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## Speaking Music: A Historical Study of Edwin Gordon's Music Learning Theory

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Speaking Music: An Historical Study of Edwin Gordon's Music Learning Theory

David M. Alfred

**Dissertation submitted to the  
College of Education and Human Services  
at West Virginia University  
in partial fulfillment of the requirements for the degree of**

**Ed.D. in  
Curriculum and Instruction**

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**Morgantown, West Virginia  
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## **ABSTRACT**

Speaking Music: An Historical Study of Edwin Gordon's Music Learning Theory

David M. Alfred

Music Learning Theory, conceived, researched, and developed by Dr. Edwin Elias Gordon, has been on the periphery of music education for decades and is the only extant comprehensive, theoretical framework that fully addresses the development of music literacy from early childhood through maturity. The concurrent research gap suggests that a Fordist approach may exist throughout music education- one that insists upon behavioral goals, direct instruction, and educational, artistic, and ideological exclusivity. This historical study elucidates Gordon's work in order to understand the stages and processes that are like spokes of a wheel between his idea of audiation at the core and Music Learning Theory on the outer rim. Conclusions bring Gordon's concepts within Music Learning Theory to the fore to address this potential gap in practice and exclusion in music education by revealing the theory's usefulness in explaining how learning occurs while guiding instruction and individual student progress. The information gleaned is practical and displays Music Learning Theory as a possibility for all forms of music education but particularly for instrumental instruction. It represents possibilities in music instruction beyond those associated with traditional teaching and application of musical concepts and skills.

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## Chapter 1 Introduction

In the bottom of a box, somewhere in this 18<sup>th</sup> century Folk Victorian home, is a cassette tape from 1972 where I can be heard singing as my mother accompanies me at the piano in her classroom at Rayon Elementary School. The singing is nauseatingly cute for the eager three-year-old I was and almost professional in presentation. Only the fact that I could not pronounce the letter *r* gave me away. *I'd like to teach the world to sing in pehhfect hahmany*- I had learned it from a soda commercial and wanted to sing it. There had not been a rehearsal- she played an intro and it fell into place. She did not initially know I had recorded it since I commandeered that new technology the minute she had it. I could still tell you the distinct tonality, keyality, and sonic texture of that commercial nearly fifty years later.

By the time I entered junior high school at the beginning of the next decade, aside from tv jingles, I was intimately familiar with Johann Sebastian Bach and all the four-part singing, liturgy, and organ music that comes with being the son of a second generation, Lutheran church organist. We did not miss a single mass! I knew it all by ear, still can recognize it, and do not necessarily know many of the actual titles. Imagine my mother's surprise when I began playing *her* music... and it had never left her bag. She was somewhat disturbed when I began to play fragments in other keys as well. I was also exposed, over my short 12 years, to Scott Joplin ragtime, the entire George and Ira Gershwin catalog, and every song Burt Bacharach ever wrote. I assumed that every kid knew those things too.

Early adolescence was cruel for all the reasons one thinks it may be but at least a little more so for me. My peers were listening to the likes of Olivia Newton-John, the Go-Gos, and Rick Springfield. I, on the other hand, did not know too much about pop music and my peers let me know it the first and every subsequent time I could not sing along. Our family car, a

shiny blue 1977 Cutlass sedan, had only an AM radio. Whether in the car or at the house, I looked for AM stations and had spent those formidable years listening to Big Band Jazz and R&B. I knew every Dionne Warwick; Aretha Franklin; Earth, Wind & Fire; and Michael Jackson song coming and going. I could tell who the singer was from the first syllable, knew the song forms, and could sing all of the harmonies too. I could even intone the starting pitch from recollection. This exposure continued to inform me from within.

Not too long after, I found myself in a college freshman music theory course. While I could do the work, it all seemed too much like math and disembodied science. It was in no way attached to music I had experienced. The associated examples, I did not know or grasp, even if they were first played from an LP for the class. However, the correlating sight-singing course was so simple for me that I only attended on quiz days for two entire years and, with extra credit, had well over a perfect average throughout. The upper level courses, though, were much more demanding and the instructors were knowledgeable and incredibly proficient. Two of them were former students of music educator Dr. James Froseth at the University of Michigan.<sup>1</sup> Coursework included rehearsal techniques, learning modalities and instructional approaches, curriculum and program development, multi-instrument proficiencies, recruiting practices, and ensemble conducting. Students were specifically trained to search out talented students either through testing or observation in the early grades, to build an instrumental regimen, and to follow it for sustained success. Of course the overall instructional model throughout central Ohio and much of the country, no doubt due to collegiate hegemony, remains the competitive marching band.<sup>2</sup>

By the time the new millennia was well under way, I completed my 10<sup>th</sup> year of teaching middle school band and had reasonably stellar results by almost any comparison. The

students performed great concerts, sight-read well, and blazed a lengthy trail of Superior ratings and other awards. Community members could not believe they were witnessing thirteen-year-olds! However, by the end of that decade something began to shift. Almost exponentially, the regimen I had successfully developed and nurtured was breaking down- and students were leaving my classes for those courses that were potentially less demanding. If competition was the past lure, it no longer was working and the decline in skills, particularly in those matriculating from elementary to middle school, was becoming more and more evident. From all I could decipher, the students no longer had any modicum of a shared, prior music experience and had increasingly less and less command over music content. They responded well to rote teaching but bored easily of it. They could count rhythms of songs, even brilliantly at times, but could not transfer the knowledge to the next piece of music played.

Encouraged by peers, I became one of the country's first teachers to achieve the prestigious National Board Certification in Early Adolescent through Young Adulthood Music specializing in instrumental/band. The certification is the gold standard of teaching proficiency in the United States. The certification's portfolio process required that I demonstrate student achievement not by ratings or competition results but rather by how particular learning episodes informed instruction and improved student musicianship. Heavy emphasis was placed on instructional assessment- something I apparently knew very little about even though I had also earned a master's degree in education years earlier. Subsequently, I learned effectively how to isolate skills and determine evaluative tools from a formative perspective. This invigorated my teaching as I looked for unique instructional opportunities that influenced my students' playing, and worked diligently to support the education cycle. The process could not let students fail and I believed in it! However, I still could not effectively identify or address

the marked decline in student development that began in the prior decade.

After I achieved this certification, I was obliged to do a presentation on symbol recognition and employment with the special education chair from my school. This took me into English/Language (E/LA) Arts classes for observation and even caused me to effectively integrate some instructional strategies from E/LA special education into my own band instruction. One of the things that I quickly discovered was that some teachers had established little or no context for their reading content, had issued spelling and vocabulary tests of greater or lesser length based on student reading levels, and, in some cases, had failed entirely to utilize isolated, assigned vocabulary in any way outside of the text. The students then were reading *The Outsiders* by S.E. Hinton and the teacher was clearly, entirely captivating if not altogether fervent about the story. After an extensive evaluation of the episode with my presentation colleague (because I was not initially sure I had seen anything questionable), I realized what I had been observing all along in that classroom. The instructor was teaching literature, not literacy, and endeavoring toward aesthetic appreciation, not esteem related to skill development. I moved significantly closer, almost in that moment, to potentially understanding what was happening in my classroom.

By 2010, my evolving interest in effective music instruction had reached a new peak and, after all of the pieces had fallen into place, I took a year-long sabbatical to start a new degree and position as a graduate assistant in music education at a university nearby. There, I had great opportunities to review symbol decoding and comprehensive musical approaches to undergraduate students. It seemed to be some kind of answer to my quest to better understand music instruction. In my final semester in residence, I was required to take a course in advanced instrumental methods. Any courses I had taken on the topic several years prior,

during my own undergraduate years, had included course packs developed by instructors that included their thoughts, research, related articles, and correlating assignments. I had certainly seen published instructional materials for band directors throughout my career including *Teaching with Passion, Purpose, and Promise* by Peter Loel Boonshaft (2010) and the *Teaching Musicianship through Band* series edited by Richard Miles (published from 2009 through its 11<sup>th</sup> edition in 2017). This particular course instructor, however, required a text entitled *A Sound Approach to Teaching Instrumentalists* (1997) by Stanley Schleuter from Kent State University. The text provided a thorough basis for music instruction, evaluating several different methodologies and approaches. I first encountered the name, Edwin E. Gordon, in late winter 2011. Buried in the text in a short description of his Music Learning Theory was the word *audiation*.

Bolstered by this discovery and empowered by a near-instant paradigmatic shift from emphasis on teaching to emphasis on learning, I completed my graduate assistantship and university residency and returned to the middle school, travelling nightly to graduate classes over the next several years. Daily, my own students encountered experiences in movement, pattern development, and notational audiation (specifically writing things they were hearing musically). Achievement seemingly exploded as I paid little attention to and gave no credence at all to the competitions and ratings festivals in which we still partook. After all, those things could be evidence of instruction but they were no longer the motivation for and certainly had no impact on it. I knew something profound had changed when, once while following students to their next class (as I walked beyond to the main office), I overheard one say to the other, “Don’t tell Mr. Alfred your birthday is tomorrow. If you do, he will have us play *Happy Birthday* in 14 different keys!” For me, it is not that the student said this that makes it

important or even that there are not really 14 different major keyalities; it is that the students were capable and I absolutely would have played the song in a few different, related keys in order to develop their audiation skills (and wish a class member a happy birthday)! With the little I understood, at that point, about Dr. Gordon's work and how it actually affected instructional outcomes and directly addressed skill development, I needed to know much more. What is Gordon's Music Learning Theory and how may it be effectively utilized for instrumental music education?

## Background

### *Edwin E. Gordon*

Music Learning Theory was developed by Dr. Edwin Elias Gordon (b. 1927 – d. 2015).<sup>3</sup> According to the Gordon Music Institute for Learning website, Gordon is “widely remembered as a researcher, teacher, author, editor, and lecturer. His work have been featured nationally on the *NBC Today* show, in *The New York Times*, and in *USA Today*.”<sup>4</sup> Music Learning Theory was first published in 1967 as a supplement originating from music class lessons that Gordon taught<sup>5</sup> in the laboratory schools at The University of Iowa. He states, “it became clear to me that students were not ready to learn what most music teachers were trying to teach them, nor were many music teachers teaching substantial material.”<sup>6</sup> Gordon observed that the objective was to make students into technicians and not musicians.<sup>7</sup> Gordon submits that, “In a short time it became apparent that without the knowledge of how to adapt instruction to the individual musical differences among students, any type of sequential instruction, and especially that based upon music learning theory, would yield less than optimum results.”<sup>8</sup> Gordon further posits, Instrumental and choral teachers were preoccupied with having students memorize music for the purpose of performing at concerts, contests, and festivals, and the majority of their students were not taught to understand what they were performing. . . I was aghast to discover that, when stopped before they were able to complete a composition, so few students could sing or play the tonic or tell whether the music was in Major or Minor tonality, let alone deduce the tonal modulation had taken place,<sup>9</sup>

and,

Teachers were so busy teaching that they had no time and seemed to have no desire to consider the role of learning. I wanted to gather information on how we learn when we learn music, or, in current terminology, how audiation is developed, and sustained.” The quarterly journal on teaching and learning.<sup>10</sup>

