation like this, await school districts looking to make improvements to the current evaluation system. There are three very significant lenses through which one can view not only the change regarding teacher evaluations, but also the overall educational landscape. Included in this list are the views of teachers and administrators, local and state level politicians and government agencies, and students, their families, and the community in which they live.

Evaluations serve as a tool to improve classroom teaching and rely on the ongoing communication between teachers, administrators, and students. Communication can take the form of common planning time between teachers, professional development seminars, informal lunchroom conversations, or guided peer-learning communities (PLCs). Evaluations are designed, in theory, to help teachers improve their skills in the classroom in order to better provide an appropriate learning environment for students. An appropriate learning environment is one that provides each student the level of instruction that matches his or her cognitive needs. However, evaluations need not be formal to be effective. More informal types of evaluative methods such as peer communication and
consultation provide abundant growth opportunities outside of the administrator driven evaluation process. Additionally, peer evaluations are considered by many to be a more effective method of improving classroom teaching. “If one recognizes the extent to which the concept of professionalism can be created or constructed according to the desired ends to be served by a PLC, one opens up for consideration the ideological implications of its use. In other words, the professional qualifier in a PLC may be seen not as describing the learning that is taking place but as legitimizing it” (Servage, 2009, p. 168).

In terms of scale, teaching practices should be measurable. This is to say that student learning should be at least somewhat data driven in order to evaluate and make changes to instruction when appropriate. Teachers must continue to monitor whether or not their teaching is affecting learning outcomes based on this data. Peer to peer review, in conjunction with appropriate formal observations, foster the appropriate culture for professional learning and data analysis between colleagues in order to ensure the best learning outcomes possible.

In order for evaluations to be effective, teachers must be meaningfully engaged in the process. This is to say that they must have appropriate input into what they are being evaluated on and by which standards they are being evaluated. Teachers must also have a comprehensive understanding of the standards they are responsible for teaching. Buchanan (2012) urges,

This is arguably the most vital interrelationship there is for teachers. Teachers should be accepted as the most important stakeholders in improving the quality of education. Any proposed regime on the part of management or systems to improve the quality of teaching and learning should involve, in its development,
operation and evaluation, a broad, genuine, and transparent consultation with staff on their views, suggestions, ideas, hopes, aspirations, and fears and on quality teaching and its enhancement. (p. 349)

Ongoing collaboration between administrators and teachers is an important aspect of effective evaluations and serves as the foundation of a trusting relationship between professionals. This type of collaboration must be a systemic feature of a school building and must be driven by an organized central office. The typical teacher evaluation program consists of a formalized process that is constructed without input from teachers and is not subject specific. A more meaningful approach to evaluations includes an opportunity for teachers to be able to demonstrate best practices in a variety of teaching methods and to model a repertoire of teaching skills specific to their subject area. It must also include an opportunity for teachers to demonstrate their ability to track student progress over time through the use of mutually understood data. This approach allows teachers to display knowledge of best practices and instructional strategies for effective classroom instruction. In addition to creating a more realistic evaluation process, teachers have the opportunity to introduce a high level of professionalism and rigor into their work. A higher level of responsibility accompanies the freedom to contribute to the evaluation process and ultimately affords students a more appropriate opportunity to learn in a way that best fits their needs.

As teacher expectations continue to grow in scope and responsibility, a more reliable evaluative tool is necessary. Music teachers, like all other teachers, should have an evaluation model comprised of components that are specific to music, music pedagogy, and the practice of teaching music. Common threads of good teaching techniques appear
across all curriculums and subjects, but music teachers certainly have a unique set of tools, which they can and should be using as they work to help students become better musicians.

**Methodology**

The purpose of this study was to find out how music teachers measure student growth in their classrooms. This was a qualitative study, in which information was collected from subjects by face-to-face interviews. According to Weiss, “the qualitative interview study is likely to rely on a sample very much smaller than the samples interviewed by a reasonably ambitious survey study” (1994, p. 3). Weiss further explained seven reasons to conduct a qualitative interview study:

1) Developing detailed descriptions;
2) Integrating multiple perspectives;
3) Describing process;
4) Developing holistic description;
5) Learning how events are interpreted;
6) Bridging intersubjectivities; and
7) Identifying variables and framing hypothesis (pp. 9 – 10).

Qualitative research, often categorized under the umbrella of interpretive research, assumes an individual’s reality is socially constructed. This assumes no single way of interpreting something. Each person generates his or her own observable reality, often referred to as an *interpretive* or *constructivist* perspective (Merriam, 2009, pp. 8-11). It is within the context of an interpretive perspective that this study was conducted.
In narrowing this qualitative study to best fit the research question, grounded theory was used. Grounded theory, introduced in 1967 by Glaser and Strauss, has proven useful in research that questions process, or, how things change over time (Merriam, 2009, pp. 29-30). Glaser and Strauss (1967) explained that grounded theory enables the researcher to predict and explain behavior, is useful in theoretical advance in society, is useful in practical explanations, provides perspective on behavior, and guides further research and study (p. 3). Merriam (2009) stated that a “grounded theory study seeks not just to understand, but to also build a substantive theory about the phenomenon of interest” (p. 23). In this case, the phenomenon of interest is how music teachers measure student growth. A further consideration for using grounded theory for this study was provided by Charmaz (2006):

The flexibility of qualitative research permits you to follow leads that emerge. Grounded theory methods increase this flexibility and simultaneously give you more focus than many methods. Used well, grounded theory quickens the speed of gaining a clear focus on what is happening in your data without sacrificing the details of enacted scenes. Like a camera with many lenses, first you view a broad sweep of the landscape. Subsequently, you change your lens several times to bring scenes closer and closer into view. (p. 14)

Subjects were exposed to no special conditions or procedures. Subjects were recruited through a professional network of public K-12 music teachers. Through my work as an assistant principal, I was able to access music teachers in the Northeastern Ohio area throughout all grade levels. Subjects were first contacted through email and given general information about the study. Subjects agreeing to participate in the study were contacted
a second time in order to make arrangements to meet, discuss, and record data. Research was conducted in a normal educational setting, involved minimal to no risk to the subject, and involved commonly accepted educational questioning practices. Subjects were recorded (audio only) and were identified only with pseudonyms in the analysis of data. Additionally, focus groups were used in the data analysis, which identified participants to one another only after participants agreed and understand the exposure that existed from meeting in a group.

**Delimitations**

Delimiting factors of this study included the sample size, geographical concentration of participants, and the fact that all subjects were teachers in the public school system.

Twelve participants took part in this study. Consideration of a larger sample size could have afforded me the opportunity to arrive at different, perhaps deeper, conclusions than those presented in this study. With the understanding that an n of 20 is more appropriate for this type of qualitative grounded theory study, efforts were made to include additional participants. However, this study took place near the end of the school year. Factors including time, schedules, and availability of participants restricted the size of the participant pool. Additionally, all subjects included in this study worked in a concentrated area of Northeastern Ohio. Consideration of a sample outside this region could have provided a different perspective based on physical location in the state or country. Finally, all teachers included in this study taught in public, K-12 schools. Inclusion of private school teachers, higher education teachers, or even private tutors or
home school instructors may have provided different patterns of data from which alternate conclusions could have been drawn.

Key Terms

*Rhythm:* refers to a student’s ability to identify or produce a regular, repeated pattern of musical sound, both vocally and or instrumentally.

*Tone:* the pitch, quality, and strength of instrumental or vocal sound.

*Scale:* an ascending or descending arrangement of notes in music that can be played on any instrument or articulated vocally.

*Sight Reading:* refers to a student’s ability to play or sing a piece of music as he or she is looking at it for the first time.

Organization

This dissertation consists of five chapters. Chapter I presents the problem, provides a general background of the study, reviews the methodology, and sets the agenda for the rest of the dissertation. Chapter II provides a review of the literature. Chapter III takes a deeper look into the methodology of the study by specifying the context of the research, providing information on the participants, and explaining the overall process of how data was collected and analyzed. Chapter IV discusses the results of the data collection. And finally, Chapter V summarizes the results of this study and discusses the potential for further study as a result of the findings.

Summary

In summary, this chapter has provided the general background of the study, including a statement of the problem as well as the professional significance of the problem. An explanation of the methodology is also included, identifying this study as a
qualitative, grounded-theory study of how music teachers measure student growth.

Chapter I provided delimitations of the study, including the sample size, geographical concentration of participants, and the fact that all subjects will be teachers in the public school system. Chapter I also explained how the overall dissertation was divided into five main chapters, including the problem statement, a review of literature, the methodology of the study, the results of the study, and a summary and discussion of the study.
CHAPTER II

Literature Review

Although there is a significant amount of research relating to student growth measures in core subjects; less is available that directly relates to student growth in band, choir, orchestra, and general music. Current research suggests best practice trends, topics, and methods being discussed in music education. However, little attention is paid to how these methods actually allow students to demonstrate individual growth, and what the music teachers are actually saying about it. In other words, there is a focus on what to do, and even how to do it, but there appears to be gaps in the literature when considering how music teachers actually feel about the effectiveness of these methods and procedures.

This chapter will explain the process in reviewing this literature and will focus on three major areas of research which include a broad overview of current best practice techniques and approaches as suggested by leading educational experts, an overview of trends and topics in music classrooms as it applies to the approach music teachers are taking to improve and grow their programs, and current trends and techniques being incorporated in band, choir, orchestra, and general music classrooms in order to provide students with the most appropriate environment for musical growth and development.

Search Process

The following review was developed through a process intended to emphasize current trends, themes, and patterns pertinent in circles of education that focus on the overall best way to ensure students are successful in the classroom. There is a significant amount of research and study pertaining to best practice as it applies to teaching. But the research stops short of following up with teachers to gain their input on how effective
these methods and practices are for their specific classroom. Additionally, this review is intended to show that while there is plenty of literature on methods, techniques, and approaches to teaching music, there is little emphasis on how music teachers feel about these methods. Teacher’s thoughts and opinions on the effectiveness of these methods are important to this study because it is the teachers who are responsible for their implementation. Ultimately, student learning is at the core of this process. Teachers’ thoughts and opinions may provide more concrete evidence confirming or denying the perceived effectiveness of these instructional methods. It should be understood that at each level of this review, the overall intended consequence of best practice is to provide students with the best possible environment to learn. Specifically, consideration will be given to how students are best equipped to learn and develop their skills in instrumental, choral, orchestral, and general music. It is important to compare best practice trends to what teachers are actually doing in their classrooms. Learning more about how music teachers measure student growth may provide more or less supporting evidence that current best practice trends actually translate to positive student learning outcomes.

**General Best Practice**

This portion of the literature review is intended to give an overview of what current educational leaders are saying about what is most important in establishing and maintaining a highly effective educational environment. One apparent theme running through the current literature is the importance of collaboration. Working and teaching in isolation cuts professionals off from valuable opportunities to improve their craft. And although there are those who suggest the ongoing push for teacher collaboration is nothing new and has accompanied most school reform initiatives dating back as far as
school reform has been around (Joyce 2004), it is difficult to deny how often this topic continues to dominate professional development and instructional improvement initiatives.

In a study of collaborative learning and teacher self-efficacy, Chong and Kong (2012) highlighted the fact that, after an extensive review of literature, collaborative learning structures are critical for successful teaching practice (p. 263). Teachers consistently receive input and feedback from administrators encouraging them to work together in collaborative groups. Teachers are not only encouraged to work within their disciplines, but also across disciplines in order to make connections between content and standards for the purpose of a more cohesive educational experience for the students as they move from one subject to another. A push for cross-curricular consistency is becoming very popular.

DuFour (2004), a leader in the area of teacher collaboration, has highlighted the importance of what has become known as professional learning communities (PLCs), and suggested the following:

The powerful collaboration that characterizes professional learning communities is a systematic process in which teachers work together to analyze and improve their classroom practice. Teachers work in teams, engaging in an ongoing cycle of questions that promote deep team learning. This process, in turn, leads to higher levels of student achievement. (p. 6)

Consistent throughout the literature is the fact that student learning and achievement is, or should be, the product of teacher collaboration. Although collaboration is initially
intended to strengthen the skills and abilities of teachers, it is always with student outcomes in mind that we look to increase the frequency in which teachers collaborate.

Friend and Cook (2007) provided a thorough and clear definition of collaboration, indicating that collaboration is voluntary between participants, requires parity among participants, is based on mutual goals, depends on shared responsibility for participation and decision making, encourages participants to share resources, and encourages participants to share accountability for student outcomes. Once again, the idea of a shared, mutual, and collaborative relationship surfaced. Interestingly, Friend and Cook suggested that the collaboration should be voluntary. This suggests that teachers should want to collaborate and do so without being forced. This brings to the surface the concept of teacher efficacy, how it plays a role in collaboration, and how it can lead to a better educational product for students. Teacher efficacy can be defined as how well a teacher feels he or she performs in the classroom as it applies to student learning. Simply stated, efficacy is related to good teaching, and whether or not an individual teacher feels he or she is achieving good teaching.

With the idea of good teaching in mind, Schmoker (2011) suggested that it can be broken down into three main parts; the content, the way in which the content is delivered, and how we read, write, and talk about the content (pp. 10-12). Schmoker believes that the failure to address this approach is one of our biggest problems in education today. Teachers must know the content they are teaching, they must organize and deliver the content appropriately, and they must engage the students in reading, writing, and talking about the content. Schmoker also points out that, although many times teaching takes place in isolation, these three areas should be refined in professional learning
communities where teaching practice can be shared, developed, and improved. In isolation, personal habits and behaviors go on unchecked. Individuals do not always have the ability to notice when they fall into patterns which may hinder their ability to teach. It is only through collaboration with others where they can discuss and reflect on their teaching that these types of patterns and behaviors can be recognized and remedied.