Grunow reveals that Music Learning Theory originated in the need for “practical applications for adapting instruction to students’ individual musical needs.”<sup>11</sup> According to Mark and Gary, it was Gordon’s belief that “any human develop[s] musical traits if exposed to the proper experiences...”<sup>12</sup> Gordon thus became driven by the potential of objective research in music psychology, now called Music Learning Theory, that focuses on learning music as opposed to *learning about it*.<sup>13</sup>

Gordon’s ideas finally materialized when he was a faculty member at the University of Buffalo, later solidifying during his tenure at Temple University through summer seminars and the establishment of the aforementioned Gordon Institute of Music Learning. Gordon describes the institute as “a nonprofit organization dedicated to advancing research in music learning and music aptitudes, with the ultimate goal of improving music education for teachers, students, and parents.”<sup>14</sup> A past editor of *Studies in the Psychology of Music*, Gordon also held faculty appointments at the University of South Carolina and presented throughout the world. His primary interests were research in the psychology of music, music aptitudes, Music Learning Theory, improvisation, and audiation which was at the epicenter of Music Learning Theory from its conception.<sup>15</sup>

*The Psychology of Music Teaching*, published in 1981, was the first music education book that organized general learning principles and presented them as a Music Learning Theory.<sup>16</sup> Of his work, Gordon opines: “I’m trying to go on from where music education got

stuck fifty or seventy-five years ago. We've been in the cul-de-sac. We've been chasing our tails with recreational programs and entertainment programs.”<sup>17</sup> Music Learning Theory was first applied to instrumental music by Stanley Schleuter and James Froseth (two of Gordon's former students at the University of Iowa) through Schleuter's work and Froseth's publications including his *Individualized Instructor* series.<sup>18</sup>

Gordon's works include *The Psychology of Music*, *Learning Sequences in Music*, *The Nature Stage*, *Description, Measurement and Evaluation of Music Aptitudes*, and *A Music Learning Theory for Newborn and Young Children*.<sup>19</sup> Other publications are: *Introduction to Research and the Psychology of Music*, *Rhythm: Contrasting the Implications of Audiation and Notational Preparatory Audiation*, *Audiation and Music Learning Theory*, *Designing Objective Research in Music Education*, *Rating Scales and Their Uses for Measuring and Evaluating Achievement in Music Performance*, *Improvisation in the Music Classroom*, and *The Aural Visual Experience of Music Literacy*.<sup>20</sup> Music Learning Theory is an important by-product of Gordon's development of these publications.<sup>21</sup>

### *Music Learning Theory*

Music Learning Theory is a comprehensive framework that allows instruction to be adapted toward student developmental needs.<sup>22</sup> It is supported by psychological study in and outside of the field of music.<sup>23</sup> Three areas of current research support it, including,

1. Understanding of the young child's music development during the Babble Stage
2. Describing and explaining of the nature of developmental and stabilized music aptitudes
3. Describing and explaining the nature of the audiation process<sup>24</sup>

Described in *Music Educators Journal* as one of five major approaches to music education, Music Learning Theory explains what a student needs to know in order to be ready to audiate, and



provides techniques for teaching audiation. The theory can help teachers to plan music instruction in what Conway calls a “logical, sequential way.”<sup>25</sup> Music Learning Theory, as Shuler describes, is “the structuring of the logical order of sequential objectives which include the music skills and content that students must learn in order to achieve comprehensive objective music appreciation.”<sup>26</sup>

### *Understanding Learning*

In attempting to discern how music learning actually occurs, Gordon states he originally sought to understand learning theories through specific emphasis on the work of psychologist Robert Gagné (b. 1912 – d. 2002). Subsequently, Gordon became “intrigued specifically with whether and how Gagné’s *Verbal Association* could be applied to music learning.”<sup>27</sup> Gordon then based his emerging learning sequence on Gagné’s *Conditions of Learning* postulated in 1965, connecting the two in 1971.<sup>28</sup> Grunow compares the two constructs in figure 1.1.

Gagné's Eight Levels of Learning	Gordon's Application to Music Learning
PERCEPTUAL LEARNING	
1. Signal Learning	1. Simple perception of sound
2. Stimulus-Response Learning	2. A musical sound--the response which it elicits from the listener
3. Chaining	3. One response becomes the stimulus for another response, etc.
4. Verbal Association	4. Spoken or written descriptions are used to identify responses (i.e., names of lines and spaces, time-value names of notes, and the names of key and meter signatures).
CONCEPTUAL LEARNING	
5. Multiple Discrimination	5. The ability to differentiate aurally or symbolically between major and minor, duple and triple, etc.
6. Concept Learning	6. The ability to transfer and generalize multiple discrimination understandings to unfamiliar music.
7. Principle Learning	7. Understanding of a theoretical nature (i.e., duple and triple meter in terms of note values, etc.)
8. Problem Solving	8. Basically the same as principle learning; both form the bases for creative thinking.

Figure 1.1. Comparing Gagné to Gordon, from Richard F Grunow, "The Evolution of Rhythm Syllables in Gordon's Music Learning Theory." *Quarterly Journal of Music Teaching and Learning* 3, no. 04 (1992): 100.

Gerhardstein summarizes the Gagné-Gordon connection:

1. Gagné's principles are clearly present in the Music Learning Theory framework, including a focus on observable behavior.
2. Avoiding vague objectives such as *appreciation* while concentrating on measurable performance objectives
3. The identification of objectives that deal with the smallest possible units of performance, in this case tonal and rhythmic patterns and the recognition of component or subordinate objectives that Gordon calls *sequential* objectives that lead in stepwise fashion to larger-scale objectives, which Gordon calls *comprehensive* objectives<sup>29</sup>

It must be noted that Gordon could not apply all Gagné's conditions to his theory.<sup>30</sup>

Bluestine states that Gordon also applied psycholinguist Frank Smith's (b. 1928) work to his emerging framework including "*Information-processing Theory*, which states that the human brain actively seeks, selects, acquires, organizes, stores, retrieves and utilizes information about the world," and the *Psycholinguistic Approach* that considers how students learn, use and "predict the meaning of the text they are about to read without necessarily predicting specific words."<sup>31</sup>

Biographer Ronald Gerhardstein claims that Gordon also related audiation to Lev Vygotsky's (b. 1896 – d. 1934) work on the connection of thought and language and, similarly to music patterns and audiation, the manner in which words and meanings are inseparable.<sup>32</sup>

### *Present and Future*

Music Learning Theory remains a factor in music education as teachers, searching for alternatives in teaching rationale, have discovered it. Kay states that this has come about due to "a reinterpretation of the nature of intelligence, a national interest in accountability in education, national standards that call for every student to achieve basic music skills, and new research about the correlation between music skills and higher achievement in music and other disciplines," due to Gardner's 1983 proposal of "a *Theory of Multiple Intelligences*, one of them musical intelligence," and finally, due to a number of studies indicating "that music training may be more valuable to the development of general intelligence than previously theorized."<sup>33</sup> According to Gordon (in Kay),

The purpose of music education is to provide students with musical understanding through audiation so that they can learn to perform and to respond aesthetically and to use symbolic representations of their and other's aesthetic feelings to the extent that their music aptitudes will allow.<sup>34</sup>

## Methodology

From historical study in music education, we learn about contributions to the field including program models and the life and proliferation of organizations and institutions dedicated or critical to the profession. Trends and practices also form historical study as well as foci on populations, groups, subcultures, and sociological perspectives of music as it transcends politics and society across history, itself.<sup>35</sup> Historical review, as its own focus, and also the review of curriculum methods and materials are acknowledged types of regular publications within the *Journal of Historical Research in Music Education* (since 1980).<sup>36</sup> Cox states, “The trend to use findings from the past to inform problems and issues in the present day is noteworthy,” and McCarthy furthers that, “this approach brings the past into the present and makes vital connections between past, present, and future.”<sup>37</sup>

Across its century-old existence,<sup>38</sup> historical research has delineated and made plain many, but certainly not all, aspects of music education. It is the role of historical research to fill gaps in the academy through the formation of specific, historical inquiries.<sup>39</sup> Such research in music education is the systemic review of institutions, practices, and teaching “moving in perceptible form expressive within a context.”<sup>40</sup> Heller and Wilson hold that the importance of knowledge within the field makes critical the historical review in providing,

1. A better understanding of the present
2. A richer basis of information
3. A more complete record
4. A more accurate accounting of what has taken place
5. A clearer explanation of complex ideas<sup>41</sup>

Historical study has the potential to reveal what has been obscured in the past. It illuminates thoughts and positions that “have been abandoned or neglected by later generations.” The historian “seeks to restore a lost world, to recover perspectives and ideas from the ruins, to

pull back the veil and explain why the ideas resonated in the past and convinced their advocates.”<sup>42</sup> Vast cognitive schemes such as Music Learning Theory may have been obscured over the last half century but, through data collection, cannot be evaded.<sup>43</sup>

Since historic study is much more than a chronology and “not about a story as much as it is about interpretation and analysis,” according to Lapan et al., there will be an element of subjectivity where conclusions are made about the “who’s, what’s, how’s, and why’s”<sup>44</sup> of Music Learning Theory. Accordingly historical, scholarly work is always open to re-interpretation and, for researchers, “the case is never closed.”<sup>45</sup> Research studies such as this may lead to many possibilities in the field by informing readers of how a particular [learning] model has persisted through time so that this content, or truth, may become the basis for challenging existing conclusions about prior research and, as Turrentine states, making “intelligent decision[s] on which future action may be taken.”<sup>46</sup>

Historians must bear a familiarity with the body of knowledge in order to reveal ideas and concepts existing in different or varied situations.<sup>47</sup> This content knowledge is critical as it leads to new considerations or illuminations of the elements within the record.<sup>48</sup> Further, an element of imagination may be necessary to conceive of earlier contexts as opposed to *presentism* where those events may be judged not in their own right but through contemporary standards or values.<sup>49</sup>

Beginning in *my own backyard* through the review of information already close at hand, this historical study of Edwin Gordon’s Music Learning Theory is a purposeful one that encompasses the ideas, emergence, and influence<sup>50</sup> of Edwin Gordon’s theories upon music education. The unique moments [of Gordon’s work] are comprised of circumstances that provide context that may lead to comprehension in the present.<sup>51</sup> Further, by reconstructing Gordon’s

views with what may be known about Music Learning Theory, Whatmore provides, “We may gain knowledge of [his] sophisticated thoughts that may challenge certain philosophies and practices of our time and not be required to choose between them.”<sup>52</sup> According to historian Leslie Stephens, this is how the proverbial *torch* is passed.<sup>53</sup>

### Method

This systematic investigation of ideas, their applications and connections, gives rise to historical analysis as an appropriate method.<sup>54</sup> Marked by an interdisciplinary nature that well suits this inquiry, the historic method is facilitated by the rejection of positivist approaches in several academic areas.<sup>55</sup> Accordingly, this change in view resulted in part from a movement away from the idea of history as a singular set of facts and truths to a view of history as a set of perspectives that can be re-examined and revised.<sup>56</sup> Gordon’s intentions must be sought for his writings in order to comprehend them, and his use of language must be clarified.<sup>57</sup> His constructs, Froehlich and Frierson-Campbell contend, “matter as first order information revealing things that cannot be described except by referring [directly] to them.”<sup>58</sup> Thick, evocative language will then capture the strata of hierarchical ideas and applications.<sup>59</sup> While “traditional approaches to history tend toward dispassionate reporting,” a modern approach will capture the author’s voice and worldview. This represents a shift from chronological reporting to displaying the past as an array of perspectives that can be reviewed more than once.<sup>60</sup> This progressive research view endeavors forward to illumine Gordon’s efforts, in this case, of music education, across the years like a trip through time with a resultant rich narrative.<sup>61</sup> Knowledge gained from historical review may deepen self-knowledge within, particularly, the individual music educator and the profession, and “serve to inform present problems with the wisdom

gained from past experience.”<sup>62</sup> Historical research demands both the rigor of the scientific method and the humanistic qualities needed to interpret the significance of events and actions of persons and groups in the context of time, place, and culture.<sup>63</sup>