Similarly, Wormeli (2013) highlighted the importance of teachers working together in order to move beyond the discomfort of exposing their teaching practice to possible critique. “This is where most of the transformation occurs: not only in the information offered by the one critiquing, but in the back-and-forth between the two people involved” (p. 11). Again, Wormeli suggested that teachers are able to alter detrimental habits only when they are aware of them. For the most part, these types of personal conclusions take place in groups, not in isolation.

In their discussion of high performing schools, Hargreaves and Fullan (2012) pointed out that the best school systems in the world have not only a good amount of high quality teachers, but also an environment in which these teachers are encouraged and required to work together. They stated, “the only solutions that will work on any scale are those that mobilize the teaching force as a whole – including strategies where teachers push and support each other” (p. 22). Once again, the idea of teachers encouraging and pushing each other to perform is clearly established. It is not only imperative to have high quality teachers, but also just as important that those high quality teachers work together.

Reeves (2009), in discussing some of the most important ways to create positive change in today’s schools, suggested that there are a number of ways where collaborative professional environments are crucial. In terms of professional development, Reeves
believed that teachers are much more engaged when taking part in professional
development created and lead by other teachers. This “internal capacity” (Reeves, 2009,
p. 63) provides for a more realistic and approachable professional development
opportunity that more teachers are willing to buy into. Additionally, Reeves is a clear
supporter of providing teachers with appropriate amounts of time to spend on the “tough
work of examining real student needs” (p. 64), and cautions the use of before and after
school time, large scale assemblies and meetings, and other, non-authentic methods of
professional development. As we have seen before, Reeves explained how important it is
that teachers work together. Even in terms of professional development, teachers are
more likely to take away useable information if peers deliver the content. Time spent
working collaboratively with peers has a positive impact on the quality of classroom
instruction.

Even in diverse and inclusive classroom settings, collaborative themes of are
apparent. Voltz, Sims, and Nelson (2010) suggested that, in terms of teacher
collaboration in non-traditional, diverse, and or inclusive classrooms, there are five areas
on which to focus: Analyzing the nature of educational collaboration, allocating and
scheduling time for collaboration, using technology to create and extend collaboration
opportunities, co-teaching in diverse classrooms, and using collaboration to promote
family involvement (p. 93-98). They additionally suggested that “effective collaboration
is essential for creating successful inclusive classrooms. As educators, we must carve out
time to work together and plan and deliver instruction that meets the needs of diverse
students” (p. 108). Important to mention is the above referenced time that must be carved
out for collaboration. Similar to Reeves (2009), Voltz, Sims, and Nelson (2010) also
suggested that time is an important factor in the collaboration process. This suggests collaboration should be scheduled. In other words, although sometimes difficult, in order to give the collaborative process the greatest chance of succeeding, collaboration must be scheduled consistently and allotted an appropriate amount of time.

Even considering the challenges of finding time to collaborate, Chong and Kong (2012) suggested that the results of the collaboration are worth the effort:

A considerable number of challenges also faced [teachers], which included the difficulty in finding common meeting times for discussions and lesson observations, familiarizing themselves with the specific details of the lesson study process, and handling an already heavy school workload…[however], embedding professional development programs in the classroom and at the subject level where the new learning is to eventually take place, and safeguarding regular time away from curriculum hours over the course of the school year to reinforce collective learning, are examples of contextual conditions that the school can enforce to promote instructional change. (pp. 280-281)

To this point, finding time to collaborate, Brouwer, Brekelmans, Nieuwenhuis, and Simons (2012) emphasized that teachers and administrators must facilitate community building in their school based on individual needs. If the collaboration effort is to have a systemic affect, it must fit within the constraints of the current school schedule, teacher workload, and overall flow of the building. And there must be someone charged with the organization and implementation of the program (p. 340).

Wilson and Berne (1999) suggested three ventures that characterize successful teacher professional development including (a) a composition of community learners,
where, (b) teacher professional development is individually tailored to specific teacher needs, and where, (c) the community is committed to supporting and critiquing all members. In a study on peer collaboration, Danielowich (2012) found all teacher participants gained from at least one relationship within the group. Danielowich suggested that, despite differing opinions, members were still able to grow more through collaboration, even in small group conflict, than they would have in isolation. Danielowich also suggested that teachers in a collaborative environment are able to gain valuable insight on the views, approaches, and opinions of their peers. “The shared outcomes of the peer group experience extend the understanding of recent research about how the settings for and operation of dialogue enable teacher learning” (2012, p. 119).

Again, the literature suggested the importance of dynamic, back and forth relationships between teachers where individuals are free to share ideas, consider constructive feedback, and reflect on their own teaching as it relates to student learning. Furthermore, in a study of autonomy in school community, Gates and Watkins (2010) found that when teachers worked together, they did so with a desire to answer the question “What’s best for kids?” As an example, teachers divided up individual strengths and shared classroom successes with each other. They further suggested, “teachers both invested in and garnered from their collaboration an increased commitment to and growth of their professional skill and knowledge” (pp. 297-298).

Even in terms of pre-service (undergraduate) teachers, today’s teachers are expected to provide a collaborative, open environment in which student teachers are included and encouraged to participate, share ideas, and contribute to the overall well-being of the group. Korth, Erickson, and Hall (2009) suggested that simply placing pre-
service teachers into classrooms is not enough to ensure the pre-service teacher will learn skills to develop into an effective professional. Much of the success of the pre-service teacher is dependent upon the role the supervising teacher takes. If the supervising teacher takes a collaborative approach, including the pre-service teacher in on professional discussion, group planning, and other inclusive exercises, the pre-service teacher stands to grow much more than when pre-service teachers are excluded from these activities.

**Music-Specific Best Practice**

This portion of the literature review is intended to narrow the focus of best practice to music teachers. While the first section of Chapter II dealt with education as a whole, this section looks to consider music teachers in terms of what they are focusing on as a group to improve their ability to deliver a high level of musical instruction. Specifically, this section looks at what music teachers are doing (or should be doing) to improve music instruction including but not limited to teaching technique, collaborative practices, reflective practices, planning and curriculum, and student progress monitoring and evaluation (grading).

Abelson and Hicks (2007) outlined the efforts of Richard Miller, who from 1992 to 2002 conducted research in collaboration with language pathologists, musical clinicians and performers, acousticians, and otolaryngologists. Their research was designed to answer several questions, including:

1. What was done traditionally to teach singing?
2. How does one achieve excellence?
3. How can singing be made more efficient?
4) Which [singing techniques] are most effective?

5) If the most pleasing singing is the most “functionally logical,” how does one educate to that end?

6) Some suggestions by teachers are not logical. Such teaching can result in experimenting with students until the teacher can find those who can most closely reach that teacher’s acoustic ideal. Is there a way around this dilemma? (p. 273)

Part of Miller’s work intended to address these questions included the establishment of summertime workshops at the Oberlin College Conservatory of Music. Two outcomes of the workshops that illustrate the importance of collaboration include the encouragement of music teachers to effectively communicate with students, and to equip students with the skills to effectively interpret what their teachers were asking of them (p. 273).

Miller’s work provides a good starting point in the literature, as it sets the stage for the importance of collaboration between and among music teachers. Collaboration as a theme will continue to surface as we narrow the focus of the literature to the world of music teachers.

To the point of music teacher collaboration, Stanley (2011) highlighted the importance of Collaborative Teacher Study Groups (CTSG) for music teachers. CTSGs are designed to be an independently sustained group, organized by the teachers, with the purpose of fostering their own learning (p. 72). Stanley suggested that, when compared to teachers of other subjects, teachers of the arts (including music) have a more difficult time collaborating due to the unique nature of their subject. “CTSG’s are ideally suited to meet the needs of arts teachers by serving as a remedy for the unique isolation these teachers endure as well as meeting their need for subject specific professional
development” (p. 73). However, as Stanley urged, simply meeting to discuss is not enough. Research suggests that these types of learning communities must consider the following six components: (a) Length and quality of commitment, (b) content area versus pedagogical knowledge, (c) teacher goals and roles, (d) ways to examine teaching practice and structure conversation, (e) teaching assignments within the group, and (f) support for classroom implementation (p. 74-76). This suggests that, unless music teachers are collaborating with specific goals and outcomes in mind, directly tied to instruction, and regulated by an organized agenda and timeline, the time spent working together will probably not yield a positive outcome.

Cane (2009), suggested effective music collaboration consists of “equal partnering in the planning, implementation, management, and assessment among educators concerned in maintaining the integrity of music as a viable discipline” (p. 33). This collaboration is encouraged not only between music teachers, but also between teachers of the arts and the sciences. Persky, Sandene, and Askew (1998) pointed out that, according to the 1997 National Assessment of Educational Progress Arts Report Card, the major reason more students do not achieve at higher levels in music is that too many schools systematically deprive them of opportunities to learn by failing to provide sufficient time and staff for curriculum-based instruction leading to the skills and knowledge called for in National Standards for Arts Education. (p. 34)

Similar to Stanley (2011), Cane suggested that collaborative efforts need to be more than a group of teachers who meet regularly, and should include time to discuss and plan all major components of the classroom-teaching environment. Included should be a clear philosophical purpose for meeting, a specific set of learning goals, teaching strategies,
and assessment tools. To further solidify the idea of collaboration, Murawski (2005) suggested that “educators need to model the techniques they expect of their colleagues; these include consistency, structure, good teaching practices, punctuality, behavior management techniques, creativity, and high standards that also address different learning styles and needs” (p. 35). Cane (2009) also mentioned the importance of administrative support in the collaborative efforts of music teachers, but offers a warning that the success of such groups is ultimately determined by the organization, communication, and effort of each group member.

Continuing to focus on the importance of collaboration in music education, Thompson (2009) argued that although policy makers support music education, financial and political pressure often leads to difficult decisions about where to cut programming, professional development, and staff. As is often the case, the arts are the first to fall victim to reductions. It is because of this, according to Thompson, that internally driven professional learning communities are now more important than ever. Speaking on her experience at 2008 College Music Society national conference, Thompson detailed firsthand, the potential that lies in collaboration:

It was thrilling to be a part of this gathering where music professionals from these two different areas [music educators and composers] exchanged questions, ideas, and suggestions on how to work together to strengthen future music educators’ abilities to teach and promote composition in the schools. (p. 2)
Music, like any other subject, requires teachers to monitor and assess how well students are learning. This requires not only an effective method of assessment, but also a consistent way to adapt instruction to specific student needs when necessary. As in other subjects, students begin with differing levels of ability, understanding, and background knowledge. It is necessary for teachers to have an understanding as to where students are in the process of learning, and what they must do to move to the next level of understanding. It is a process that requires constant monitoring, and must be flexible enough to adapt to each student.

Hale and Green (2009) highlighted six principles for music assessment which include (a) beginning with the end in mind, (b) finding out what students know, (c) assessing as you instruct, (d) teaching students to self-monitor, (e) using rubrics, and (f) teacher self-assessment (pp. 27-31). These six steps are designed for both novice and experienced music teachers with the purpose of more accurately assessing the effectiveness of everyday instruction. Hale and Green’s six principles can be viewed as an outline for effective assessment in that all six components are critical parts to understanding and measuring where students are and what they need to do in order to learn. In a general sense, Hale and Green’s principles are not necessarily breakthroughs in music education. Rather, they suggest that measuring student progress in music is no different than measuring student progress in other subjects. Teachers must (a) understand the content and know where the students are headed in terms of what they are expected to learn, (b) understand what the students already know so as to accurately place them in the right spot to start, (c) assess how well the students are doing as they move through the
content, (d) teach students to self-assess in order to get a personalized snapshot of what they know with respect to what they are supposed to be learning, (e) plan the lessons in a rubric-like format that allows both the teacher and the student to know what different stages of mastery looks like, and (f) come up with a way to assess themselves in order to make sure the methods and approaches they are using are most effective in terms of student learning.

Similar concepts can be seen elsewhere in research, as is evident in Burrack’s (2002) discussion on enhanced assessment in instrumental programs. Burrack suggested that, in many cases, music teachers assess students too subjectively, relying on measures such as attendance records, sounds of the concert, variety of music, and other traditional measures. Burrack suggested that these measures are not necessarily accurate measures of how much students are learning or growing musically.

Assessing student progress in terms of attendance and technical skills is important, but other assessment possibilities can provide opportunities to observe students’ music learning in a broader context by focusing on higher-order thinking skills, such as problem solving and creative thinking. Self and group assessment can serve as vehicles for enhancing musical understanding, aesthetic sensitivity, and critical-listening skills. (p. 27)

Burrack continued on to suggest that student self-assessment and group assessment are critical components to appropriate growth in music, and such assessments should be tied to student feedback and grading, and should provide students with appropriate feedback in order to help gain perspective between where they are in relation to what they are supposed to be learning. “Strategies that personalize the music learning process,
including self and group assessments, can nurture students’ self-reflective capacity and their musical self-image” (p. 32).