*External criticism* is not so much a challenge for documents of the current era as they are for much earlier time periods because dates of origin, consistency with other sources, and legibility of handwriting are either not in question or not pertinent.<sup>64</sup> Froehlich and Frierson-Campbell detail, however, that *Internal Criticism*, calls the questions,

What motivated the author of the information to produce this statement/image/object? What is the author's role in relation to the information provided? Are facts included in the piece consistent with other writings of the time period? Does the author show bias in the way thoughts and ideas are expressed? Are the stated thoughts and ideas consistent with other writings by the same author? What is the evidentiary value of the content? Can this evidence be corroborated with evidence from other sources?<sup>65</sup>

Felt (in Froehlich and Frierson-Campbell) provides the concept of *veracity* in analyzing “the relationship between the person providing the evidence and the subject under study,” as a process to gauge primary sources in their *competence*: “if the witness is capable of understanding and describing the situation, shows impartiality, or has something to gain from distortion of the record.”<sup>66</sup>

It is possible for researchers to become engaged in tangential topics related to the study’s purpose but minimally related to the research. Sources must be relevant in that they have a meaningful connection to the unfolding story. The data must contribute to the overall picture, increase the variety and number of contributing pertinent voices, and conceive varying standpoints. In studying the life [or life’s work] of one person, multiple voices may be found, for example, in various roles that the individual played in her profession over her lifetime.<sup>67</sup>

Froehlich and Frierson-Campbell point out that two sources of evidence will inform

interpretations and conclusions: primary sources, what Danto (in Froehlich and Frierson-Campbell) calls “the gold standard of historical research” that frame the epoch in question and witness the intellectual processes, and secondary sources, not having necessarily directly lived the examined event(s), but providing information that is particularly descriptive of them.<sup>68</sup> Dr. Gordon’s ideas are relayed primarily through his own works but additionally through the associated works of former students, Stanley Schleuter, Maria Runfolo, Clark Saunders, Art Levinowitz, James Jordan, and Cynthia Taggart, collaborators, Richard Grunow, Christopher Azzara, Eric Bluestine, Colleen Conway, Bruce Dalby, Diane Lange, Michael Mark, and Bruce Taggart, GIML current and past faculty, Suzanne Burton and Judy Palac, and Gordon biographic researcher, Ronald Gerhardstein. Although secondary sources do provide data, they do not speak directly about the past.<sup>69</sup>

This examination brings into focus a more complete picture of Gordon’s ideas within and surrounding his postulate Music Learning Theory. The academic aim is that this study will be beneficial in praxis and, as Heller and Wilson state, “educate or inform. . . , inspire or motivate. . . , unify or organize”<sup>70</sup> within instrumental music education and, perhaps, beyond. The unfolding progression of Gordon’s concepts and investigations trace a path from origination in the late 1960s through initial synthesis, development, application to instrumental music, and beyond.<sup>71</sup> Dunn and Skinner (in Whatmore) identify that the subject’s intentions be the primary guide to the nature of the text with the historian endeavoring to reveal “what the author was doing, intended to do and succeeded at doing.”<sup>72</sup> The resultant research narrative will consequently be organized by themes largely determined by the outward spiraling of Gordon’s own intellectual growth and development but certainly with chronological elements interspersed. As relayed by Froehlich and Frierson-Campbell, conclusions will be detailed,



“empathetic and critical of evidence,” supporting each by “multiple sources and argued by reason.”<sup>73</sup>

## Chapter 2 Music Learning Theory

Jordan contends that Music Learning Theory is a construct “for the sequential teaching and learning of music” for teachers to “[approach] music appreciation through music understanding and . . . measurable performance,” as Shuler adds, thus equipping instructors with rapid means to solve musical problems while instructing with efficacy.<sup>1</sup> Gordon elaborates, “Music Learning Theory has three parts: skill learning sequence, tonal learning sequence (which includes tonal pattern learning sequence), and rhythm learning sequence (which includes rhythm pattern learning sequence).”<sup>2</sup> A progression of ordered types and stages “provides a framework within which a director can readily diagnose and solve problems,”<sup>3</sup> Gordon explains, so that students may generalize their learning to new music.<sup>4</sup> However, it is not a music method, a process or a particular teaching approach but rather a paradigm resulting from critical thinking and research.<sup>5</sup> Gordon intimates that a method “refers to why we teach, what we teach, when we teach it,” and is bound by the teacher’s personality and the characteristics of students.<sup>6</sup> Bluestine furthers that, “a learning method is a step by step series of objectives that you actually write down and plan to accomplish; and teaching techniques, classroom materials, and musical examples help you to carry out and achieve your objectives,” whereas Music Learning Theory is “something you think about.”<sup>7</sup>

The focus of Music Learning Theory is appropriate rhythmic and tonal music sequencing in instruction.<sup>8</sup> These allow for a foundation of comprehension to form as students listen to and perform music.<sup>9</sup> “The fundamental premise of Music Learning Theory,” Gordon elucidates, “is that one cannot efficiently or adequately give meaning to music that he is listening to, performing through recall or notation, or performing through improvisation or creativity unless

he can audiate,” or, as Azzara adds, “[hear and comprehend] music when the sound may or may not be physically present.”<sup>10</sup>

Music Learning Theory is a theory (or group of theories) that seek(s) to explain how music is learned, detailing the process, not the music which is produced.<sup>11</sup> The theory specifically addresses how skills are acquired and, therefore, how they should be taught.<sup>12</sup> Gordon concedes that there is no one best way to teach music nor does research proclaim a singular method.<sup>13</sup> However, because of the open-ended nature of its paradigm, Music Learning Theory lays the groundwork for a myriad of teaching and learning settings.<sup>14</sup> This learning is a balance of teacher guidance with student interests that honors young musicians’ ideas and initiatives and is based on a deliberate teacher-led combination of content and skill learning sequencing.<sup>15</sup> Music Learning Theory details what students need to know and do to advance to higher levels of musicianship. “It provides students with keystones for understanding what they are being taught.” No matter what individual differences may exist, learning occurs between levels as each grouping of experiences provides readiness for the next, higher level.<sup>16</sup>

Various teaching methods may be derived from Music Learning Theory that support its sequential structure- its most special attribute. However there can be no guarantee that simply aligning instruction with the sequence will ensure students will learn exactly as intended. No matter the case, reinforcement is possible through moving backward in the sequence and reviewing and then skipping or sequentially moving forward again.<sup>17</sup>

## Learning Explained

“Music Learning Theory” Gordon states, “is intended to explain how one learns when one learns music skill and music content,” including modes and scales for tonal content and meters for rhythmic content. Music Learning Theory provides a framework that is brought together through the sequential ordering of content instruction.<sup>18</sup> Norman holds that Music Learning Theory is extremely important in providing the structure that hones musical skills in students and further develops that of their teachers. Students taught via Music Learning Theory learn to: “sing and eventually play songs and root melodies (the chord-root underpinnings of the harmonic structure) for those songs by ear, singing them first using a neutral syllable and then by associating tonal or rhythm syllables to the patterns in the song. Eventually, they learn to generalize what they have learned by rote from the familiar patterns to unfamiliar patterns and songs.”<sup>19</sup> Stamou clarifies that generalization “forms the foundation upon which children build in developing independent, creative musicianship.”<sup>20</sup>

### *The Case for Music Learning Theory*

Gordon contends that the purpose of the development and delivery of music learning sequences must be to teach students to read and perform music . . . [and] to play by ear and improvise as important extensions of an essential student skill set.<sup>21</sup> The case for the importance of such a sequence is perhaps best made by Schleuter who avows that inappropriate teaching sequencing leads to instrumental music performance that is “analogous to typewriting series of words without understanding [any of] the language” they represent.<sup>22</sup>

## Music Learning Theory: A Language With Multiple Vocabularies

Music Learning Theory, derived from innate learning processes, may be best explained by comparison to human language acquisition because the processes are similar.<sup>23</sup> Gordon claims that audiation is synonymous to thought in language.<sup>24</sup> Music, then, is sound that has been given meaning. What meanings are derived then, like language, depend on the occasion and the intentions of the giver.<sup>25</sup> Gordon finds that,

Language is the result of need to communicate. Speech is the way of communication. Thought is what is communicated. Music, performance, and audiation have parallel meanings. Music is the subject of communication. Performance is the vehicle for communication. Audiation is what is communicated.<sup>26</sup>

and,

Music, like English, has aural, oral, and visual dimensions. One hears English spoken and one hears music performed; one speaks English and one performs (speaks) music vocally and instrumentally; and one reads and writes English and one reads and writes music. Without endeavoring to suggest that music is a language, universal or not, it is useful to parallel the process of learning a language to that of learning music.<sup>27</sup>

In mastering any language, Azzara reminds, “One must be able to speak in that language.” So, in audiating music, one understands it.<sup>28</sup> In correlating audiation to speaking, Gordon claims, “One momentarily thinks of what will be said. Sequence, order, and grammar are not imagined yet the sentences flow when spoken.”<sup>29</sup>

## Skill Levels and Stages

Music Learning Theory includes two generic skill levels: Discrimination and Inference.<sup>30</sup> Schleuter furthers, “Discrimination Learning takes place when students perform a music task to correspond to the teacher’s performed example;” it is rote learning.<sup>31</sup> In other words, teachers actually give the correct answers and students are guided to compare them.<sup>32</sup> Schleuter describes, “Discrimination [Level instruction is] mainly concerned with the taking in of information or

perceiving, and the development of a vocabulary that facilitates audiation. Discrimination learning occurs within the familiar and the known.”<sup>33</sup> In Discrimination Learning, students are aware of what they are being taught but do not necessarily understand what or why.<sup>34</sup> The entire learning skills sequence, including Discrimination and Inference Learning levels, for first reference, may be seen in figure 2.1.

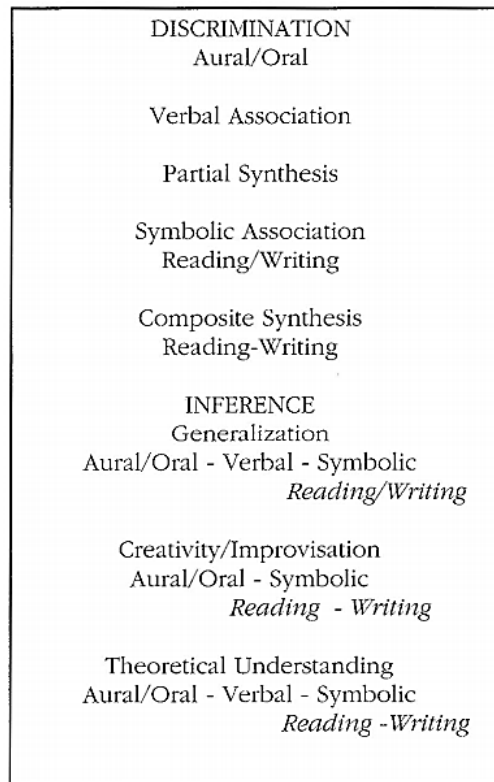


Figure 2.1. Music Learning Theory skill learning sequence, from Richard F. Grunow, “The Evolution of Rhythm Syllables in Gordon's Music Learning Theory.” *Quarterly Journal of Music Teaching and Learning* 3, no. 04 (1992): 100.

### *Discrimination Learning vs. Inference Learning*

Discrimination Learning precedes Inference Learning so that students have the content before they do the thinking about it. Inference Learning then is when students complete music performance tasks that they’ve not first rote-learned; Inference is self-thinking as young musicians inform themselves with guidance from instructors.<sup>35</sup> Schleuter contends, “Inferential

learning is “recognizing what is not known [that] is identified by what is known,”<sup>36</sup> as Jordan furthers, by “[making] broader generalizations and [drawing] conclusions from what has been previously studied;” it is conceptual.<sup>37</sup> By 2001, Gordon further theorized sublevels to the stages of Inference Learning with each becoming woven into the next higher level and its sublevel(s) through circular activity.<sup>38</sup>

There are five stages of Discrimination Learning: Aural/Oral, Verbal Association, Partial Synthesis, Symbolic Association, and Composite Synthesis with the lowest three stages serving as readiness for the two upper two stages<sup>39</sup> as shown in figure 2.1. Discrimination Learning is primarily rote learning through which the student develops a vocabulary of familiar and unfamiliar tonal and rhythm patterns in familiar and unfamiliar order in familiar meters and tonalities.<sup>40</sup> Prior to this, students only hear music as it exists: holistically.<sup>41</sup> The Aural/Oral Stage, the lowest, most elementary level, lays the groundwork for future learning as students first listen to, then perform individual tonal and rhythm patterns on neutral syllables through singing, playing, and movement.<sup>42</sup> In other words, hearing music initiates the aural process and singing, the oral process.<sup>43</sup> Students may be exposed to a pattern repeatedly in the aural process.<sup>44</sup> They will then sing it or chant it in oral activity. This learning cycle lays the foundation for audiatonal development. The extent to which this development occurs is depends on individual differences in music aptitude but also on development of tonal and rhythmic pattern vocabularies at the Aural/Oral Stage.<sup>45</sup> Teachers chant patterns- the critical segments within music that make the whole; students are drawn toward recognizing the segments through imitation as they develop music vocabularies of their own.<sup>46</sup> Aural/Oral patterns are short, the tonal patterns consisting of 2-3 pitches, and the rhythmic patterns of two to four beats. The teacher sings tonal patterns on neutral syllables without rhythmic context, and students imitate them. Rhythmic patterns are

chanted on neutral syllables without pitch and echoed back.<sup>47</sup> In figure 2.2, Gordon provides information on lower stage assimilation in Music Learning Theory.

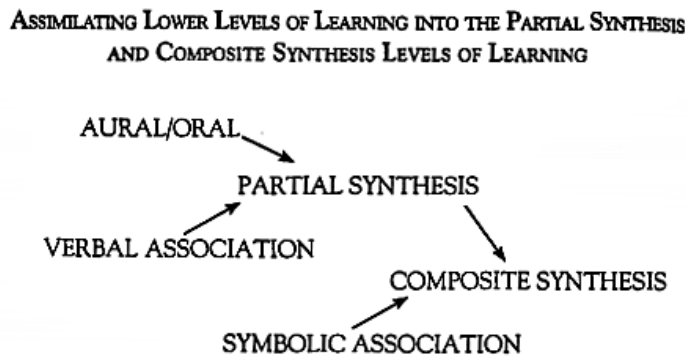


Figure 2.2. Assimilating lower levels into Composite Synthesis, from Edwin Gordon, *Learning Sequences In Music: A Contemporary Music Learning Theory* (Chicago: GIA Publications, 2007), 112.

#### Aural/Oral

At the Aural/Oral Stage, tonal patterns are demonstrated without rhythm and rhythm patterns are demonstrated without tonality so that students may focus on these elements individually to develop internal musical meaning.<sup>48</sup> Mark and Madura reveal, “Tonal patterns and rhythm patterns are to music what words are to language. In language the more words children have in their language vocabulary, the better able they are to comprehend the conversations they hear.”<sup>49</sup> Tonal and rhythmic pattern instruction through individual and ensemble singing and chanting reinforces listening in the Aural/Oral process up to but not beyond over-repetition that compromises learning.<sup>50</sup> This occurs because, as the brain, a pattern-making device, searches out sameness in comparison to stored pattern, only learns when it encounters difference.<sup>51</sup>

Movement occurs at the Aural/Oral Stage in response to music and communicates information to the brain about tempo (or speed of the *macro-beats*) within a musical excerpt.<sup>52</sup>



According to Gordon, “Free-flowing, continuous movement improves intonation, improvisation and creativity as well as gives musical specificity to tempo and meter.”<sup>53</sup> Gordon warns music educators that skipping movement activities in an effort to move students immediately to counting and/or reading music causes students to demonstrate knowledge about the music but not to audiate.<sup>54</sup> Listening and singing along with movement are required along with the ability to “discriminate specific perceived elements [such as musical texture, dynamics, or instrumentation],” Jordan notes.<sup>55</sup> In this way, intrinsic meaning is given to music and its elements.<sup>56</sup>

### Verbal Association

Verbal Association, the second stage, is where students learn to associate vocabulary names and proper names with the patterns have learned at the prior stage.<sup>57</sup> In particular, vocabulary names refer to solfege or verbalizations referencing pitch or rhythm notation.<sup>58</sup> Palac furthers, “Through serving merely a labeling function at this level, solfege [tonal and rhythm labeling syllables] will provide the basis for understanding of tonal and beat functions at upper levels.”<sup>59</sup> Gordon’s ideas about solfege will be extensively discussed in Chapter 7. At the Verbal Association Stage, internal meaning is brought forth while proper names become labels for tonality (such as *major* and *minor*), tonal function of patterns (such as *tonic* and *dominant*), meter (such as *duple* and *triple*), and the rhythmic function of patterns (such *macro-beats* and *micro-beats*).<sup>60</sup> External meaning emerges as well including time-value names, interval names, and solfege but cannot stabilize until internal meaning has been established. Context must be understood at the Aural/Oral Stage before Verbal Association can occur.<sup>61</sup>

The Verbal Association Stage serves the purpose of providing an avenue whereby, according to Mark and Madura, students may “organize the patterns they hear and audiate” without musical notation; this facilitates their mental classification, memory, retrieval, and synthesis.<sup>62</sup> Also Verbal Association allows for the development of a concise terminology that teachers and students may use when interacting musically whether that interaction is audible, audiated or notated.<sup>63</sup> It is important to note that the Music Learning Theory skill learning sequence may be utilized at any age level although additional Aural/Oral activities are needed for younger learners. Older learners may move more quickly through the stages.<sup>64</sup>

Without a Verbal Association Stage, it becomes increasingly difficult for students to discern new patterns they are learning.<sup>65</sup> Patterns learned with neutral syllables can only be categorized with syllable names (solfege) taught through audiation in Visual Association. This allows for better retention and recollection of patterns, meters, and tonalities that may be used in higher stages of Discrimination Learning as well as in the lower stages of Inference Learning. It is necessary for students to learn both tonal and rhythm syllables to recall patterns in audiation and to literally teach themselves new patterns they may encounter. Thus, patterns learned at the Aural/Oral Stage associated visually with syllables at the Verbal Association Stage enable self-teaching.<sup>66</sup>

### Partial Synthesis

The Partial Synthesis Stage, Schleuter defines, is the “beginning of musical syntax through aural combinations of patterns or recognizing learned patterns in familiar music without notation . . . ; the connecting of familiar vocabulary patterns into familiar larger structures . . . ; the development of aural recognition of tonality and meter of familiar music . . . ; and visually

attaching music notation to familiar pattern vocabulary.”<sup>67</sup> Aural/Oral and Verbal Association Stages of learning are synthesized into Partial Synthesis.<sup>68</sup> At this level, the students hear, audiate, and apply proper names to series of familiar patterns that are grouped into phrases such that students may *recognize* tonality and meter.<sup>69</sup> This is similar to the way that a child conceives grouped words and comprehends them within the structure of a sentence.<sup>70</sup> During this stage of development, the students also recognize the syntax of the patterns, realize the integral logic of the syllable systems used, and begin to predict, through audiation, the next patterns.<sup>71</sup> Partial Synthesis, Schleuter reveals, involves “both reading and writing music symbols after the previous levels of discrimination are accomplished for any given vocabulary pattern.”<sup>72</sup> At this level, Palac states, “[students] read and write notation for the familiar individual tonal and rhythmic patterns,”<sup>73</sup> and further synthesize these patterns through audiation.<sup>74</sup> When students can understand the ordering within music, they are ready to read and write it.<sup>75</sup> Thus, musically intelligent listening first takes place within the Partial Synthesis Stage.<sup>76</sup>

### Symbolic Association

In Symbolic Association, Gordon concludes, “Students learn to read tonal and rhythm patterns,”<sup>77</sup> from the teacher associating learned, familiar patterns notationally to those that the students have already acquired verbally with comprehension.<sup>78</sup> Schleuter furthers, “This must involve both reading and writing music symbols after the previous levels of discrimination are accomplished for any given vocabulary pattern.”<sup>79</sup> Pattern Instruction is more fully discussed in Chapter 5.

Symbolic Association should not be confused with the use of music theory (symbols and their theoretical and/or aural representations and interconnectivity) in instruction. Reading and

writing music have *little to do with actual music theory* just as reading or writing language has little to do with linguistics. Music theory is subsequently fielded in the Theoretical Understanding Stage at the end of Inference Learning- the highest level in Music Learning Theory. The development of reading and writing music notation encourages understanding of what is already audiated. Gordon extols that students “learn not only to associate symbols in notation with the names of tonalities and meters already familiar in audiation to them, but also the syllables and sounds of familiar patterns.”<sup>80</sup>

### Composite Synthesis

Composite Synthesis is the highest level of Discrimination Learning and synthesizes the earlier levels of Symbolic Association and Aural/Oral<sup>81</sup> as seen in figure 2.2. At Composite Synthesis, Mark and Madura state that students “hear with their eyes” and “see with their ears” as they read and write series of familiar patterns in familiar or unfamiliar order and, according to Palac, are “aware of the tonality and meter established in such series.”<sup>82</sup> Schleuter argues, “Recognition involves audiating the sounds of the music notation,” such as previewing music and determining how many times *do re mi* occurs, for example.<sup>83</sup> They also comprehend meter and tonality that were introduced initially via Discrimination Level instruction and utilized through each progression.<sup>84</sup> Now, students will audiate tonality and meter when reading or writing tonal and rhythmic patterns.<sup>85</sup> In other words, “intelligent listening and reading and writing are occurring concurrently” as the vocabulary of familiar patterns increases based on exposure.<sup>86</sup> Gordon distinguishes the levels of learning in figure 2.3.