In consideration of the above-mentioned personalized process by which we should teach music, Hill (2003) suggested music education should be as unique as the students involved. Taking into account factors such as age, race, socioeconomic information, family structure, and cognitive ability, the manner in which we introduce, teach, and assess music must be a personalized process. Much in the way Burrack (2002) and Hale and Green (2009) suggested the importance of an individualized approach to music education, Hill took it a step further and suggested we look beyond the layer of musical ability and background. Hill suggested that, in addition to music background, students of music benefited from consideration of socio-emotional components. This idea puts the concept of music education on the same level as other subjects in terms of the importance of knowing students. Hill is suggesting that in order to effectively establish an environment to teach and assess students’ musical ability, teachers must really know their students and provide the most personalized approach possible. “We want to reach them, and many of our programs reach out with ensembles and other offerings designed specifically for the widely different abilities and interests of this vast pool of potential students” (p. 9).

Along similar lines of inclusive thought, Shuler (2011) distinguished the make-up of music teachers as compared to colleagues that work in other subject areas. Shuler suggested that because music teachers are typically musicians in their spare time, they are more connected to the content than, say, a math or science teacher. This is to say that when a music teacher goes home in the evening, he or she is more likely to participate in
the act of music in the form of a hobby or avocation. And, although not always the case, math or science teachers are typically not involved in their subject to the same degree as music teachers (p. 8). Additionally, Shuler pointed out that music teachers work harder to recruit students to participate in their classes, often times having to go out and convince students to sign up. This is where we again see a very personalized approach to music education that is not necessarily found in other subjects. As Shuler suggested, because music teachers work so hard to build their programs, and because music classes are typically electives, music teachers must know and understand the student with which they are working and personalize the curriculum in order to keep the interest of as many students as possible. According to Shuler (2011), this must happen without sacrificing the integrity of the course or the music as a whole.

We must aspire to be elite without being elitist; even as we strive for quality, we must be inclusive. Are we serving minority students? Contemporary music teachers face the challenge of adjusting their curriculum and instruction in response not only to rapid changes in the nature of schooling but also to a student population that is increasingly diverse – in ethnic background and musical interests – and urban. (p. 11)

Once again, an effort by music teachers can be seen to not only focus on the content of the course, but also the students they are teaching. There continues to be a focus on the make-up of the students and an effort to understand where the students are coming from in order to effectively construct an appropriate course structure. It is with this in mind that music teachers are finding better ways to assess and monitor student growth because they are viewing the students as individuals, with unique backgrounds and differing
abilities to learn and grow. It is with this in mind that courses are being created, assessments are being administered, and growth is being measured. And it is all relative to the specific needs of the individual students.

Continuing with the concept of individualized approaches to teaching music, and the efforts music teachers must make to provide appropriate, effective, and engaging lessons, activities, and assessments, we can look to Standerfer’s (2011) piece on differentiated music instruction. Generally speaking, a differentiated classroom is one in which all students are met with the developmentally appropriate level of instruction. This can be difficult for teachers as, in many situations, there are varying levels of instructional needs that require an equally varying number of different approaches. However, Standerfer adamantly pointed out that differentiation in the music classroom does not need to be complicated.

Differentiation is not individualized instruction. It does not require a dozen lesson plans to meet one learning objective. Instead, teachers look for shared characteristics among students within a class in order to group students in ways that make the most of the learning experience. Differentiation not only recognizes that students are at different levels of readiness, but it also recognizes that students vary in how they process new information or skills as well as in what their interests are. Teachers differentiate instruction to make appropriate accommodations to ensure that the curriculum is engaging and appropriate for all learners. (pp. 44-45)

Standerfer continued to explain that there are three main elements to general instruction that can be differentiated. These include content, process, and product. Content refers to
what students are learning, process refers to the activities in which students take part in to practice the content, and product refers to the way in which students are asked to demonstrate what they have learned. It is here at the process level where music teachers have the ability to assess and evaluate how well students are doing in a way that is specific to the student. The concept of a differentiated or individualized process level instruction is the basis for this study. As the literature has suggested, there is overall agreement that student interests, abilities, and background must be considered before real learning can take place. Music teachers are working to accomplishing this in a number of different ways.

One popular individualized model of assessment is the portfolio. Hill (2008) summarized portfolios as a way to collect evidence and artifacts that highlight learning, growth, and accomplishment in one’s career, both as a student and a performer. Hill suggested three main types of portfolios: learning, assessment, and employment. Learning portfolios are typically comprised of items that students come across in class, and typically highlight major components and main themes of the class. Assessment portfolios are designed to measure how much a student has learned in a particular area, chapter, unit, or course. And employment portfolios are intended to highlight successes and accomplishments in ones career that would set a potential job candidate above another.

Mills (2009) considered portfolios to be a very effective tool for measuring student progress in the music classroom. Mills began to notice that, although her students were active participants in playing, practicing, and performing music, they had not developed the skills to reflect on their experiences and gain meaningful insight to what
they were doing. “There seemed to be very little reflection on expressive aspects of the piece and almost no reflection on technical aspects, such as vowels, diction, or tone. The students had not yet internalized these music concepts in a meaningful way” (p. 32).

Similar to Hill, Mills suggested three different types of portfolios. They include learning, summative, and product and performance portfolios. Learning portfolios are designed to showcase what students are actively participating in over the course of a lesson, chapter, or unit, and should be able to show progress over time. Learning portfolios can be likened to reflective journal entries in an English or composition class. Summative portfolios are intended to highlight the student’s best work, almost like a highlight reel, and are not used to show progress. And a product and performance portfolio is intended to measure large groups or ensembles rather than individual student progress or performance. These types of portfolios are helpful for teachers when arranging or ranking students in a group or section.

For the purposes of using portfolios for measurement and assessment, Linn and Miller (2008) suggested a five-step program. These five steps include (a) specifying a purpose and clear vision for what the portfolio is intended to show, (b) providing a guideline for what is going to go into the portfolio along with a clear description of what the content will look like, (c) a clearly defined description of the responsibilities of the student as a self-reflector, and support in helping students learn the process of self-reflection, (d) utilizing the portfolio as the basis for discussion on specific content concerns, strengths, and weaknesses, and (e) using the portfolio as the basis for grading (p. 283). Included in this step is a rubric, which outlines specific requirements in order for
the student to know and understand exactly what they must do in order to achieve a grade with which they are satisfied.

Mills and Hill’s approach to the portfolio approach are grounded in the fact that students gain more from a more personalized approach. The portfolio model allows students to work more flexibly through the content, providing opportunities to focus on areas of strength and interest, as well as be encouraged to work on and refine their skills in areas that require refinement. Given all that has been said about the importance of differentiation, the portfolio model, if used correctly by the teacher, affords opportunities for all students to take ownership of their own learning in such a way that corresponds with their individual needs, skills, interests, and abilities.

**Summary**

This review focused on three major areas of research which include a broad overview of current best practice techniques and approaches as suggested by leading educational experts, an overview of trends and topics in music classrooms as it applies to the approach music teachers are taking to improve and grow their programs, and current trends and techniques being incorporated in band, choir, orchestra, and general music classrooms in order to provide students with the most appropriate environment for musical growth and development.

Examples of best practice, generally as well as specific to music classrooms, include collaboration, professional learning communities, the acquisition of high quality teachers, positive learning environments, and a culture in which all the above mentioned are valued. The research suggests that, while the discussions among music teachers differ
in content, the approach to collaboration is just as important in music as it is in other subjects.

Current trends specific to music assessment include a clear understanding of the student as an individual learner, assessment models that afford students the ability to self-monitor and self-assess, a differentiated approach to the content delivery, and an overall agreement that student interests, abilities, and background must be considered before real learning can take place.
CHAPTER III

Methodology

This chapter explains the methods that were used to conduct the study that serves to answer the question, *how do music teachers measure student growth?* Emphasis was placed on the general perspective of the study, the context of the research, the research participants, the instruments used in data collection, and the procedures used to analyze the data.

The general perspective serves to explain the overview of the methodology, talk about what the study focused on, and discuss what type of research that will be used to achieve said focus. The context of the research will describe which instrument I chose to conduct the research, why I chose said instrument, how the instrument fits into my own personal lens through which I viewed this study, and the outcomes I expected as a result of using the instrument. The research participants section will describe the number and type of participants who take part in the study, background information on the participants, and any other information about the participants that will help create an image of the types of people that may be included in this study. The section on procedures used will be a step-by-step explanation of what will take place to initiate the research process, including created forms, documents, methods of participant contacts, and the Human Subjects Review Board (HSRB) application process. This section will also outline the methods used in initially contacting potential participants, and the follow-up to those who agree to participate. The section on data analysis will describe, once the data is collected, how I will work to analyze, code, and make connections between common themes. Additionally, this section will address issues of trustworthiness, and
how I will use techniques from the works of Merriam (2009) and Lincoln and Guba (1985) to ensure credibility, confirmability, dependability, and transferability.

The General Perspective

The purpose of my research was to find out how music teachers measured student growth in their classrooms. According to the Ohio Department of Education (2014), *growth* refers to how much a student improves in a combination of value added data, LEA measures, and vendor assessments. *Music teachers* include band, orchestra, choir, and general music. Questions in qualitative research that examine how things work, function, or operate, according to Hesse-Biber and Leavy (2011), tend to focus on the construction of personal meaning by individuals in a specific environment. Gubrium and Holstein (1997) additionally suggested:

*How* questions typically emphasize the production of meaning. Research orients to the everyday practices through which the meaningful realities of everyday life are constituted and sustained. The guiding question is *how* are the realities of everyday life accomplished? (p. 14)

From a methodological perspective, this study focused on how band, orchestra, choir, and general music teachers made sense of their own background and experiences as it translated to the way they chose to measure student growth. This research was framed through a constructivist lens because it helped make sense of the fact that teaching and learning are, as always, incredibly individualized. Generally speaking, a constructivist approach suggests that individual realities are created based one’s personal experiences, and that no two people can have the exact same view or approach to something because they each bring a different set of experiences with them. Scott (2006) pointed out that a
constructivist approach is a social expression of individuals interpreting new experiences based on what they already know, and that the community in which they work has a great deal of influence on how they interpret what is going on around them. In terms of learning, if each student has a different set of needs, experiences, and skills, then the way they are taught should also be different.

In determining a qualitative method to best answer this research question, grounded theory, introduced in 1967 by Glaser and Strauss, was used because it has proven useful in research that questions process, or, how things change over time. Grounded theory emerges from, or is “grounded” in the data (Merriam, 2009, pp. 29-30). What differentiates grounded theory from other types of qualitative research is its focus on building theory using only the data collected from participants (Corbin & Strauss, 2007). This was particularly important for this research because I only considered analyzing data that came directly from participants’ lived experiences, thoughts, opinions, and points-of-view. Glaser and Strauss (1967) explained that grounded theory enables the researcher to predict and explain behavior, is useful in theoretical advance in society, is useful in practical explanations, provides perspective on behavior, and guides further research and study (p. 3). Merriam stated that a “grounded theory study seeks not just to understand, but to also build a substantive theory about the phenomenon of interest” (2009, p. 23). In this research, the phenomenon of interest was how music teachers measure student growth. Each teacher brought a different set of experiences to the classroom, and made decisions based upon what they believed to be the best way to instruct and evaluate students. Grounded theory allowed me to organize and categorize emerging themes as they applied to the individual teacher. This is to say that grounded
theory provided the framework that allowed individualized data to be grouped into common themes in order to identify evaluative trends teachers may have had in common. Further considering grounded theory, Charmaz (2006) stated:

The flexibility of qualitative research permits you to follow leads that emerge. Grounded theory methods increase this flexibility and simultaneously give you more focus than many methods. Used well, grounded theory quickens the speed of gaining a clear focus on what is happening in your data without sacrificing the details of enacted scenes. Like a camera with many lenses, first you view a broad sweep of the landscape. Subsequently, you change your lens several times to bring scenes closer and closer into view. (p. 14)

In order to gain an authentic, unbiased representation of the methods used by participants to measure student growth, interviews using open-ended questions were conducted. Grounded theory served as the platform for data collection in order to connect universal strands and themes, which were discovered during the analysis stage of this study. Analysis of the data had the potential to provide ground breaking patterns or themes that tied together many or all of the participants in such a way that had not been identified up to that point. Further consideration of the flexibility of grounded theory, particularly throughout the data analysis stage of research, was given by Hesse-Biber and Leavy (2011):

As one collects data, one also interprets it and formulates a range of ideas to test out on additional data collected, and so on…data collection and data analysis can lead to the creation of ideas/hypothesis concerning the data…researchers move
back and forth in the steps of research, almost as if they are doing a dynamic dance routine. (pp. 36-37)

Grounded theory offered the best opportunity to move back and forth between the data collected from participants and the way in which I interpreted and analyzed the data. The back and forth flexibility between participant data and my interpretation of the data allowed for the highest degree of accuracy in understanding exactly what participants were saying.

The Research Context

The term context was used to identify the place and time of the study (Glatthorn, 1998, p. 156). The research activities covered approximately two months between April 1, 2014, and May 31, 2014. This research took place within various Ohio public schools spanning grades kindergarten through twelfth grade. Although research was not conducted within music classrooms in the school, all data collected from participants was directly related to what was happening within the music classrooms.