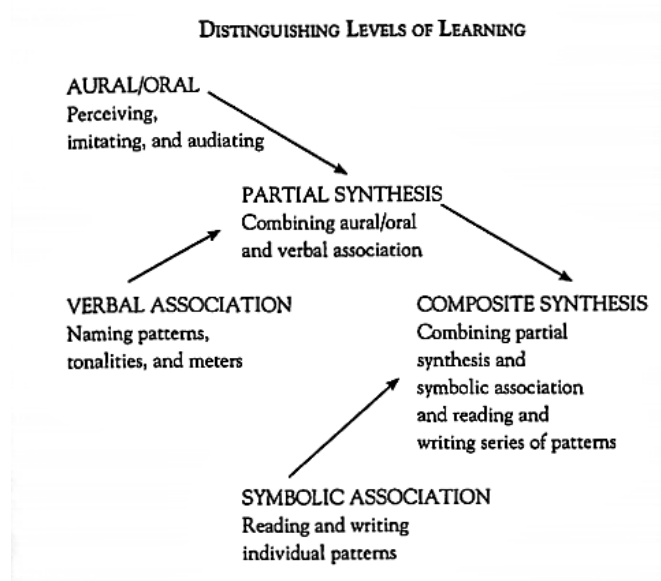


Figure 2.3. Discrimination stages with corresponding skills, from Gordon, *Learning Sequences*, 127.

### *Inference Learning*

Whereas students are taught in Discrimination Level learning how to audiate familiar patterns in familiar and unfamiliar order with familiar tonalities and meters, Inference Level learning is primarily conceptual; the learner gives meaning to familiar and unfamiliar patterns in unfamiliar order in familiar and unfamiliar tonalities and meters that were learned at the prior level.<sup>87</sup> Here, Palac reveals, “Concept-building, and therefore musical understanding, takes place.”<sup>88</sup> Schleuter adds, “Prerequisites of discrimination levels must be accomplished before inference tasks. . . [such that they] become meaningful and appropriate.”<sup>89</sup> Inference Level stages are Generalization, Creativity/Improvisation, and Theoretical Understanding.<sup>90</sup> The most complex level of Inference Learning is the Theoretical Understanding Stage wherein students grasp musical concepts (such as scale or harmonic construction).<sup>91</sup>

## Generalization

According to Jordan, Generalization, the first Inference Learning stage “requires using familiar vocabulary to comprehend the unfamiliar. It occurs when familiar vocabulary patterns are recognized in unfamiliar music both with or without notation present” and, according to Jordan, become “more or less unconscious as one’s achievement and steady progress.”<sup>92</sup> In Generalization, Shuler explains, “Students can generalize aurally, orally, verbally, or symbolically.” This aurally/orally occurs by “comparing sets of tonal patterns or rhythm patterns, some of which are unfamiliar, and judging whether patterns are the same or different,” verbally when they identify “syllable names or proper names for unfamiliar tonal patterns or rhythm patterns,” and symbolically, according to Mark and Madura, by “reading or writing unfamiliar tonal patterns or rhythm patterns.”<sup>93</sup> Teachers must provide the structure for Inference Learning activities.<sup>94</sup> Schleuter explains that Generalization may actually partly occur in earlier stages of Aural/Oral, Verbal Association, or Symbolic Association as well.<sup>95</sup> Thus, Gordon theorizes these occurrences as sublevels.<sup>96</sup> “Students who can recognize and respond to familiar patterns in unfamiliar musical contexts are in the process of Generalization. Symbol-decoding at the Generalization Stage is commonly referred to as *sight-reading music*.”<sup>97</sup>

## Creativity/Improvisation

Gordon theorizes that creativity and improvisation lie at opposite ends of the same cognitive continuum. At the creativity end, there are no externally imposed restrictions but at the improvisation end, there are many. Gordon therefore considers creative behavior to be *less complex* than those that are improvisational. At the Creativity/Improvisation Stage, the student engages in musical dialogues with the teacher that involve at least one unfamiliar pattern, with or

without Verbal Association and when familiar vocabulary is manipulated to improvise, arrange, or compose variations or new compositions. Conversely, Creativity/Improvisation occurs when familiar vocabulary is manipulated to improvise, arrange, or compose variations or new compositions and, as Mark and Madura state, “can be learned aurally/orally or symbolically.” Aurally and orally, this occurs when students perform similar but not identical, related but not repeated, patterns that their teacher (or classmates) first play(s). Symbolically, students read or write self-created musical patterns, “with appropriate musical readiness, students can engage in unbounded creativity and improvisation.”<sup>98</sup> Schleuter continues, “It is possible to spiral to Creativity/Improvisation from the Aural/Oral and Symbolic Association [stages of the lower Discrimination Level]. Example: teacher assigns an eight-measure composition that must include the pattern *do, re, mi*.”<sup>99</sup>

### Theoretical Understanding

The Theoretical Understanding Stage takes place when students learn those forms of music labeling and analysis which are not essential to aural understanding including, according to Palac, “explanations of why things occur as they do in music: intervallic relationships, scale construction, and note proportionalities. Music theory is analogous to grammar and parts of speech in language . . . [and is] often confused by music teachers with the symbols and labels used in music notation.”<sup>100</sup> Gordon opines that this skill level should be left for last, and that the most important musical behaviors are possible without knowledge of music theory.<sup>101</sup> Mark and Madura contend that Theoretical Understanding is the final stage for these reasons:

Genuine theoretical understanding includes conjectures about why music is what it is. Students need never concern themselves with why music is what it is until they comprehend what it is. When audiation skill and knowledge of music are solidified, students can then engage in theoretical speculation on the foundation of their own

knowledge and can make inferences about the theoretical conjectural Understanding Stages of others. Second, the common application of music theory- the names of the lines and spaces of the staff, so-called key signatures and meter signatures, the mathematics of time values of notes, and so on- is not necessary for any of the previous levels of the music learning process, especially music reading and writing. Moreover, when such information is introduced into the learning process, the development of skill learning and, more important, of audiation become limited. In language, no one is presumptuous enough to teach children the theory of the alphabet, parts of speech, or syntax before they can speak the language with great fluency.<sup>102</sup>

Thus it is a requirement of Music Learning Theory that students fluently speak and perform music before they endeavor to learn the intricacies of its theory.<sup>103</sup> Accordingly, research and best practices indicate that students benefit from limited Inference Level activities when they are still developing Discrimination Level skills.<sup>104</sup> However, some educators prefer to teach from a theoretical perspective rather than from Music Learning Theory (developing the audiatonal skill) because it produces some immediate results (such as scale and chord selections) believing that development of audiation will take too much rehearsal time.<sup>105</sup> Mark and Madura hold,

Because inference learning is dependent on discrimination learning, Music Learning Theory provides for temporary skips in the stepwise discrimination learning process to specific levels of inference learning. Spirals which are temporary skips, accomplish two things: 1) They give students an opportunity to experience inference learning in small segments throughout the learning process, which motivates them to continue discrimination learning. 2nd, and perhaps more important, spiraling to an inference level of learning does not teach much of the inference level, but solidifies the discrimination levels on which the inference learning is based.<sup>106</sup>

For example, when improvising with tonal patterns learned at the Discrimination Level, students do not learn as much (if anything at all) about improvising but their knowledge of the patterns is reinforced.<sup>107</sup> Schleuter mentions, “Theoretical Understanding is of little functional use until music content has moved through all previous levels of the sequence and audiation skills develop.”<sup>108</sup> Palac adds, “Students who have been playing, solfeging, reading, and writing several major and minor scales can be given the opportunity to identify the half and whole step patterns they have in common, thus developing theoretical understanding of major scale



construction.” Students “can temporarily bridge from a lower discrimination to an inference level . . . [but] for pure musical comprehension, however, students must proceed through all discrimination levels.”<sup>109</sup>

Gordon concludes that Discrimination and Inference Levels “are not mutually exclusive” and can occur together with one always being more prominent as they both are taught in conjunction with a skill and concurrently serve as readiness for the next higher stage.<sup>110</sup> Gordon argues, “The more facts and ideas students can discriminate among, the more inferences they will be able to make” and, as students achieve in each level of the skill learning sequence, it is incorporated into and interacts in audiation at the next level or sublevel.<sup>111</sup> Gordon illustrates Music Learning Theory and the interconnectedness of Discrimination and Inference Level learning in figure 2.4.

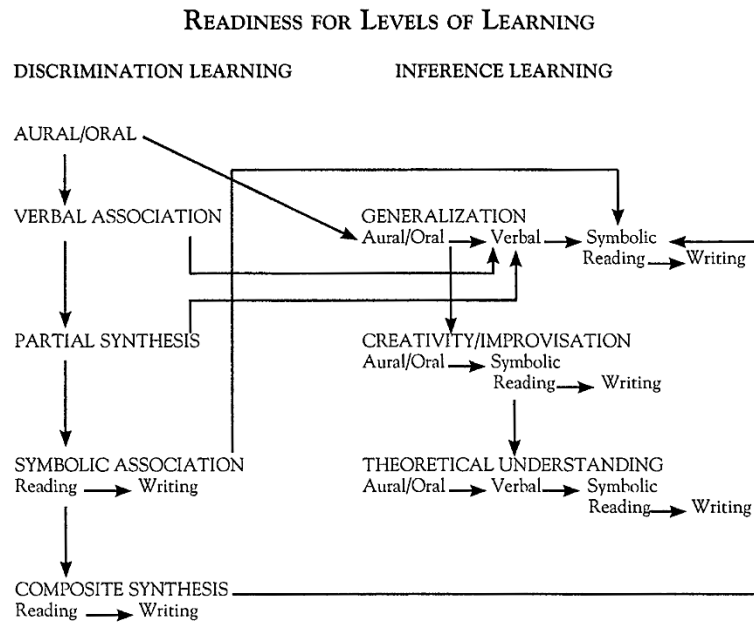


Figure 2.4. Music Learning Theory stages as readiness for higher levels, from Gordon, *Learning Sequences*, 131.

### Chapter 3 Preparatory Audiation

In his book, *Learning Sequences in Music: Skill, Content, and Patterns*, originally published in 1980 but revised several times by 2012, Gordon outlines Music Learning Theory through five stages of audiation (ədi'eɪʃən) but only *one* kind of audiation. With the publishing of *Preparatory Audiation, Audiation, and Music Learning Theory* (2001), based on empirical research data, Gordon comprehensively details *all five stages of audiation*, beginning with Preparatory Audiation in conjunction with the seven types of audiation. He does so through the use of sequents [or logical conclusions] that are applicable to any student regardless of chronological age.<sup>1</sup>

#### The Three Types of Preparatory Audiation

Gordon identifies three types of Preparatory Audiation: *Acculturation*, *Imitation*, and *Assimilation*, each containing developmental stages.<sup>2</sup> *Acculturation* in music occurs much the same way as in language, Gordon describes, “by listening to sounds, unconsciously formulating theories about ways those sounds are put together, and organizing them into patterns to create meaningful communication.”<sup>3</sup> The progression from *Acculturation* to *Imitation* is significant in Preparatory Audiation. Herein, students fairly accurately imitate tonal and rhythmic patterns performed by teachers or peers and become aware of similarity and difference.<sup>4</sup> “Without expansive listening experiences in acculturation, a child will be limited in assimilating and coordinating breathing and movement when learning how to audiate.”<sup>5</sup> *Assimilation* occurs as children become aware of their own breathing and muscle use in coordination with performance of tonal and rhythm patterns in context of tonality and meter.<sup>6</sup>

### *Acculturation*

Acculturation includes the stages of *Absorption* (the aural collection of music within the personal environment), *Random Response* (random attempts to move and babble in indirect response to the personal environment), and *Purposeful Response* (corresponding movement and babbling directly to music of the personal environment). Children become musically acculturated in the same way they become accustomed to language, Gordon claims, by “listening to sounds, unconsciously formulating theories about ways those sounds are out together, and organizing them into patterns to create meaningful communication.”<sup>7</sup> As with language, the more varied and different the language, the better the child will communicate as he grows. The quality of acculturation is as important as the age of acculturation as children move through preparatory audiation experiences. “Young children are exposed to the music of their culture through live and recorded sources, and so they are able to base their music babble sounds and movements on the musical sounds they hear in their environment.” Adults should understand that childhood learning is neither continuous nor obvious. However, they are aware of most of what they hear.<sup>8</sup> So, just as speaking occurs long before the written language is engaged, music is shared and performed long before it is ever seen.<sup>9</sup>

### *Imitation*

The Imitation type of Preparatory Audiation includes the stages of *Shedding Egocentricity* (recognizing that personal movement and babble do not match the music of the personal environment) and *Breaking the Code* (demonstrating music with some accuracy, particularly with tonal and rhythm patterns, within the personal music environment).<sup>10</sup>

## *Assimilation*

Assimilation includes the stages of *Introspection* (recognizing a lack of personal coordination between breathing, singing, chanting, and moving) and *Coordination* (coordinating singing and chanting directly with movement and breathing).<sup>11</sup>

## The Five Vocabularies

Via Music Learning Theory, children are teacher-led through the tonal and rhythmic stages within five music vocabularies: listening, speaking, thinking, reading, and writing.<sup>12</sup>

Gordon elaborates,

The listening vocabulary is acquired first and is basic to the others. Newborns listen to the language of their culture and vocalize for about a year before they begin to speak. Speaking is the second sequentially learned vocabulary and has an initial development period of about five years. Children learn to speak by imitating words they have heard. The more words they have heard and are hearing, the wider their speaking vocabulary. When deprived of adequate listening environments, children will encounter difficulties in expressing themselves in speech. The third lexicon is thinking vocabulary, which develops concurrently with the speaking vocabulary. The child learns to re-arrange familiar words in an unfamiliar order to ask and answer questions. Just as the more children learn to listen, the better they learn to speak (and vice versa, so, too, the more children think, the better they learn to listen and speak (and vice versa). These three initial vocabularies lay the foundation for development of the fourth and fifth vocabularies: reading and writing. First, children engage in listening, speaking, and thinking during the years before they enter school at which time they are formally taught to read and write the way they have been learning informally since birth. Second, the ability to think is a requisite for learning to read and write. Third, and most apropos, children learn to listen to, speak, think about, read, and write words --- and not letters of the alphabet.<sup>13</sup>

## *Listening Vocabulary*

From a musical perspective, the first vocabulary, Listening, is the essence of context: tonality and meter, with the most common being major and minor tonalities and duple and triple meters, respectively. Gordon relays, “Most familiar patterns in western music are in major and

minor tonalities and duple and triple meters.” It is the experience of difference, not sameness that expands the music listening vocabulary.<sup>14</sup> The teacher uses short songs and chants with repetition and phrase sequencing on neutral syllables such as *lah, bah, or dah*, formed in the front of the mouth.<sup>15</sup> The challenge is that many traditional music books have nothing more than familiar meters and tonalities. With important, short silences (for development of audiation) between patterns, context is crucially displayed through tonality and meter between tonic and dominant-seventh functions. As with the afore-mentioned songs and chants, neutral syllables are also employed with rhythmic patterns.<sup>16</sup> Gordon emphasizes that silence is as important as sound for student development of audiation.<sup>17</sup> Also of importance is teacher modeling of movement when performing. This movement must be free, expressive and relaxed, and not necessarily related to what the teacher is demonstrating.<sup>18</sup> These first-vocabulary tonal and rhythm patterns are of great significance as they parallel the importance of words to language. Similarly, various tonalities and meters become to music what syntax forms in language. The greater number of diverse patterns students can audiate, “the more meaning [can be brought] in audiation to the music [that students] are hearing.”<sup>19</sup> Gordon verifies that,

Children generalize and create with their Aural/Oral vocabulary long before they learn to read and write. As the child continues through school, and indeed through life, the aural, oral, and visual dimensions are constantly interacting, and they serve as readiness for one another.<sup>20</sup>

Teachers model and move while demonstrating neutral syllables well in advance of solfege “so that students are not faced with learning two things at the same time.” When students have accomplished responding to singing patterns with neutral and then solfege pattern syllables, they can sing familiar patterns with solfege.”<sup>21</sup> This is because echoing adult pattern modeling, Gordon suggests, “accelerates and forms a secure foundation for children’s development of

audiation skills” including perception of tonality.<sup>22</sup> The Listening Vocabulary occurs first because it is most critical. Its importance does not fade across the subsequent four vocabularies.

### *Speaking Vocabulary*

The second vocabulary, Singing and Chanting, occurs when adults sing and chant known and unknown songs, without words, in varying meters and tonalities. There are two differences between the first and second vocabularies: tonal and rhythm patterns differ and, in the second vocabulary, Gordon stresses, “Students are guided and encouraged to sing and chant by imitating patterns adults perform.”<sup>23</sup> When listening to speech, we give meaning to what was just said by recalling and making connections with what was heard on earlier occasions. At the same time we are anticipating or predicting what will be heard next based on our experience and understanding. Similarly, when listening to music, we give meaning to what was just heard by recalling earlier occasions. At the same time, we are anticipating or predicting what will be heard next, based on music achievement. Students audiate while listening to words, summarizing content (tonal patterns) within context (tonality),<sup>24</sup> Gordon claims, “as a way of anticipating the familiar or predicting the unfamiliar that follows. Every action becomes an interaction. What we *are* audiating depends on what we *have* audiated and what we *expect* to audiate.”<sup>25</sup>

### *Thinking Vocabulary*

The third vocabulary begins when students, listening, singing, chanting, and otherwise engaging the second vocabulary, demonstrate readiness for improvisation.<sup>26</sup> By not only singing and chanting for and not always with the students, through the readiness of the first three vocabularies, Gordon indicates that learners “are capable of participating with understanding in

activities suggested for the final two music vocabularies: reading and writing music notation. .

”<sup>27</sup>

### *Reading Vocabulary*

Reading, the fourth vocabulary, occurs when students read tonal and rhythm patterns and demonstrate contextual comprehension. Just as meaning is derived from reading groups of letters in language, groups of notes are read.<sup>28</sup> Some may confuse the essence of this vocabulary with students demonstrating note or pitch-naming on a notated staff. These specific skills, Gordon concedes, “[do] not indicate ability or even readiness to audiate when one reads music notation any more than knowing metrical signs suggests ability to read and understand poetry.”<sup>29</sup> However, after learning to read patterns tonal and rhythm solfege syllables, theoretical information such as note-naming or time signature values do not hinder audiation.<sup>30</sup>

### *Writing Vocabulary*

The fifth vocabulary, writing, exists to develop notation of familiar, audiated musical patterns.<sup>31</sup> Reading and writing music notation, the fourth and fifth vocabularies, respectively, are comparable to reading and writing words. Gordon explains:

To learn to read, persons must first know how to speak, and then speak in a language using words that have meaning to them. This oral vocabulary is then associated with the written word through meaning of the spoken word. One would not really read if he or she associated the written word with only alphabetic characters or parts of speech. . . words—not letters nor theory—which have meaning for reading comprehension.<sup>32</sup>

Appropriately, as the written vocabulary was the last to develop, so should written music notation be the last to be introduced and/or developed: Gordon indicates that, “Ideally, we sequentially develop five music vocabularies: listening, performing (which is the speaking of

music), thinking, reading, and writing” and that instructionally, “three words should be kept in mind: repetition, variety and silence.”<sup>33</sup> This sequence and order outlines explicitly how music is learned. When teachers ignore this sequence, learning, in most cases, comes to a virtual standstill since “a plethora of imitation, memorization, and explanations of music theory replaces the ideal sequence of learning music.”<sup>34</sup> Without appropriate sequencing of audiation, notation, and then music theory, students do not learn to give meaning to musical content. Gordon concludes, “This is evident when instrumentalists push the correct keys or valves as dictated by symbols on a page of music staves.” This would be similar to someone re-typing or transcribing a meeting audio track but not understanding the contents.<sup>35</sup>



## Chapter 4 Audiation

Audiation, the foundation of Music Learning Theory, includes the processing of sound that requires musical understanding.<sup>1</sup> In addition to intelligent listening, audiation leads to appreciation and aesthetic listening and performance, communication of feelings and ideas through improvisation, and contributing to music performances to the degree that aptitude, achievement, and personal interest allow.<sup>2</sup>

Gordon contends that audiation is “a complex, cognitive process through which the brain gives meaning to musical sounds.”<sup>3</sup> It cannot be directly observed.<sup>4</sup> It is the process of mentally organizing and understanding music that was encountered in the past or is encountered currently via interpreting music notation, composing music, or improvising. It encompasses musical thinking, creating and receiving musical ideas, and situating oneself within a dynamic musical context.<sup>5</sup> During the act of audiation, musicians are remembering, attending, anticipating, and predicting according to musical comprehension, knowledge, and experience.<sup>6</sup>

Gordon specifically defines audiation as “the ability to hear and to comprehend music for which the sound is not physically present (as in recall), is no longer physically present (as in listening), or may have never been physically present (as in creativity and improvisation).”<sup>7</sup> It is hearing music “through recall, creation, or aural imagery without the sound being physically present,” Jordan states, that a process takes place “with the hearing sense without the visual presence of notation.” Audiation, according to Gordon, is “the essential cognitive function which not only enables persons to give meaning to music when listening but also enables them to bring order and meaning to music which is read, written from dictation, recalled from the past, written from that recall, created or improvised, or composed.”<sup>8</sup> When students learn to audiate, they have within themselves the readiness to musically connect to other arts and subjects as well as

culture.<sup>9</sup> For Schleuter, the comparative significance transpires in that “acquiring verbal skills is dependent mainly on the ability to hear and discriminate sounds then attach meaning to them.”<sup>10</sup> Gordon notes that students “may audiate while. . . listening to, recalling, performing, interpreting, composing, improvising or reading music.”<sup>11</sup> Students audiate by mentally organizing tonal and rhythm content into patterns. As they comprehend the interaction of these patterns, they come to know music.<sup>12</sup>

### As Conversation

When one listens to speech, he gives meaning to words by recalling and connecting to what was just heard. At the same time, he anticipates what will be heard next. Music is similar in that the listener who audiates thinks about what was just heard and predicts what will be next.<sup>13</sup> Gordon believes, “Every musical action, therein, is an interaction. What is audiated toward the future depends on what was audiated toward the past. The more audiation occurs, the more profound it becomes.”<sup>14</sup> As one conceives appropriate language just before it is spoken, consistent rhythm and intonation are a result of audiation as are adjustments of tempo and meter.<sup>15</sup> Returning again to the conversation allegory, Gordon further expounds,