The Research Participants

The sample size for this study was 12 participants. As stated in chapter I, an n of 20 would have been more appropriate for this type of qualitative grounded theory study. Efforts were made to include additional participants. However, this study took place near the end of the school year. Factors, including time, schedules, and availability of participants, restricted the size of the participant pool. Participants were Ohio public school teachers. Four participants were elementary teachers (grades k-4), four participants were middle level teachers (grades 5-8), and four participants were high school teachers (grades 9-12). Participants included six males and six females of a
professional teaching age (approximately 22 - 65) and were distributed evenly across band, choir, orchestra, and general music. Racial or ethnic affiliations had no bearing on whether or not participants were included in this study. Additionally, although a range of experience was expected, years of service were not a prerequisite to be included in this study. Due to the fact that all participants were licensed Ohio teachers, all were in generally good mental and physical health.

Participants were recruited through a professional network of public k-12 music teachers. Through my work as an assistant principal, I had access to members of the Ohio Music Education Association (OMEA). The OMEA is a state-wide professional organization, composed of music teachers all across the state of Ohio. Participants were first selected with the intention of fulfilling the above listed criteria.

**Instruments Used in Data Collection**

Data were collected through recorded in-depth interviews. As categorized by Hesse-Biber and Leavy, “In-depth interviews are a particular kind of conversation between the researcher and the interviewee that requires active asking and listening” (2011, p. 94), and typically yield descriptive data that may lead a researcher to a general theory on a very focused topic. As it related to this research, the focused topic consisted of the way in which music teachers measured student growth. “Typically, researchers who conduct in-depth interviews are looking for patterns that emerge from the thick descriptions of social life recounted by their participants” (p. 95). I was looking for emergent patterns when differing methods of measuring students’ musical growth were considered. I chose the in-depth interview process to collect data because one-on-one interviews, both the first and second time through, as well as small group member
checking, provided the framework for data collection that lent itself well to a qualitative, grounded theory study, as allowed for several layers of analysis. Weiss (1994) outlined seven reasons why interviews are appropriate for this type of qualitative research:

1. Interviews allow for the development of detailed descriptions.
2. Integrating multiple perspectives provides a broader picture than what a single perspective affords.
3. Interviews allow for participants to describe their own specific process.
4. Holistic descriptions are more achievable when reports are constructed from similar behaviors and experiences.
5. Interviews allow for researchers to learn how events/actions are interpreted on an individual basis, and how that applies to the holistic view of the research question.
6. Participant quotes help the reader identify with the lived experiences of the participant and provides another useful piece to the holistic view of the research.
7. Qualitative studies can lay groundwork for further study. (pp. 9-10)

Interviews provided the opportunity to analyze and review themes for accuracy, as well as to repeat the interview to develop themes further and allow for grounded theories to emerge. Interviews provided an open-ended opportunity for me to probe and follow through on the participants’ thoughts, ideas, and opinions, and allowed me to avoid the constraints of closed ended questioning, surveys, or other restrictive data-collection instruments.
Procedures Used

In carrying out the research design, several specific procedures were used in order to best collect and analyze meaningful data. Included procedures consisted of approval to conduct research from the Human Subjects Review Board (see Appendix A), the creation and distribution of an initial letter inviting participants to take part in the study, an interview consent form, an interview protocol, the hiring of a transcriber, and the protocol for confidentially collecting, labeling, storing, and eventually deleting data.

The initial letter, which was emailed to potential participants, served to introduce who I was, where I was working, and why I was contacting them. The letter explained the purpose of the study in which I was inviting them to participate. Information on the interview process, how it worked, how long it would last, and the overall procedure were included. The letter concluded by inviting potential candidates to respond via email to either ask questions about the invitation or to schedule a time to meet and conduct the interview (see Appendix B).

The interview consent form was created to gain, in writing, permission from the participant to be included in this study. The consent form outlined HSRB policies, indicated that interviews would be recorded, that all files would be stored securely and, at the conclusion of the study, would be deleted. The consent form also informed the participants that they may withdraw from the study at any time without penalty. Participants were also informed where to direct questions or concerns in case they became uncomfortable with any aspect of their participation. Finally, the consent form alerted the participants of the nature of the study, and explained that the data collected
would be used for the purpose of writing this dissertation as a last requirement for the completion of my doctoral degree at Ashland University (see Appendix C).

The interview protocol consisted of approximately five questions. The first served to establish background information on the participant and the second got straight to the point of how participants measure student growth. The remaining three questions served as supporting and probing questions to help the participants answer the original and overarching question of how teachers measure student growth (see Appendix D).

Participants were audio recorded using a portable audio device that stored interviews on a digital card. At no time during the interviews were they asked to share their names. Upon completion of the interviews, the files were given to the transcriber, transferred from the audio recorder to a computer, and transcribed to Word files. Both the audio files and the Microsoft Word files were labeled with numbers to identify the participants. The numbers of the audio files matched the numbers of the Word files. Participants were also assigned pseudonyms to preserve confidentiality for data analysis purposes in Chapter IV. Beyond the recorded interview, no personal, identifiable information on the participants was shared with the transcriber.

Interview recordings were stored on my computer and backed up to an external hard drive, both of which were secured with a pass code. Transcripts of recordings were stored in the same fashion, as Word documents. All consent forms were scanned to PDFs and stored the same way. My transcriber turned over all information to me upon completion and all data were erased from his computer. All recordings, transcripts, and consent forms have been backed up to two pass-code-protected external hard drives and
my computer subsequently cleared. After the required 36 months, both hard drives will be re-formatted, which will permanently erase all data.

**Data Analysis**

After the interviews were recorded, they were transcribed into Microsoft Word documents, where the actual transcription was in the right-hand column and the coding notes were in the left-hand column. A three-step coding process outlined by Charmaz (2006) was used to analyze the transcribed data in an effort to narrow the data into clusters and themes. The three steps included initial coding, focused coding, and theoretical coding. Initial coding was used when analyzing for the first time in order to begin to break down the data into small, categorized parts. Focused coding then took the smaller parts created during the initial coding process and attempted to formulate fewer and more focused clusters of data. Theoretical coding took the codes a step further in an attempt to specify possible relationships between the categories established in the focused coding stage.

As suggested by Charmaz (2006), an initial coding process took place in which I kept an open mind as I quickly scanned the data, kept initial coding simple, and compared the data against itself along the way. Essentially, this initial coding was similar to an initial reading of a script, where I will looked for major themes, connecting thoughts or ideas, and unifying ideas between the transcripts. Line-by-line coding was used during the initial coding process so that I remained open to the data. Line-by-line coding required me to name each line of the written data. And while not every line held valuable information, it served as a useful technique in the early stages of forming patterns and establishing common themes between the data. As noted by Charmaz (2006),
“When you code early in-depth interview data, you gain a close look at what participants say and, struggle with. This type of coding [line-by-line] can help you to identify implicit concerns as well as explicit statements” (p.50).

Once a direction had been established from the initial coding stage, I began a more focused coding process intended to group smaller clusters of categorical data into larger ones (Charmaz, 2006). This meant that I combined smaller ideas gathered from the initial coding process and found common groups in which to place them. The larger, bigger picture categories began to focus concepts and ideas into more manageable, efficient categories. According to Charmaz, “focused coding means using the most significant and/or frequent earlier codes to sift through large amounts of data…focused coding requires decisions about which initial codes make the most analytic sense to categorize your data incisively and completely” (pp. 57-58).

Theoretical coding followed focused coding. Theoretical coding was intended to highlight relationships between the groups of codes established in the focused coding stage. This is where connections were made between larger ideas in the data. According to Charmaz (2006), “If you use them skillfully, theoretical codes may hone your work with a sharp analytic edge. They can add precision and clarity-as long as they fit your data and substantive analysis” (p. 63). Theoretical coding served to narrow the data down into concepts and ideas that tied the data together to the point of being able to draw conclusions that related back to the overall purpose of the study.

**Trustworthiness**

Merriam (2009) suggested that most people new to the field of qualitative research have some background in, and are more accustomed to, the methods and
applications of quantitative research as it applies to the trustworthiness of results. Numbers, charts, graphs, and data tables provide the support and evidence necessary to establish trustworthiness in a quantitative study, but this becomes more challenging when dealing with qualitative data. In both quantitative and qualitative studies, researchers must show that a certain amount of rigor has been applied to the results. Specific to qualitative studies, Lincoln and Guba (2000) want to know if the conclusions of a study are “sufficiently authentic…that I may trust myself in acting on their implications? More to the point, would I feel sufficiently secure about these findings to construct social policy or legislation based on them?” (p. 178) Qualitatively speaking, Merriam encourages researchers to consider issues of validity and reliability as a way to establish rigor in order to meet the requirements of a trustworthy study (p. 209). This is to say that trustworthiness acts as a proxy for validity and reliability in qualitative studies. Matters of validity and reliability can be accounted for if trustworthiness is established.

In discussions and descriptions of validity and reliability, Creswell (2008) pointed out that “valid scores [data] from an instrument make sense, are meaningful, and enable you, as the researcher, to draw good conclusions from the sample you are studying to the population” (p.169). Additionally, “reliable scores [data] from an instrument are stable and consistent. [Data] should be nearly the same when researchers administer the instrument multiple times at different times” (p. 169). However, as previously discussed, validity and reliability are typically associated with quantitative studies. To address these issues qualitatively, Lincoln and Guba (1985) suggested the concepts of credibility, confirmability, dependability, and transferability be considered to establish trustworthiness (p. 300). The following portion of this paper will serve to define these
concepts and outline how they will be utilized to address issues of trustworthiness in this research.

**Credibility**

Credibility, as described by Merriam (2009) deals with how closely research findings match reality. Many times synonymous with internal validity, Lincoln and Guba (1985) pointed out that a study can be considered valid if the findings, when compared to the data collected, are deemed credible. To address issues of credibility in my research, I used triangulation (Merriam, 2009).

I used the multiple methods approach of triangulation outlined by Denzin (1978) where more than one method of data analysis was used to confirm my findings. These methods included the original interview with the participant, a second interview with the participant, also known as member checking, and a focus group analysis.

The first method consisted of the original interview. After the data from the first interview were collected, coded, and grouped into potential themes, a second interview with the participants took place. This second interview served to confirm that the thoughts and ideas gathered from the first interview were accurate. During the second interview, I shared my interpretation of the first interview, and asked the participants to either confirm or deny my initial take-away. In other words, I asked the participant to verify I had an accurate account of what they were trying to say. This is known as member checking. Member checking, also known as respondent validation, is where researchers “solicit feedback on your emerging findings from some of the people you interviewed” (Merriam, 2009, p. 217). According to Maxwell (2005), member checking is the “single most important way of ruling out the possibility of misinterpreting the
meaning of what participants say and do and the perspective they have on what’s going on” (p. 111). When I felt the need to clarify or verify data beyond the first two interviews, I contacted the participants and, as necessary, discussed further.

The third and final piece of the triangulation process consisted of a group-level analysis known as a focus group (Hesse-Biber & Leavy, 2011) where a smaller group of the original participants were asked to get together and listen to themes that had emerged from the data after the original interviews and member checking. I invited two male and two female participants, representing band, choir, orchestra, and general music, to come together in order to consider the collected data and provide feedback on my interpretations. More specifically, I presented the data, my interpretation of the emergent patterns and themes, and how I felt the patterns and themes potentially tied together. This was provided via email to the members of the focus group before coming together, in order to give them time to review the data. Included with the data was information detailing the purpose and goal of the meeting, and how the participants would be expected to contribute. During the meeting I gave the focus group the opportunity to talk about the data, discuss and analyze my interpretation of the data, and add any additional feedback that may have been helpful in my accurately piecing together the data. This session lasted between an hour and 90 minutes. In order to best capture the participant feedback, this session was recorded on video for the purpose of easily identifying which participant is speaking. Accurately capturing the discussion was important in the event participant feedback suggested I had misinterpreted the data. In that event, I would be able to cross-reference the focus group feedback with the original data in order to make the necessary changes to my analysis. (Had I felt the need, I would have repeated this
process with a different group of participants.) This is a useful technique because “while individual accounts compose[d] the transcript, there [was] also a group narrative that emerge[d], which [was] larger than the sum of its parts. In other words, the group dynamic and group interaction [became] part of the data” (Hesse-Biber & Leavy, 2011, p. 187).

**Confirmability and Dependability**

Confirmability and dependability, which can be addressed simultaneously as described by Lincoln and Guba, (1985) focus on the idea that the findings of a study are shaped and molded by the respondents, not the researcher. This is to say that personal opinion, bias, and experience of the researcher should not, to the greatest degree possible, be a part of the findings.

In order to address the issues of confirmability and dependability, I used two techniques outlined by Lincoln and Guba (1985), one of which (triangulation) I discussed in the previous section. The second method I employed was an audit trail, the fully disclosed, step-by-step process that a researcher employs during each step of the research process. Halpern (1983) suggested keeping track of the following six components of the research process in order to compile an accurate audit trail: raw data, data analysis, data synthesis, process notes, personal notes, and information pertaining to the instrument used to collect the data.

Raw data included the recordings and transcriptions, including any hand-written notes, of all of my first- and second-round interviews, as well as the small group analysis interviews. Data analysis included any of the concepts, ideas, themes, and patterns I pulled from the data and notes. In other words, all notes or reflections I made after I
analyzed the data were saved. This same approach was used as I synthesized the data and started to cluster the data into groups and themes. Additionally, I clearly documented any process and personal notes I made as I worked, to establish trustworthiness. This included any corrections or changes I made to my data analysis as I revisited participants.

**Transferability**

Merriam (2009) pointed out that external validity, or transferability, “is concerned with the extent to which the findings of one study can be applied to other situations. That is, how generalizable are the results of a research study” (p. 223)? Lincoln and Guba (1985) suggested the best way to ensure transferability is to create a “thick description of the sending context so that someone in a potential receiving context may assess the similarity between them and...the study” (p. 125). To achieve a thick description, I provided thorough details in order to contextualize the study such that readers would be able to determine the extent to which their situations match the research context, and, hence, whether findings can be transferred (Merriam, 2009, p. 229). To the greatest extent possible, active listening, followed by a clearly written analysis, served to provide context, meaning, and emotion in this study. In other words, I described my interpretation of the data analysis clearly in order for the reader to understand it well enough to compare it to another set of data and make a decision as to whether or not the data are comparable.

**Ethics**

Weiss (1994) stated that being a good interviewer requires knowing what kind of information the study needs and being able to help the respondent provide it (p. 66). Merriam (2009) added that the reliability and validity of a study depend on the ethics of
the investigator, and that, “in all research, we have to trust that the study was carried out with integrity and that it involves the ethical stance of the researcher (pp. 228-229).

In order to conduct research in an ethical manner, I subscribed to the interviewing relationship as outlined by Weiss (1994), which included the following five components:

1. The interviewer and the respondent will work together to produce information useful to the research project.
2. The interviewer will define the areas for exploration and will monitor the quality of the material.
3. The interviewer will not ask questions out of idle curiosity.
4. The interviewer will respect the respondent’s integrity.
5. The interviewer will ensure, both during the interview and afterward, that the respondent will not be damaged or disadvantaged because of the respondent’s participation in the interview (p.65).

To ensure compliance with the above components, participants were given a copy of their transcribed interviews and had the opportunity to discuss any questions, concerns, or problems they may have had with it.

Summary

This chapter has outlined the methodology used in this study. In order to answer the question of how music teachers measure student growth, a qualitative, grounded-theory approach was used. Interviews, through a constructivist lens, was used to collect data from participants in order to be transcribed and coded through a three-step process that included initial coding, focused coding, and theoretical coding. Emphasis was placed on the general perspective of the study, the context of the research, the research
participants, the instruments used in data collection, and the procedures used to analyze the data. Additionally, this section addressed issues of trustworthiness, and how I used techniques from the works of Merriam (2009) and Lincoln and Guba (1985) to ensure credibility, confirmability, dependability, and transferability.
CHAPTER IV

Overview

The study reported here examined how music teachers measure student growth. Chapter IV serves to present the results of the study, organized in terms of how classroom teachers responded to the questions outlined in Appendix D, which look to specifically pinpoint how each participant measures student growth. The following discussion of data is structured in order to best highlight the emergent patterns and themes that remained consistent after intense analysis over the course of up to three encounters with participants.

In terms of measuring student growth, two major themes surfaced from the data. The first major theme consisted of the technical components of music used to identify and measure student growth. The four components mentioned were rhythm, tone, scales, and sight-reading. Of the four components listed, rhythm was mentioned most often across all age levels. Additionally, participants of all four types of music classes, including band, choir, orchestra, and general music mentioned rhythm.

The second major theme that surfaced from the data was the process music teachers used to employ the four major components of rhythm, tone, scales, and sight-reading to evaluate students and measure student growth. This process was applied in two different situations. The first situation was a formal, one-on-one observation conducted between the teacher and the student. Formal observations included face-to-face performances where the teacher would listen to and evaluate each student in real time or a pre-recorded performance, in which students recorded themselves playing or singing and submitted the recording to the teacher to evaluate at a later time. The second situation
was an informal, one-on-one observation conducted between the teacher and the student. Informal observations occurred during group performances, when a teacher would make “on-the-fly” observations of a single student while he or she was performing as a part of the group.

Included in the second major theme of how participants used the musical components to measure growth was an inferred sub-theme of tacit knowledge. Tacit knowledge refers to the knowledge acquired through personal, job-related experiences that allow individuals to adapt, select, and shape their environments in ways that enable them to achieve their goals (Horvath et al., 1994). Specific to this study, tacit knowledge explains the participants’ ability to evaluate, judge, and determine whether or not students are showing growth in their music classrooms. This can be categorized as professional expertise, through which participants draw upon complex skills and knowledge to reliably evaluate just how well students are performing (Leithwood & Steinbach, 1995). In many cases the data showed that participants made decisions about student growth based on “just listening” to the students or by “simply observing” how students were performing. Tacit knowledge and professional expertise provide a possible explanation of the participants’ ability to evaluate student growth based on individual interpretations of the students’ performance.

**Results**

This research study was aimed at developing a grounded theory to explain how music teachers measure student growth. To accomplish this, I engaged in a grounded theory study of 12 public school music teachers in Northeastern Ohio. Demographically, the teachers ranged in experience from one to thirty-seven years of music classroom
teaching, and included five males and seven females. Four participants were elementary teachers (grades K-4), four participants were middle level teachers (grades 5-8), and four participants were high school teachers (grades 9-12). Four participants taught general music, three participants taught band, four participants taught choir, and one participant taught orchestra.

Data were collected over a two-month period during which participants took part in one-on-one interviews, follow-up interviews, and small group discussions. The follow-up and group interviews were intended to clarify concepts and themes that may not have been clear after the first interview. After thorough analysis of the data, consistent themes emerged. All twelve participants were able to identify technical components of their content that they look for when determining whether or not a student has grown musically. However, not all of the components mentioned were consistent from participant to participant. Included in the list of components mentioned in this study were rhythm, range, tone, resonance, pitch, playing scales, intonation, bowing, dynamics, terminology, sight-reading, articulation, phrasing, and fingering. However, only rhythm, tone, scales, and sight-reading were discussed with any degree of consistency. Eight participants mentioned rhythm while sight-reading was mentioned by four participants. Two participants each mentioned tone and scales.

Participants not only discussed how rhythm, tone, scales, and sight-reading were used to measure student growth but also attempted to explain how they used the components to measure student growth. The following section will describe participants’ use of rhythm, tone, sight-reading, and scales as a measure of student growth. Also included in this section will be the consistencies that surfaced as to how participants used
the components to measure student growth. Throughout chapter IV, pseudonyms will be used in order to add a degree of specificity to the data without compromising the identity of the participants. Table 1 shows the list of participant pseudonyms, along with gender, subject taught, and grade level taught.

Table 4.1

Participant Characteristics

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Subject</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patty</td>
<td>Female</td>
<td>Choir</td>
<td>Middle School</td>
</tr>
<tr>
<td>Ron</td>
<td>Male</td>
<td>Band</td>
<td>High School</td>
</tr>
<tr>
<td>Todd</td>
<td>Male</td>
<td>Band</td>
<td>Middle School</td>
</tr>
<tr>
<td>Rebecca</td>
<td>Female</td>
<td>Choir</td>
<td>High School</td>
</tr>
<tr>
<td>Ann</td>
<td>Female</td>
<td>Orchestra</td>
<td>High School</td>
</tr>
<tr>
<td>Sara</td>
<td>Female</td>
<td>General Music</td>
<td>Elementary</td>
</tr>
<tr>
<td>Dennis</td>
<td>Male</td>
<td>Choir</td>
<td>High School</td>
</tr>
<tr>
<td>Patrick</td>
<td>Male</td>
<td>Band</td>
<td>Middle School</td>
</tr>
<tr>
<td>Erin</td>
<td>Female</td>
<td>General Music</td>
<td>Elementary</td>
</tr>
<tr>
<td>Mark</td>
<td>Male</td>
<td>Choir</td>
<td>Middle School</td>
</tr>
<tr>
<td>Beth</td>
<td>Female</td>
<td>General Music</td>
<td>Elementary</td>
</tr>
<tr>
<td>Tiffany</td>
<td>Female</td>
<td>General Music</td>
<td>Elementary</td>
</tr>
</tbody>
</table>

Rhythm

Eight participants mentioned rhythm as a critical component to measuring student growth. Rhythm refers to a student’s ability to identify or produce a regular, repeated pattern of musical sound, either vocally and/or instrumentally (New Oxford American Dictionary, 2010). Among all components identified by participants, rhythm was most consistently mentioned as an important part of measuring student growth. For example, Beth addressed rhythm in this way:

I’m looking for who is keeping a steady beat and who can keep a repeated pattern.

It spirals. It gets more and more complicated as they get older. For example, we
were checking to see their growth with rhythmic dictation, where we would clap a rhythm, and they would write down the rhythm that we clapped.

Rhythmic components were evident not only across disciplines but also across the different grade levels. Rhythm was the most consistently mentioned component used by participants where actual examples were given of how student growth was measured. The following is a key quote from Ann that highlights, to the greatest extent among the eight participants, how student growth is measured:

I have a rubric that I use to assess them in a few areas [including rhythm]. Let’s say I had one specific student who maybe came in at the beginning of the year and couldn’t play very well in tune or very rhythmically. Those are the two big things, I would say. And by the end of the year, based on the music that we worked on and the experiences they’ve gotten by just playing every day and playing a little harder difficulty level of music, I would say if by the end of the year they could play that music, most of the notes-I know that they’re not going to play maybe all the correct notes or all the correct rhythms-but if they could play it better than when they came in, I would say, yes, I’ve succeeded in what I’ve set out to do.

Another example of how rhythm is used to assess student growth comes from Erin’s general elementary music class:

If we sing a song, I ask them to clap the rhythm. We call it the “word rhythm.” Every word you say you would clap the rhythm. Also, I could clap a rhythm, the student clap it back, and then they write it on the boards. They dictate what I clap…seeing if they can follow the rhythm.

Additionally, of the eight participants who mentioned rhythm as a major component of
measuring student growth, four were consistent in mentioning that it was best to measure rhythmic growth over the course of the entire school year. Of the four, Sara stated:

I think if they come in at the beginning of first grade and they don’t know a quarter note from an eighth note, but at the end of the year, they can compose and they can look at rhythm and play it on a drum or something, that’s student growth to me.

When participants were questioned as to why rhythm is such an important component to measuring student growth, all eight were in agreement that the ability to recognize and work within the construct of an appropriate rhythmic framework is the base from which all other skills and abilities stem. Mark pointed out the following:

It starts with really isolating the different components that go into singing. And the two that I really focus on the most are pitch and rhythm. These skills, the rhythmic elements, the melodic elements, they build on each other. And I do not think you could truly have growth unless you go step-by-step and reach that pinnacle.

**Tone**

Dennis and Ann mentioned tone as a crucial part of measuring student growth. Tone refers to the pitch, quality, and strength of instrumental or vocal sound (New Oxford American Dictionary, 2010). With respect to choir, tone is considered along with range, resonance, and breath support. Dennis stated:

I see growth taking place in two different segments. You have the physical development judged by range, tone of voice, resonance, and breath support. Then you can judge by non-physical things, or at least, the other things, that include
sight-reading and performance.

In discussions referring to Ann’s orchestra class, tone was considered along with rhythm, intonation, bowing, and dynamics as critical components for assessing student growth.

I’ve kind of refined [my evaluation process] over the years. I have [the students] perform a blind audition. They [students] just come in and play for me. I have a rubric that I use to assess them in a few areas that include rhythm, intonation, bowing, dynamics, and tone quality. I do this not only to assess them, but [also] to put them in a seating order.

**Playing Scales**

The ability to play scales was also mentioned by two participants, Patrick and Todd. A scale is an ascending or descending arrangement of notes in music that can be played on any instrument or articulated vocally (New Oxford American Dictionary, 2010). Both Patrick and Todd are middle school band instructors. Todd stated:

I would have them play certain things, scales, musical excerpts, things that would kind of reflect just a normal environment of playing or a normal experience of playing. I still use scales. I still use the nuts and bolts of music to see what they know. A lot of times [the students] would struggle [with different scales] because they haven’t seen [the scales] before. And that’s what I was looking to achieve [finding out what the students did not know in order to align my teaching to their level of experience and understanding].

Patrick included an expected timeframe for each scale. In other words, there was a clear expectation for how long students are expected to take before mastering a particular scale, as the following excerpt from his interview points out:
So right now, what I do, is every month we work on a new scale. So today we introduced the E-flat scale to the kids. So how do I know I’ve gotten them to learn that scale? They have to come in and play it for me at the end of the month. Some kids come in [right away] and play [the scale]. So, obviously, those kids are a little bit further ahead than the kid [that takes all month]. But I don’t care about that. At the end of the month, every kid has to play that scale for me. And then it’s just a matter of listening.

**Sight Reading**

Rebecca and Dennis, who teach high school choir; Patty, who teaches middle school choir; and Ann, who teaches high school orchestra, mentioned sight-reading as an important way to measure student growth. Sight-reading refers to a student’s ability to play or sing a piece of music as he or she is looking at it for the first time (New Oxford American Dictionary, 2010). In this first example, Patty includes sight-reading as a way to assess the larger overall scope of rhythm.

I try to grade them on accurate notes and rhythm. I usually don’t grade them on any sort of singing talent or the quality of their singing. As long as they’re making improvements, and they’re learning how to read the music, and they know how to try to sing with a better tone or be less breathy or hold longer phrases, I am happy. [The way I assess accurate notes and rhythm] would be based on some kind of a singing example, either sight-reading [or a prepared piece given in advance].