Imagine that you have been listening to me speak for a few minutes now. Think about how and in what sequence you are giving meaning to what I am saying. You are not giving meaning to what I am saying at the moment I say it. You are giving meaning to what I am saying by audiating what I said just a fraction of a second after I said it. To that extent, there is no present, there is only a past and a future. To be able to give meaning to what I am saying you need to sustain in audiation and to think about what I have said as you are hearing what I am saying. As you are sustaining in audiation and thinking about what you have heard and what you are hearing, you are recalling words and phrases that you have heard previous times to assist you in thinking about and giving meaning to what you are not hearing me say. Finally, while you are doing all of that, you are thinking about and predicting what you believe I will be saying next.<sup>16</sup>

Accordingly, while audiating, a student becomes aware of repetition and sequencing within a musical composition. She also conceives the tonal and rhythmic factors within and predicts, consciously or unconsciously, what will occur next based on that.<sup>17</sup> Audiation involves assimilation and comprehension not just simply *re-hearing* music performed in the past. Musicians do this when engaging music through reading, composing or improvising.<sup>18</sup>

### History of Audiation

The word audiation first appeared as a footnote in one of Gordon's music publications (a 1975 version of *Learning Sequences in Music: Skill, Content, and Patterns*) in direct response to the application of several inadequate, misapplied, descriptive words used to define the quintessential musical ability.<sup>19</sup> Gordon coined the term to facilitate research, "explain how music is given meaning by persons of all ages," and define a process that he observed through his students who were associating aural meaning with notation.<sup>20</sup> Gordon discovered ways, he states, "to help his students build true musical understanding by teaching them how to audiate."<sup>21</sup>

Audiation is substantiated by a significant amount of research and is the fundamental process through which music achievement actually occurs. Gordon contends, "Students cannot be taught to audiate. It comes naturally."<sup>22</sup> "By providing students with appropriate knowledge and experiences, however, they can learn how to audiate, that is, how to use audiation potential to maximize their music achievement." Although audiation may begin at any age through readiness, the process takes longer the older the student is.<sup>23</sup>

## Comparison with Other Processes

Audiation is often compared to imagery, inner hearing, memorization, recognition, and imitation.<sup>24</sup> Gordon notes the conflagration of terms and discerns these processes and audiation in music education.<sup>25</sup>

### *Musical Imagery*

“Compared to what is often called musical imagery,” Gordon holds, “audiation is a profound process.”<sup>26</sup> Musical imagery casually infers “a vivid or figurative picture of what music might represent. It does not require assimilation and comprehension of intrinsic elements of music. . . .”<sup>27</sup> When musicians audiate, they concurrently remember, attend to, anticipate, and comprehend based on their own individual levels of experience.<sup>28</sup> Therefore, even though musical imagery proposes descriptive, figurative representations of music, audiation is a much deeper process.<sup>29</sup>

### *Aural Perception*

Audiation must also be distinguished from aural perception that deals with *concurrent* sound events whereas audiation occurs immediately *after* the sound.<sup>30</sup> Gordon states, “In aural perception, persons are immediately responding to sound events at hand whereas in audiation they are conceptualizing past and future musical events.”<sup>31</sup>

### *Inner Hearing*

The term audiation has become part of professional vocabulary, speech, and writing, although confused with imitation, memorization, and inner hearing.<sup>32</sup> Audiation, however, is

*inner hearing with comprehension* that includes the processing of sound that first requires musical understanding.<sup>33</sup> Gordon continues, “Unless one is capable of aurally perceiving the sound of music that is physically present, he, of course, will be incapable of audiating music if which the sound is not physically present.”<sup>34</sup> Students audiate by mentally organizing tonal and rhythm content into patterns. As students comprehend the interaction of these patterns, they come to know music.<sup>35</sup>

### *Memory and Recognition*

Memory and recognition play a part in audiation processing but are not audiation, itself, although audiation does involve the use of short and long-term recall.<sup>36</sup> Musicians are able to recognize deeply flawed, inaccurate music and still not audiate it. They may recognize a distinct melodic contour or rhythm but not audiate the tonality, chord progressions or meter therein.<sup>37</sup> Gordon believes that “most students and probably as many musicians memorize and perform music without audiating contextually.”<sup>38</sup> Memorization alone is related to executive skills or technical function such as instrument fingerings. Many musicians cannot audiate what they have just played; play a variation; play in a transposed key, tonality (such as minor) or meter; play with alternate fingerings or improvise body movement to the original musical phrases. These activities imply underlying audiation as opposed to simple recitation.<sup>39</sup> Memorization, alone, emphasizes sameness and familiarity.<sup>40</sup> Were the same amount of time spent in memorization applied to reading many compositions, musical knowledge would increase exponentially. In fact, as students develop audiation as a result of interacting with various musics, memorization becomes unnecessary.<sup>41</sup> Still, there are teachers who believe that the only way to learn music is through memorization and imitation.<sup>42</sup> “Memorization through notation without audiation and

imitation without notation or audiation lead the same unsatisfactory results in instrumental performance.”<sup>43</sup>

### *Imitation*

Audiation, for Grunow, is perhaps best understood when compared to imitation.<sup>44</sup> While distinctly different from imitation “which involves mimicking or repeating sounds that one has just heard,” as Jordan contends, imitation is an important early step in demonstrating readiness for audiation.<sup>45</sup> Imitation is a product whereas audiation is a process.<sup>46</sup> It should be noted that it is possible and perhaps too often the occurrence that music is performed not as audiated but merely imitated.<sup>47</sup> However, learning by rote imitation is not the same as learning with understanding.<sup>48</sup> An individual who imitates a language pronounces the words correctly without giving meaning to the words. That is true when someone reads or speaks in a foreign language but does not understand the meaning of the words. An individual who imitates music is unable to give meaning to music. Gordon exemplifies, a “person who imitates rhythmically may be able to engage in counting and time-keeping; but that individual may experience difficulty maintaining a consistent tempo.”<sup>49</sup>

There is often unnecessary confusion between audiation and imitation as well as memorization in music education. To clarify, imitation is a necessary part of the audiation process along with memory and recognition but does not wholly comprise it.<sup>50</sup> Gordon explains, “When we merely recognize or imitate what we have heard or memorize what we intend to perform, we live in the past. In audiation, the past lives in us.”<sup>51</sup> Grunow furthers, “Imitation is not *unimportant*; one must be able to imitate in order to audiate. It is audiation, however, that forms the basis for all musical behavior.”<sup>52</sup> Imitation is possible without audiating. However, the

skill of imitation reveals its limitations when, instead of playing immediately after or with a peer or the teacher, the student performs his instrument alone. Imitation is doing; it represents thought about music. Audiation is learning; it represents musical thought. Imitation is accomplished through someone else's ears.<sup>53</sup> Audiation is accomplished through one's own ears. Imitation is analogous to using tracing paper to draw a picture. Audiation and singing a song are analogous to visualizing and then drawing a picture.<sup>54</sup> What is imitated is not retained but what is audiated is. Accordingly, audiation leads to profound musical expression while imitation leads to nothing.<sup>55</sup> It must be noted, however, that imitation cannot and *should not* be discarded because it is a pre-requisite skill to audiation.<sup>56</sup>

### Literacy

Audiation is a readiness for music literacy. Gordon promotes the sequential implementation of tonal and rhythm patterns to achieve this goal.<sup>57</sup> Literacy, for Gordon, involves much more than naming notes or music symbols, correlating instrument fingerings, valves or keys to notation, or simply reading and writing music.<sup>58</sup> These acts only demonstrate decoding which is related to general intelligence but not literacy.<sup>59</sup> Gordon states,

In language, we decode when name letters of the alphabet or recognize words but are unable to extract the meaning of a written sentence or paragraph. In music, we decode when we name notes on the staff but are unable to extract the sound of patterns or phrases. That is, we cannot hear the sound of what a composer has notated unless we consult an instrument.<sup>60</sup>

If meaning is given to what is seen in music notation by silently hearing its musical sound before it is performed instrumentally, then the performer is engaging in notational audiation. Also, creating and notating music without relying on instruments is also employing the act of audiatonal notation.<sup>61</sup>

### *Notational Audiation*

Notational audiation involves audiating while reading or writing musical transcript.<sup>62</sup> It is possible to read music without audiating but that is more simple symbol decoding.<sup>63</sup> Gordon proffers, “It is not uncommon for one to be able to audiate without being able to notationally audiate or without having had any instruction in music notation or music theory.”<sup>64</sup> When students are taught to read music through forced decoding, it takes a significant amount of time and they never actually learn to read or audiate but just to adhere to directions.<sup>65</sup>

Literacy requires that students must be able to listen, audiate, sing, chant, and improvise intelligently.<sup>66</sup> Gordon contends that all students are capable of this.<sup>67</sup> In language, students would use words but in music, students use tonal, rhythmic, and harmonic patterns.<sup>68</sup> In using language, students do not think of theoretical structures therein just as musicians do not think about a musical scale when performing music based on it.<sup>69</sup> Typically, students are instructed in reading musical notation before they have audiation skills. In this scenario, memorization is stressed to enable performance. The notation, itself, will not further develop audiation.<sup>70</sup>

### Correlation To Language

Gordon reasons, “In order to understand a language, one must learn to think [in] that language. In order to truly understand a piece of music, one must learn to audiate the music.”<sup>71</sup> “The reason that children learn how to speak without being given speaking lessons is because they have heard a great deal of speaking, and thus they are able to model the speaking voice quality.”<sup>72</sup> Learning language has many corollaries to learning music.<sup>73</sup> Reading music, like reading language, requires more development and structure than what musically compares to simple verbal pronunciation (such as counting rhythms or correlating fingerings to particular



pitches); it requires literal comprehension.<sup>74</sup> When students understand music, Grunow furthers, they “hear [it] before it is played on the instrument, and they also audiate and predict what is not on the page” (such as keyality or chord progressions, time signature and melodic/harmonic rhythm, overall style and context of the work). This foundation is needed to develop readiness for music literacy.<sup>75</sup>

Gordon maintains that the process for giving meaning through music audiation is identical for effective speech. Students are summarizing and categorizing what they’ve just heard and using that information to anticipate that which is about to occur.<sup>76</sup> Thus, “Music, performance, and audiation have parallel meanings. Music is the need to communicate. Performance is how this communication takes place. Audiation is what is communicated.”<sup>77</sup> What meaning is actually given is highly individualistic depending on the occasion and the person since meaning-making is very much an act of musical translation. As with different spoken languages, each person continually, musically interprets “what we are hearing spoken in our own language into unique meaning.”<sup>78</sup> Audiation is not only comprehension and assimilation of music heard at any point in the past but also of music not yet heard but read in notation, composed in musical notation, or improvised in live performance.<sup>79</sup> In fact the very act of audiation involves the mental organization of tonal and rhythm patterns since the brain is a pattern-seeker in search of sameness through comparison of known to unknown.<sup>80</sup> This comprehension and organization requires understanding of intrinsic musical characteristics.<sup>81</sup> Gordon concludes, audiation occurs when “listening to, recalling, performing, interpreting, creative, improvising, reading, and writing music,” performing music solo and in ensemble, composing, or improvising. Thus, “audiation is both esoteric and exoteric.”<sup>82</sup>