Patty incorporated into sight-reading not only rhythm, but also tone. In the above-mentioned example, rhythm and tone are used to indicate how well a student is sight-reading. In other words, the more accurately a student reads and reacts to the rhythm
while producing a good tone, the better he or she will score on the sight reading assessment.

Ann uses sight-reading at the very beginning of the school year in order to establish a baseline of individual musical ability. This allows her to more accurately and effectively select music over the course of the year, which suits both the individual student as well as the entire group.

When [the students] first come in [at the beginning of the year], I have them play [sight-read] for me. And that kind of gives me an idea of what they know how to do and what they don’t know how to do. And based on the overall level [of the class], I can pick music based on a median difficulty [that best suits the group as a whole].

Sight-reading affords music teachers the ability to assess students at any level and on any instrument or voice. Sight-reading assessments can be quick and easy, or drawn-out and difficult. Sight-reading assessments provide clear, up-to-date snapshots of ability, which allow teachers to evaluate students at individual moments or over the course of an extended period of time.

The “How”

During follow-up questions and interviews, participants were given the opportunity to share ways in which they utilized rhythm, tone, scales, sight-reading, and any other of the above mentioned components to measure student growth. All 12 participants commented on how subjective the process was. All 12 participants relied on their own observations and interpretations of what they heard or saw as the main way to evaluate whether or not students were showing growth. The following excerpt from
Mark’s interview articulates the idea of hearing students play as a way to measure student growth:

There’s so much subjectivity in music, and there should be, since it is an art.

There are just so many interpretations you can take from it. The biggest way I have to do this [measure student growth] is to work with students individually … listening to them [as individuals].

Across all grade levels and subject levels, the concept of subjectivity as a main component of measuring student growth consistently surfaced. Responses could be categorized into two main parts that include formal one-on-one observations and informal one-on-one observations.

**Formal One-On-One Observations**

An example of a formal one-on-one observation is when a participant would sit down with a student individually and listen to him or her play or sing and evaluate how well the student is progressing in any of the above-mentioned components. Formal observations require students to perform pieces of music with which they may or may not be familiar. In the upper grades, typically seventh and above, students may be asked to record themselves during this process for further study or evaluation. Patrick depicts measuring student growth by formal observation the following way:

So how I judge growth is just by ear … just auditory … listening to the student.

Can [he or she] do it or not? [He or she] has to come in and play for me at the end of [every] month. You just listen to [them] and see if [they] are playing it right.

Similarly, this excerpt from Ron’s interview indicates the importance of formal, one-on-one observations:
I think the only really authentic assessment [I] am doing is when I listen to a student play one-on-one. You’ve got to really dig in and get to the individuals. Somewhere really early on I learned that to make sure that there’s growth going on with students, you’ve got to get in there and do one-on-ones. You’ve got to hear them play individually.

All four participants who teach at the elementary level also reported using formal, one-on-one observations. Beth discussed a progressive monthly approach to formal observations, where the assessments become more difficult over time:

About once a month [the students] have a playing test [one-on-one in front of the teacher]. Each test gets more difficult. [Each test] has three different melodies to choose from. And [the students] choose which one they want to play.

In no case discussed by participants was a formal one-on-one observation used for traditional grading purposes. In other words, formal observations were not considered when it came time to put grades in the grade book. Whereas in other subjects, formal assessments typically translate to grades (A, B, C, D, or F), participants were consistent in mentioning that formal observations were not used for grades. The main purpose of a formal one-on-one observation is to understand the ability level of each student so as to better prepare future instruction in order to provide each student with the best chance to improve musically.

**Informal One-On-One Observations**

An example of an informal one-on-one observation is when a participant would listen to or observe a specific student as they are playing or singing in a larger group, perhaps when walking past during a group rehearsal or activity. The main difference
between a formal and informal one-on-one observation is that students are aware of formal observations and typically unaware of informal observations. Tiffany states:

If you’re [the teacher] paying attention whatsoever, you can’t possibly miss out on what’s going on in front of you. I can hear what they’re doing. I can see what they’re doing. I do a lot of walking. I’m never still. And I can hear if they’re matching pitch or not, just by standing close to them. It’s much less formal and woven into their everyday experience in music.

According to Erin, informal observations are advantageous because they are quick to administer, require no preparation, and offer participants a fast and easy way to assess how well a student is doing at any given moment.

I can take a quick glance around the whole room and see if they are clapping the rhythm or singing. Just watching the kids and seeing them…you can hear them. I think it’s [watching and paying attention] a big part of it [measuring student growth].

Informal observations also appear to take place, in most cases, when students are unaware of the observation. According to all four elementary level participants, informal observations work best because students are unaware of the observation and do not become uncomfortable or nervous. As a result, students are more likely to display to the participant an accurate picture of their abilities. Tiffany articulates the following:

I am still checking them just as much [during an informal observation], probably more, but I’m doing it in a way that is not intimidating to them. There’s a ton of “on-the-fly” [observation]. Most of the assessing is disguised within what you’re doing, whether it’s individual or whether they’re working with a partner. We want
them to feel comfortable.

Additionally, Tiffany informally observes students during activities and games:

It’s [measuring growth] secretly woven into play. Children learn through play. If [the student] is singing during a game [in this particular game, students take turns singing by themselves] I can decide if they are matching pitch. You have to check in with more [students] on an individual basis.

Similar to formal one-on-one observations, informal observations were not reported to have anything to do with grading. The main purpose of an informal observation is, just like a formal observation, to understand the ability level of each student so as to better prepare future instruction in order to provide each student with the best chance to improve. As previously mentioned, students are often unaware when informal observations are taking place. This is advantageous as it allows students to be observed without the potential discomfort or nervousness that sometime accompanies formal observations. As a result, teachers obtain a more accurate picture of where students are in terms of current content.

**Tacit Knowledge**

As an instrumental contributor to today’s understanding of tacit knowledge, Polanyi (1966) suggested, “our body is the ultimate instrument of all our external knowledge, whether intellectual or practical,” and that we [human beings] heavily rely on our experiences to make sense of our understanding of the world (p. 15). Narrowing the focus of tacit knowledge to what teachers may experience while in the classroom, Wagner and Sternberg (1985) pointed out that tacit knowledge describes a type of knowledge or understanding that is usually not openly expressed or taught, and often
times gained from experiences related to work and on-the-job performance (p. 436). The theme of tacit knowledge has emerged from the data after significant consideration of the manner in which 10 of the participants answered questions about how rubrics were specifically used to measure student growth. Merriam (2009) discussed a strategy used by researchers called reflexivity, which describes the process of critical reflection on the self as a researcher and provides the reader with a better understanding of how the researcher has arrived at a particular interpretation of the data (p. 219). Through a reflexive process, it became clear that participants were unable to explain their answers to questions pertaining to their use of rubrics to measure student growth. Tacit knowledge may provide an explanation for this.

During the 12 initial interviews, all participants mentioned that they used rubrics to help measure student growth. In an effort to obtain a more detailed understanding about how student growth is measured in music class, participants were asked a follow up question to provide, in as much detail as possible, how the rubrics were actually helping to show growth. For example, when Ann stated, “I have a rubric that I use to assess [tone],” she was presented with a follow up question which asked her to talk more about what she looks for in the tone that suggests students are showing growth. Ten participants responded to this question with something equal or very similar to how Ann replied, which suggests growth can be identified and measured by observing and listening: “You can see and hear growth in class…[as you] just listen to each student play. [As a result], you get a pretty good reading on what they’re grasping [or not grasping].” When given a second and third opportunity to explain how rubrics are helpful in measuring student growth, participants always referred back to some use of their own
senses to make a determination about how much growth was made. As Todd stated, “I just listen to the student.” Likewise, Patty states:

I think a lot of it, for singing at least, can just be observed. So just by listening to them every week I can definitely tell [if they are showing growth or not]. You can see if they are getting better at something.

As it applies to music education, tacit knowledge is incorporated into student growth measurement without the teacher even thinking about it or realizing it is happening. Kennedy (1987) provided an explanation of the complexity of tacit knowledge in a situation similar to what Ann, Todd, and Patty have described:

It [tacit knowledge] requires a complex judgment based on such varied considerations as the teacher’s understanding of the content being taught, how that content is represented in the curriculum, how it may be represented in examinations students must take, how it can be represented for instruction, and how students are likely to perceive it. (p. 134)

Using Merriam’s concept of reflexivity as a lens through which the data is viewed, tacit knowledge seems to play an important role in how music teachers measure student growth. While the nature of tacit knowledge makes it difficult for participants to express and explain how they measure whether or not a student is showing musical growth, it does provide a rationale for why participants responded to follow-up growth related questions like they did.

Additional Themes

In addition to answering the question pertaining to measuring student growth, participants also provided clear and straightforward insight into three other themes that
became apparent during the data analysis stage of this study.

Of the 12 participants who took part in this study, 10 were in agreement that in order for any type of growth to occur, teachers must understand that each student is an individual, with very specific learner needs. In order for students to show growth, they must be presented with the appropriate environment designed to cater to the specific needs of the student. Secondly, students must be comfortable. In situations where students become self-conscious, nervous, or afraid, growth is not possible. Finally, measuring student growth requires time. Most all participants believe they have the ability to listen and interact with students in such a way that allows for them to assess, diagnose, and remedy any musical issue or concern, but fail to do so due to lack of individual, one-on-one time. Most all participants rely on their own senses to determine where a student is currently, what he or she needs to work on, and how far he or she can reasonably grow. But this is greatly limited by the lack of time and opportunity for participants to spend with students, specifically in one-on-one situations.

**Students as Individuals**

Ten participants mentioned student individuality as a major component to determining how to best measure student growth. Of the 10 participants, nine referenced the contrast in skill and ability that each student potentially carries with them to class. Examples of contrasting elements include general experience in music, comfort level with music, how much a student enjoys music, and how much or little they are supported at home in their efforts to pursue music in school. Mark pointed out the following in reference to how children sing with respect to how they should be evaluated for growth:

I know that some people in my class are a little ahead than others because when it
comes to singing and being a musician, everyone is at a different level. Voices are very personal. It would really depend on where the student comes in…everyone is on their own continuum, and everyone is on a spiral of learning, and everyone is on a different section of the spiral.

Along the same lines of individuality, Ron shared the following:

It’s not as cut and dry as giving a kid a piece of paper and a test or an exam where they fill in bubbles [on an answer sheet]. It’s very hands-on. You’ve got to look at where the student starts. You’ve got to bring [the student’s deficiencies] up to speed with what they are accomplished in.

The same sentiment was clear at the high school level as well. Dennis had the following to say about high school choir students:

Sometimes the students [are at different levels at different times], and [teachers] have to judge where the kids are. There are too many things that are variable. Too many [most notably their physical maturation and the effect that has on singing ability].

Interestingly, in music, individual backgrounds and abilities have a collective effect. Music teachers, in many cases, are faced with the challenge of organizing and arranging performances where a large group of students sing or play together for an audience. This challenge is unique to music and requires an often times difficult blending process of individual talent and ability. Not only does a music teacher have to understand each student in order to better meet their individual needs, but music teachers also have to understand each student in order to combine the varying talents and abilities into a performance group, where each individual plays a role in the overall sound.
Comfort

Nine participants mentioned the importance of student comfort. With respect to measuring student growth, the more comfortable students are, the more likely they are to portray an accurate picture of what they know or what they are capable of doing. This allows for participants to more accurately adjust to a student’s learning needs. Participants suggest that when a student is uncomfortable, they shut down and become unwilling to perform. As Erin pointed out, “I think if they are scared and nervous, you’ll never get anything out of them.”

Ron, who teaches high school band and is also the director of the marching band, highlighted the importance of making students feel good about what they are doing. The following excerpt suggested the relationship between successful experiences in music and retention in the music department:

You’ve got to get in to those kids and help them, because, I learned really early on that if you don’t, they quit. They quit because they’re not succeeding. If they feel like failures, they’re going to [quit]. So you’ve got to find a way to make them feel like a success. And the only way you can make them feel like a success is if they’re contributing [and getting positive feedback from the teacher or their peers]. Conversely, according to Mark, when students are relaxed, comfortable, and having fun, they are able to perform better and portray a more accurate picture of their talents and abilities.

If they’re enjoying what they’re doing [when] they’re making music, they’re able to achieve [more]. Interest levels go up as well as moral. The focus [of the
student] should be the curiosity, the excitement, and the progress [opposed to being nervous or scared to sing or play]. Every student should experience excitement and curiosity on a daily basis. It’s what keeps them engaged.

Three out of the nine participants who mentioned the importance of student comfort specifically mentioned self-esteem or self-confidence as a major part of students feeling comfortable. The three participants agreed that comfort and confidence in music starts when students have a positive view of themselves and their ability to be successful in music class. Beth stated:

They just get self-conscious. I [the teacher] want them to feel good about themselves. They have to experience success at some level. They all can achieve something. And it’s important that we can celebrate that success with them.

While providing and promoting high self-esteem, a comfortable environment, and the opportunity for students to feel good about their ability to play or sing is critical at every level, all four elementary level participants spoke passionately about it. In most cases, music classes at the elementary level are mandatory. Elementary teachers feel it is important to foster an overall positive environment for students to participate in order to increase the chances of participation at a higher level. This is important for music programs because music is not always mandatory at the middle and high school level. Music teachers want to keep as many students in their programs as possible, all the way through high school. So not only does student comfort impact individual growth in music, it also may determine participation in later years.

**Impact of Time Constraints on Student Growth**

The third component expressed by participants as crucial to measuring student
growth is having an appropriate amount of time. Seven out of the 12 participants interviewed reported that they need more time with students, either individually or in a group, in order to better identify student’s weaknesses and more accurately work to address them. Consequently, students would receive instruction specific to their individual needs that would potentially lead to further growth. Dave suggested the following:

If there is one thing we could do, it would be to give more contact time to the kids [in music classes]. Don’t cut back. Give more, more, more. We need more in those areas [music and the arts], and we need to keep supplying those teachers with the contact time they need with those kids.

One major distinguishing factor between the elementary (grades K-4) music classes and the middle school (grades 5-8) and high school (grades 9-12) classes is the weekly frequency at which they meet. All middle and high school music classes meet daily, where all elementary music classes meet once or twice a week. As a result, time becomes even more of an issue for participants teaching at the elementary level. Beth, an elementary level teacher, expressed her frustration with the infrequency in which she sees her students:

There’s not enough time. I see [the entire building] each week. That’s close to 400 [students]. There are times I wish I just had fifteen minutes after class to [keep certain students back to work with them individually], because they’re so close [to learning or mastering a skill]. I wish I could give individuals more help.

In addition to wanting more time to meet with students, two participants teaching elementary level classes also expressed a desire to have more time to meet with each
other. Erin admited:

I think one thing that would help is if we [music teachers] could have time to just talk. There’s no time at all to get together. Yes, we talk on email, and call each other all of the time [but it’s not as beneficial as working face-to-face]. Even once a month would be nice, to just have that time to work with each other [in order to plan lessons].

In order to deal with time concerns, participants at the middle school and high school level often provide individual students the opportunity to come in before or after school, during study halls, or lunch in order to work on particular skills or techniques. Even at the elementary level, where scheduling and other age related issues such as transportation and supervision make it difficult for extra work sessions, teachers are finding ways to work with other teachers throughout the school day to spend time with students to increase the opportunity for students to grow.

**Conclusion**

To summarize, the 12 interviews with participants, in conjunction with follow-up interviews and group interviews, served to provide data from which two major themes could be extracted. The first theme was comprised of four technical components of music that music teachers used as indicators of student growth. These components included rhythm, tone, scales, and sight-reading.

The second major theme that surfaced included two ways in which music teachers used the above mentioned components of rhythm, tone, scales, and sight-reading to measure student growth. This second theme included formal, one-on-one observations, and informal, “on-the-fly” observations. Formal observations were reported to take place
during individualized, face-to-face performances in front of the teacher. Formal observations were also reported to take place when a teacher would evaluate an individual student’s previously recorded performance. Informal observations were reported to take place during group performances, where the teacher would observe individual students as they participate along with others.

After significant consideration of the data, an inferred sub-theme of tacit knowledge and professional expertise were extracted from the second major theme of formal and informal observations. Tacit knowledge and professional expertise refer to the observational skills and abilities teachers acquired throughout their time as professional educators. Teachers made use of tacit knowledge and professional expertise as they listened to students perform, both formally and informally, and made decisions about whether or not students grew musically.
CHAPTER V

As a help to the reader, this final chapter of the dissertation looks to highlight the overall purpose of the study, as well as review the methodology under which the research was conducted. Most importantly, this chapter will present a summary and discussion of the results of the study. Included in the discussion of the results will be an interpretation of the findings of the study, the relationship of the current study to previous research, recommendations for educators, and suggestions for further research.

Problem Statement and Review of the Methodology

Public, K-12, education course offerings are typically broken down into core classes, electives, and the arts. Core classes usually consist of mathematics, science, language arts, and social studies courses. Electives consist of physical education, technology, computer, health, and consumer science courses. The arts consist of instrumental, vocal, and general music, along with theater, dance, and art classes. Ways in which core classes are taught and the manner in which students are evaluated in core classes have been thrust into the spotlight in recent years. The arts, while equipped with content standards and methods of student assessment, have gained much less attention in terms of how students are evaluated. In order to lessen the contrast between the core and the arts, we must take a closer look at ways in which teachers of the arts work. The intention of this study was to find out more about how music teachers measure student growth.

In order to answer the question of how music teachers measure student growth, a qualitative, grounded-theory approach was utilized. Interviews were used to collect data from 12 participants who taught in public schools in Ohio. The pool of participants
included band, choir, orchestra, and general music teachers. Participants were categorized as elementary teachers (grades k-4), middle level teachers (grades 5-8), or high school teachers (grades 9-12). In order to obtain data from which patterns and themes could emerge, face-to-face interviews were conducted, with follow-up interviews and small group discussions utilized as necessary. Interviews were transcribed and coded through a three-step process that included initial coding, focused coding, and theoretical coding. The patterns and themes, which surfaced from the collected data, are discussed and summarized below.

**Summary of the Results**

Two major themes surfaced from the data collected in this study. The first major theme included the fact that music teachers utilize rhythm, tone, scales, and sight-reading as components in the overall process of measuring student growth in music classes. The second major theme focused on two different scenarios in which rhythm, tone, scales, and sight-reading were either observed or utilized to most effectively measure student growth. The first of these two scenarios is a formal, one-on-one, process in which music teachers listen to and observe individual students playing or singing. The second scenario is informal, takes place in groups, and utilizes a more “on-the-fly” approach to listening to or observing a student performance in order to measure student growth.

An additional theme of tacit knowledge surfaced by way of a reflexive process (Merriam, 2009) utilized throughout the analysis of the data. In attempting to articulate ways in which they utilize rhythm, tone, scales, and sight-reading, both formally and informally, participants struggled to provide detail beyond their own observations. In situations where participants were pressed to further explain the way in which they knew
students were growing musically, never once could they provide an answer that actually outlined a process that went beyond their own seemingly innate ability to measure growth by observation. Participants were confident in their ability to measure growth by “just listening.”

Other themes that surfaced included participants viewing students as individuals, the importance of students being comfortable in music classrooms, and the impact of time constraints on student growth.

Individually, there exists a contrast in skill and ability that each student exhibits. Examples include differing experience in the overall realm of music, comfort level with musical performance, how much students enjoys music, and how much or little they are supported at home in their efforts to pursue music in school.

In terms of comfort, the more comfortable students are in class, the more likely they are to exhibit their true musical abilities. This allows for teachers to more accurately assess and adjust to a student’s learning needs. When students are uncomfortable, they may not perform to their potential, making it much more difficult for teachers to react and appropriately differentiate instruction.

Finally, the lack of available music classroom time with students may inhibit a teacher’s ability to measure student growth. In order to accurately identify student’s strengths weaknesses and work to address them, participants feel more time with students is necessary.

**Interpretation of the Findings**

The data collected from this study suggests that music teachers measure student growth by utilizing musical components including but not limited to rhythm, tone, scales,
and sight-reading. These components are observed, utilized, and/or measured in both formal, one-on-one, environments as well as informal, large group environments. However, the data also suggests that music teachers utilize the above mentioned components and situations as a platform to organize the process of measuring growth, but actually employ a much more constructivist approach to actually deciding whether or not a student is growing musically.

As previously discussed, the data suggest participants utilize what is known as tacit knowledge, sometimes called expert knowledge, to make decisions about student growth. This concept presents a possible scenario where participants draw on their own background, experiences, and abilities to measure and assess student growth. This is to say that participants, without realizing it, instinctively determine whether or not a student is showing growth by comparing what they are listening to or observing to their own background, experiences, and abilities. The role tacit knowledge plays in how student growth is measured suggests the entire process participants go through in determining growth is constructivist in nature.

According to Merriam (2009), constructivism, synonymous with interpretivism, assumes that “reality is socially constructed [and that] there is no single, observable reality” (p. 8). Furthermore, Creswell (2007) explains that an individual’s reality is formed constructively “through interactions with others and through historical and cultural norms that operate in individuals’ lives” (pp. 20-21).

A teacher may suggest that he or she is able to determine growth by “just listening” to a student sing or play an instrument, but there is more to it than an individual observation. A constructivist or tacit approach to this scenario suggests that teachers are
actually comparing what they are hearing to years of their own growth, development, and education which has brought them to the point at which they understand what they are listening to in a very specific way. Furthermore, going back to the theme of students as individuals adds another constructivist layer on to this scenario. Not only do teachers utilize a very unique set of experiences to understand and evaluate musical concepts, but students also come to understand and utilize the same musical concept based on their unique set of experiences. In an effort to establish a theory grounded in the data collected throughout this study, the following section, along with chart 5.1 illustrated below, suggests the highly unique and individualized nature of the interaction between a teacher and student in a music classroom where student growth is measured.

For the purpose of this illustration, consider the musical element of tone as the basis on which student growth is being measured in an eighth-grade choir class. Consider that one teacher (female) is measuring the musical growth of one student (male), as the growth applies to the tone of the student’s voice. Also consider the previously discussed themes of tacit knowledge and students as individuals. Additionally, recall the highly individualized concept of constructivism, in where an individual’s reality is unique, and a product of all previous experiences.
Figure 5.1  
Grounded Theory of How Music Teachers Measure Student Growth

- **Constructivist Learning Theory**
  - Individualized for Both Student and Teacher
  - Created Based Upon Lived Experiences

- **Assessment Modalities**
  - **Formal Observations**
    - Real-Time/One-on-One
  - **Informal Observations**
    - Individual's Performance in Group Context

- **Assessment Components/Elements**
  - Rhythm
  - Tone
  - Scales
  - Sight Reading

- **Assessment Lenses/Filters**
  - **Tacit Knowledge**
    - Gained From Lived Experience
  - **Professional Expertise**
    - Gained From Professional Teaching Experiences

- **Formalization of Assessments**
  - Assign Grades as System-Required-Measurement of Student Growth
From a constructivist approach, in considering the teacher, there are several factors that play a role in this scenario. To begin, the teacher is a product of her experiences. The way in which she came to understand tone, through years of her own growth and development as a student, her time spent preparing to become a teacher in order to evaluate tone, and her tacit knowledge gained through experiences as a teacher, all play a role in the way she defines, understands, listens to, and evaluates tone.

Likewise, from the same constructivist approach, the student in this scenario has arrived at his understanding of tone by way of all previous experiences. The student’s ability to produce tone may be inhibited or enhanced by his natural abilities, his understanding of what tone is, and his understanding of how to physically produce a good tone. Additional factors that influence this scenario may include student motivation, physical maturity, emotional stability, the quality of home life, and many other external environmental factors that play a part in any student’s ability to be present and engaged in school.

Although the concept of tone may be simple and straightforward, the act of measuring how much a student grows in his ability to produce tone is not. This example serves to highlight the very different ways that both the teacher and the student may have arrived at the moment in which tone is being measured. In this example, the teacher, with her unique set of experiences, will make decisions based on her ability to listen to the student produce tone and measure that tone against her own experience and understanding of tone. This evaluation process will take place all while the teacher is considering her understanding of the unique set of circumstances surrounding her student. The data suggests that music teachers factor in student individuality when measuring
growth. So when the teacher in this scenario evaluates the student on his growth in the area of tone, she is not only listening to him sing, but also thinking about and considering his natural talents and abilities, his interest and engagement in school, the impact his home life impacts his ability as a musician, and how far she believes he can grow musically.

This example serves to illustrate the highly individualized nature of the interaction between student and teacher during the process in which student growth is measured. Considering the fact that music teachers are responsible for evaluating growth not in one student, but in a classroom full of students, highlights the complex and individualized nature of the process of measuring student growth.

**Relationship to Previous Research**

The data collected in this study supports previous research with respect to the structural components of measuring student growth in music classes, but may provide a deeper understanding of the processes and procedures music teachers go through in the act of measuring student growth. The literature review was organized into three main parts, which consisted of best practice as it applies to education in general, music specific best practice, and assessment models specific to music.

In terms of general education best practice, the literature suggested the importance of a collaborative environment for teachers. Working with each other provides teachers the opportunity to share best practices, learn new skills from each other, and reflect on their own practice with the purpose of improving their ability to teach. One of the themes that surfaced from the literature was that of time, and the importance of teachers having enough of it to spend with both students and colleagues. Specifically in this study, one
participant in particular was not only adamant about the importance of needing more time with her students, but also with her colleagues in the music department. She highlighted the difficulties in finding common planning time with her fellow music teachers, but indicated the practice of collaboration was extremely helpful and had a positive effect on her ability to work with students. This concept is in line with what Chong and Kong (2012) suggested regarding the importance and effectiveness of collaborative teacher learning environments, where finding common meeting time for discussion and lesson observations promote instructional change that benefits the students (pp. 280-281).

The second part of the literature focused on music-specific best practices, which narrowed the focus from general teaching to specific practices found to be taking place in music classrooms. As the focus of the literature was narrowed to music teachers, the concept of teacher collaboration continued to surface. Specifically, as pointed out by Stanley (2011), teachers of the arts, like music teachers, are more likely to teach in isolation due to the smaller numbers typically found in schools (p. 72). Unlike core subjects such as mathematics and science, where you typically find multiple teachers of the same subject, music teachers are more likely to be the only one of their kind in a particular building. This makes collaboration more difficult and typically requires teachers to travel from building to building in order to meet with colleagues. Again, while it was not a dominant theme in the research, the data did suggest the challenges that are specific to music teachers and their ability to work with each other. The literature was specific in describing and explaining what music teacher collaboration should look like. Both Cane (2009) and Stanley (2011) provided detailed approaches to building and sustaining collaborative work environments for music teachers. In terms of the data from
this study, beyond the single participant who mentioned collaboration as an important component to measuring student growth, there was not a theme or focus that surfaced which equaled the literature’s assertion of the importance of collaborative environments.

The third and final portion of the literature review looked at music-specific assessment models utilized to assess student growth. Much of the literature made mention of rubrics as a framework from which to organize, monitor, and evaluate students on musical components. Linn and Miller (2008), Hill (2008), and Mills (2009) all addressed the importance of using rubrics as a part of an organized approach to measuring and evaluating students in music classes. Although rubrics were not found to be a major theme in this study, two participants mentioned they use them as a way to keep track of and monitor musical components such as tone, rhythm, and scales. The literature suggested a much more detailed and embedded use of rubrics as a way to monitor student growth and development. For example, Mills (2009) suggested using rubrics not in isolation, but as part of a five-step program that includes purpose statements, guidelines and descriptions of what the students are expected to accomplish, a statement of expectation which charges the student to take responsibility for their own learning, and clear and direct learning goals and objectives.

The literature also strongly suggested the importance of the student as an individual. This is to suggest that it is very important for music teachers to know and understand students, their musical ability, and their personalities. The idea of understanding and working with students on an individual level was a clear theme that surfaced from the data. This concept was brought up by ten of the twelve participants interviewed for this study. The concept of understanding students as individuals stands as
the theme where the previous research most coincides with the data collected in this study. In addition to others, Burrack (2002), Hill (2003), and Shuler (2011) suggested the importance of understanding students as a critical component to measuring student growth. Burrack (2002) warned not to assess too traditionally on components such as attendance, participation, or behavior. Rather, music teachers should personalize the learning process for each student. Likewise, Hill (2003) suggested music education should be as unique as the student. Additionally, Shuler (2011) pointed out that, before effective learning and growth could occur, music teachers must know and understand the students with which they are working.

Participants in this study echoed the importance of individualizing musical expectations and experiences for students that the research first established. As one participant stated, “When you’ve got kids coming in at all different levels from all different places and all different realms, to me, that’s where the teaching begins…as I focus on the individual, the group [full choir] is that much farther ahead.” All ten participants who mentioned the importance of understanding the student as an individual did so with the purpose of accurately and effectively evaluating the student’s musical growth.

In terms of students as individuals, both the literature and data provide evidence of the effectiveness of this component. This evidence serves to support the grounded theory outlined in the previous section, which focuses on the idea that, not only is it important to understand the students as individuals, but also the teacher. If we value the individual nature of the student, as it applies to measuring musical growth, it stands to reason we should value the individual nature of the teacher. Both the student and the
teacher have equal parts and responsibilities in cultivating musical growth.

**Recommendations for Educators**

The ideas surrounding individualized approaches to teaching and learning music lend themselves to a constructivist approach to education. Generally speaking, a constructivist approach suggests that individual realities are created based on one’s personal experiences, and that no two people can have the exact same view or approach to something because they each bring a different set of experiences with them. Given what educational practitioners have learned about the importance of individualized and differentiated instruction, it stands to reason that constructivism fits in somewhere along the way. If we agree that each student has a different set of needs, experiences, and skill-sets in terms of learning, then we can also agree that the outcomes that indicate learning has taken place should also be different. Taking this idea one step further, we should also come to the understanding that students will only understand what they have learned if it is framed within the context of what they already know. Scott (2006) pointed out that a constructivist approach is a social expression of individuals interpreting new experiences based on what they already know, and that the community in which they work has a great deal of influence on how they interpret what is going on around them. Additionally, Scott stressed that in collaborative, constructivist environments, students tend to group themselves according to their own interpretation of ability and “become questioners [who] reflect on their comprehension, recognize misunderstandings, and ask questions that will help them understand the learning situation at a deeper level” (p. 18). Scott also suggested that constructivist learning theory is founded on the following six principles:

1) Knowledge and beliefs are formed within the learner.
2) Learners personally imbue experiences with meaning.

3) Learning activities should cause learners to gain access to their experiences, knowledge, and beliefs.

4) Learning is a social activity that is enhanced by shared inquiry.

5) Reflection and metacognition are essential aspects of constructing knowledge and meaning.

6) Learners play an essential role in assessing their own learning (p. 17-18).

In unpacking and following Scott’s principals, educators interested in considering a constructivist approach to teaching can take the first steps towards an individualized approach to student learning by first understanding that students are individuals, with individual sets of experiences, expectations, abilities, and educational needs. As individuals, students learn best when content in the classroom is somehow made to be relatable to experiences the student has lived through. In many cases, these experiences take place not in isolation, but in socially constructed environments where other intrapersonal interactions take place. This is to say that learning should be a shared experience, with individual students having the opportunity to work together with others. Additionally, students should be afforded the opportunity to reflect on their learning, along with the opportunity to play a hand in the creation of their own learning.

Practically speaking, in order to best serve students as individual learners, teachers should, as often as possible, frame the content so students can relate to it from personal experience. However, as this study has suggested, an additional step may be necessary. Teachers must not only attempt to relate the content to what the student is already familiar with, but also try to articulate how it makes sense to them.
Suggestions for Additional Research

After considering the results of this study, there are three areas that merit additional research. The first area focuses on discovering more about how consistently music teachers evaluate student growth. The second area looks to uncover music teachers’ use of traditional grading scales in the process of evaluating student growth. The final, and most important, area to consider for additional research is the transferability of the results of this study to core subjects such as mathematics, language arts, social studies, and science, in addition to other performance-based areas such as fine arts, mechanical arts, physical education, and consumer sciences.

Considering the individualized nature of measuring student growth in music, it would appear to be useful to understand more about how consistently music teachers would evaluate the same piece of music. In other words, if multiple music teachers were to listen to the same piece of music, as performed by a student, how closely would they rate the performance on elements of tone, rhythm, or phrasing? Another suggestion would be to record a student playing a specific piece of music at the beginning of the academic year, then again at the end of the academic year. Again, considering elements such as tone, rhythm, and phrasing, it would be interesting to see how a group of music teachers would evaluate the student in terms of growth. The current study considered situations in which teachers evaluated students in isolation; none of the participants in this study listened to or evaluated the same student. Perhaps a situation in which music teachers listen to and evaluate the same student would provide more of an insight into what music teachers are actually looking or listening for when measuring student growth.

A second area to consider for additional research deals with music teachers’ use
and implementation of traditional grading scales (A, B, C, D, and F) when measuring student growth. Specifically, are music teachers using traditional grading scales as a way to communicate musical growth? What factors in a music class play a part in the grade a student receives? Most importantly, in situations where grades are given, are grades an actual indication of musical growth or do other, musically unrelated factors such as attendance or behavior play a role?

In many cases, music teachers are required to grade students at the end of each quarter and year as a way to communicate a vague standard of progress. During the data collection portion of this study, participants would sometimes bring up the subject of grades. While it was not a focus of this study, on a number of occasions, participants shared how they view grades as something they are required to do. Participants would go on to say that grades were not a strict measure of musical ability, but more of a formal ritual in which they were required to participate. In a music class, if grades are not a measure of musical ability, then what do they measure and why are they used?

The third and most important area for potential future research can be looked at as a two-part scenario. The first part deals with the transferability of the results of this study to other core subjects such as mathematics, language arts, social studies, and science, in addition to other performance-based areas such as fine arts, mechanical arts, physical education, and consumer sciences. This study suggests a situation where, during the process of measuring student growth in music, the specific, individual encounters between music teachers and their students are unique. As a result, this encounter requires a unique set of standards by which to measure student growth. If this is the case in music class, it would be interesting to look into whether or not it is also the case in other classes.
The idea of transferability to other subjects then leads to the second part of this scenario, which questions the need for a standardized grading scale. If the act of measuring student growth is a consideration of the individual student and an individual teacher, then the standard by which growth is measured in this type of encounter should also be individualized. Considering that student growth is inconsistent, and takes place at different rates and different times, what then becomes a reasonable expectation for growth? For example, how much growth should students show in an area such as tone? Among music teachers collaboratively setting standards, how much should students be expected to grow and how should music teachers make this type of determination?

A possible extension of the research conducted in this study deals with looking at ways to manage not only expectations for student growth in music, but also consistent methods of evaluation utilized by music teachers. For example, what conclusions could be drawn from studying student performance data at the beginning of the school year, and then comparing it to performance data collected at the end of the school year? Given the same collection of student performance data, what conclusions, if any, could be drawn between music teachers? If the group of music teachers in this example were all asked to rate the performance data on tone, what elements of the data would drive the group to conclusions?

In another example, language arts teachers could study collections of student writing data at the beginning of the school year, and then again at the end of the school year. Collectively, the teachers could come up with ways in which they feel student growth should be measured, and the standard to which students should be held. As with the example of music teachers evaluating tone, language arts teachers could consider
elements of writing such as sentence structure, grammar, or theme development.

Additionally, physical education teachers could look to further their understanding of reasonable growth expectations in areas such as motor skills and movement patterns, healthy personal and social patterns of behavior, and personal levels of physical fitness.

In all three examples, the collective group of teachers studying student performance data potentially achieves more consistent expectations of what constitutes appropriate measures of growth. It is important to note, in all situations where student data are examined, that conclusions drawn are specific to the students from which the data were collected. This is to say that teachers must always recognize that appropriate growth measures are determined primarily by the student and secondarily by the content. As often as possible, teachers should work together in examining student data that depict both the individual and the academic. Only after both components are considered can teachers develop and create appropriate measures of student growth.
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APPENDIX A

HUMAN SUBJECTS REVIEW BOARD APPROVAL FORM
Human Subjects Review Board Approval Form

TO: Brad Coco and Dr. Harold Wilson
FROM: Carol Reece, HSRB Chair
DATE: November 22, 2013
SUBJECT: Human Subjects Review Board Approval
PROJECT TITLE: How Do Music Teachers Measure Student Growth?
HSRB APPROVAL CODE: 10-09-13-#049

The Human Subjects Review Board has approved the research proposal you submitted. You may proceed with the project.

The primary function of the HSRB is to ensure protection of human research subjects. As a result of this mandate, we ask that you pay close attention to the fundamental ethical principles of autonomy, justice, and beneficence when establishing your research proposal. These ethical principles pertain specifically to the issues of informed consent, fair selection of subjects, and risk/benefit considerations.

If you have any questions, please contact me.

Sincerely,

Carol Reece, DNP, APRN-CPNP
Phone: 419-521-6877
E-mail: creece1@ashland.edu
APPENDIX B

PARTICIPANT INVITATION
Participant Invitation

Greetings,

My name is Brad Cocco. I am an assistant principal at Learwood Middle School in Avon Lake, Ohio, and am working to complete a doctoral program in Leadership Studies at Ashland University. Currently, I am working on my dissertation, which looks to find out more about how music teachers measure student growth.

I am looking for individuals willing to sit down and speak with me in a one-on-one setting in order to share thoughts and ideas. Sessions will be recorded (audio only), last about an hour, and your identity will be kept confidential. At no point in the study will you be identified by name, school district, or any other personal information. This is a completely voluntary process, and you are free to withdraw from the process at any time. If you are interested in taking part in this study, please email me back and I will follow up with more information on how to proceed.

Thank you for your consideration,

Brad J. Cocco
Ashland University
APPENDIX C

PARTICIPANT CONSENT FORM
Participant Consent Form

How Do Music Teachers Measure Student Growth?

PERMISSION FORM FOR
QUALITATIVE DISSERTATION

I, (participant) ________________________________, give permission to (researcher) Brad J. Cocco to interview me in order to conduct research for his dissertation work in the doctoral program at Ashland University. The dissertation is titled, How Do Music Teachers Measure Student Growth?

• Pursuant to the Human Subjects policies at the university, I understand that my name will not be used, that the interviews will be audio-recorded, and that all recordings will be kept in a secure digital file. At the conclusion of the study, the interviews will be deleted.

• I understand I may withdraw from this study at any time without penalty by informing the researcher that I wish to do so. If feel my rights have been violated in any way, I may contact Dr. Harold Wilson, the researcher’s advisor, via e-mail (hwilson@ashland.edu) or phone (419-207-5339). Additionally, I may call the Human Subjects Review Board (419-289-5342) with concerns.

• I understand that the results will not be used for commercial purposes and that the researcher will submit the completed study in a final paper and presentation in order to meet the requirements of the doctoral program.

(Signature of Participant) (Date)

(Signature of Researcher) – Brad Cocco (bcocco@ashland.edu)
APPENDIX D

INTERVIEW PROTOCOL
Interview Protocol

Introductions

Introduce purpose of interview (How Do Music Teachers Measure Growth?)

Q1 - Background question to establish information about participant

- Subject and grade taught.
- Years of experience.

Q2 - How do you measure student growth in the classroom?

Q3 - Can you give me more detail?/How did you arrive at that conclusion?

- Can you give me more specific examples?
- How well did it work?
- Why do you do it that way?
- What is the biggest challenge in that?
- Can you go into more detail for me?
- Can you give me an example?

Q4 - What has informed/shaped how you measure student growth?

- Repeat clarifying probing questions as necessary (Q3)

Q5 - If you could have it your way (in a perfect world), how would you measure student growth?

- Repeat clarifying probing questions as necessary (Q3)

Conclusion

- Reemphasize confidentiality

Thank you