### *Music Comprehension and Language*

Gordon clarifies that music comprehension, while acquired like a language, actually is not one.<sup>83</sup> Music does not have the same communicative function as language nor does it have grammar or parts of speech. Still, Gordon theorizes that, “Audiation is to music what thinking is to a language.”<sup>84</sup> In acquiring language skills, children develop a tremendous listening vocabulary long before speaking. The Babble Stage allows them to explore and experiment with various facets of language.<sup>85</sup> Gordon declares,

With proper readiness, students will be able to audiate patterns in notation rather than decode and recite the letter and time value names of individual notes. Once children are audiating patterns, they are truly ready for notation because they can already audiate what they are now expected to read,<sup>86</sup>

and “a bereft audiation vocabulary can lead toward note heads being read vertically, that is, as individual notes instead of patterns.”<sup>87</sup> Gordon adds that, even though music and language learning are highly similar, traditional pedagogy reverses the process for music learning by introducing music theory long before students find their own singing voices or have music performed with and for them.<sup>88</sup>

### *The Babble Stage*

The Babble Stage, an informal music-making phase, is crucial for readiness to read and perform music as well as imitate speech.<sup>89</sup> This idea of sound before sight has aural and visual factors that interact up through the age of three.<sup>90</sup>

Beginning at this stage and progressing, the sequence of developing tonal and rhythmic syntax does not differ from person to person; it is important to note that rhythmic development is not closely related to tonal syntax achievement so they may develop at different rates.<sup>91</sup>

Youngsters are exposed to the music of their home environments and they “[experiment] with

the information acquired,” according to Bluestine.<sup>92</sup> When language is spoken, an Aural/Oral sense is established with that language, Levinowicz acknowledges, that becomes the “person's fundamental understanding of language . . . [and] the foundation upon which he will base a theoretical understanding of his native language when he gets older.” This understanding is also gained from listening to and experiencing the music of one's own culture and environment becoming the audiatonal readiness upon which theoretical constructs may be developed.<sup>93</sup>

The Babble Stage then is vastly important to child development as tonal and rhythmic vocabularies are formed during this phase. A person in this stage teaches himself songs, creates his own, chants, and moves to music and, as they move through the tonal Babble Stage, they become less monotone.<sup>94</sup> Levinowitz claims the stage is nearly complete when one “can sing familiar songs either in part or whole but not unfamiliar songs.” If youth during the stage are not exposed regularly to music, they will have “only a limited aural vocabulary of music with which to orally experiment.” This problem may be addressed with informal music activities, or those activities that have no expectations of formal achievement, including singing high and low, up and down, loud and soft, or stepping, skipping and leaping in pitch. Formal achievement should not be expected until the student “can demonstrate music successfully, both rhythmically and tonally.”<sup>95</sup>

Gordon holds that it is the listening vocabulary acquired during the Babble Stage that becomes the foundation for writing and reading music. The earlier children engage in music listening and activity, the better. The quality of this acculturation is as important as the age of the children as they move through Preparatory Audiation. “Young children are exposed to the music of their culture through live and recorded sources, and so they are able to base their music babble sounds and movements on the musical sounds they hear in their environment.” Adults should

understand that childhood learning is neither continuous nor obvious. However, children are aware of most of what they hear.<sup>96</sup> So, just as speaking occurs long before the written language is engaged, music is shared and performed long before it is ever seen.<sup>97</sup>

### Instrument Skills and Audiation: Two Instruments

Teachers often unwittingly develop the performance skills of *one* instrument instead of a necessary *two*- the practical, executive, technical one and not the hidden one based in audiation. Students should be taught to develop audiation *in advance* of performing. Gordon clarifies, “Given a wind, brass or stringed instrument, a student will play it no better in tune than he can audiate in tune and will play it with no better rhythm than he can audiate rhythm.”<sup>98</sup> Reading music notation should be the goal of music education within a sequence that helps students learn to audiate effectively. If an effective sequence is followed, students “will be able to audiate music without seeing notation, and will be able to audiate notation without hearing music.” This should be music education’s goal.<sup>99</sup>

There may be a prevailing notion that the overriding goal for music instruction performance as well as the assumption that playing music by ear is not authentic musicianship. Gordon holds that it is not those who perform and audiate by ear who lack credibility but rather those who play from written music without audiation.<sup>100</sup> Children without readiness do not profit from school music instruction; this becomes an extreme situation when children later attempt to play and read music instrumentally when they have not developed a listening vocabulary or fundamental audiation. This may account for the dropout rate in beginning instrumental music instruction.<sup>101</sup>

Without developing audiation, music is just an external activity involving long term memory (performance) and short-term responses (imitation). Audiation is required to perform music with expression and sensitivity and is like thinking while speaking.<sup>102</sup> A jazz musician cannot improvise without audiation skills involving rhythm, chord progression, tonality, or melody.<sup>103</sup> According to Holt and Jordan, sounds performed, “without being heard and understood will never be retained or carry any human content.” Thus, problems may arise with simple instruction of a music performance piece where students read the music but do not improve their listening.<sup>104</sup>

### Types And Stages Of Audiation

Gordon theorizes,

Eight types of audiation represent different ways of appreciating music through understanding. Audiation takes place when we understand as we listen to music, when we perform music from memory (not memorization), when we audiate beforehand what we create and improvise, and when we read and write music notation. To read and write notation with understanding and appreciation, students are able to audiate music as they see it in score without playing it on an instrument.<sup>105</sup>

#### *The Eight Types of Audiation*

- Type 1. Listening to music
- Type 2. Reading music
- Type 3. Writing music that is being heard
- Type 4. Recalling music from memory
- Type 5. Writing music from memory
- Type 6. Performing as we create or improvise music
- Type 7. Reading as we create or improvise music
- Type 8. Writing as we create or improvise music<sup>106</sup>

#### Discussion of the Eight Types of Audiation

Type 1. Listening to music. When listening to familiar or unfamiliar music, when hearing familiar or unfamiliar tonal or rhythm patterns, it is by “sequencing, recalling, anticipating, and

predicting,” Gordon finds, “these patterns through audiation give contextual meaning to what we hear.”<sup>107</sup>

Type 2. Reading Music. Notational audiation occurs when reading familiar and unfamiliar patterns in familiar and unfamiliar music. This may occur when reading a musical score silently or listening to music. It involves audiating from musical notation what will be but has not yet been heard through performance.<sup>108</sup>

Type 3. Writing music from dictation. Yet another form of audiation occurs when musicians notate familiar or unfamiliar music occurring in familiar or unfamiliar music. Gordon expresses, “Although writing music from dictation is the reverse of reading music from the score, it, too, is considered notational audiation.”<sup>109</sup>

Type 4. Recalling music from memory. A fourth type of audiation occurs when familiar patterns are recalled and then performed instrumentally or vocally, conducted in performance, or comprehended through listening. “Each pattern in music we are recalling in audiation guides us sequentially in organizing and recalling remaining patterns.”

Type 5. Writing music from memory. A fifth type of audiation occurs when familiar patterns from familiar music is notated through auditional organization and recall.

Type 6. The sixth kind of audiations occurs through creation or improvisation of unfamiliar music in live performance or in silence including familiar and unfamiliar patterns.<sup>110</sup>

Type 7. Reading and creating or improvising music occurs in reading familiar and unfamiliar patterns while simultaneously creating or improvising unfamiliar music during performance or in silence.

Type 8. Writing and creating or improvising music occurs when writing familiar and unfamiliar patterns while creating or improvising unfamiliar music.<sup>111</sup>

In addition to the types, Gordon also theorizes six stages of audiation; Saunders affirms that this “cognitive attachment of music-meaning to organized sounds is certainly based in logical thought and reason.”<sup>112</sup> He claims that these stages are hierarchical- each serving as the readiness for the next.<sup>113</sup> Gordon thinks that, where conditions for learning are ideal, “all relevant stages are included in one form or another.”<sup>114</sup> Synchronic audiation, or audiation existing at one point time, occurs in Stages 1 through 4 when “listening to, performing, reading, or writing music in the moment.” Diachronic audiation, occurring over time, occurs in Stages 5 and 6.<sup>115</sup>

### *The Six Stages of Audiation*

- Stage 1. Momentary retention
- Stage 2. Imitating and audiating tonal patterns and rhythm patterns and recognizing and identifying tonal centers and macro-beats
- Stage 3. Establishing objective or subjective tonality and meter
- Stage 4. Retaining in audiation tonal patterns and rhythm patterns that have been organized
- Stage 5. Recalling tonal patterns and rhythm patterns organized and audiated in other pieces of music
- Stage 6. Anticipating and predicting tonal patterns and rhythm patterns<sup>116</sup>

### Discussion of the Six Stages of Audiation

Stage 1. Momentary Retention. Unconsciously audiating short series of pitches and durations that were heard just a moment earlier in the music. The unconscious retention of short series of pitches and durations just moments earlier in the music.

Stage 2. Imitation and audiation of tonal and rhythm patterns and recognition or identification of pitch or rhythm, organizing through audiation the series of pitches and durations into one or more tonal patterns of essential pitches and one or more rhythm patterns of essential durations. Conscious organization of different sequences of pitches and durations into tonal and rhythm patterns.

Stage 3. Establishing Tonality and Meter. Conscious organization of tonal and rhythmic content into meters and tonalities.

Stage 4. Retaining in audiation tonal patterns and rhythm patterns that we have organized. Recollection of essential tonal and rhythmic content that has been mentally organized while concurrently organizing tonal and rhythmic content being heard. This may result in restructuring of pattern knowledge.

Stage 5. Recalling patterns organized and audiating in other pieces of music. Experience and training inform the comprehension of what is currently heard. The more expansive a the audiatonal background, the greater the comprehension.

Stage 6. Predicting patterns that will be heard next. Collectively utilizing stage 1 through 5, consciously anticipating and predicting forthcoming tonal or rhythm patterns in music.<sup>117</sup>

With one exception, the stages of audiation for Type 1 (listening to music) and Types 6, 7, and 8 (creating and improvising music) are the same. In audiation Types 6, 7, and 8, however, unconscious audiation of series of pitches and durations replaces the unconscious immediate aural impression. Without stages 5 and 6, “neither creativity nor improvisation can be undertaken with even a modicum of musicianship.” Without a broad tonal and rhythm pattern vocabulary, Gordon holds, “a musician cannot creatively improvise let alone creatively listen.”<sup>118</sup> Hearing musically is the essential component for all music learning to occur.”<sup>119</sup>



## Chapter 5 Pattern Instruction

### Purpose of Pattern Instruction

Pattern instruction serves three purposes:

1. Grounds the whole-part-whole learning process
2. Allows the teacher the opportunity to listen to interact with and assess students individually
3. Provides accountability<sup>1</sup>

Integrating pattern instruction into traditional classroom activities requires understanding of the whole-part-whole process<sup>2</sup> while detailing the factors and processes involved as seen in figure 5.1.

1. Introduction- overview of the whole
2. Application- specific study of the parts (patterns)
3. Reinforcement- greater understanding of the whole<sup>3</sup>

<b>WHOLE</b>	<b>PARTS</b>	<b>WHOLE</b>
Context	Content	Context
Tonality/Meter	Patterns	Tonality/Meter
	Skills	Content
		Patterns
		Skills

Figure 5.1. Gordon's description of whole-part-whole, from Gordon, *Learning Sequences*, 273.

Familiarity with musical patterns is like the understanding of spoken words; they are learned through exposure to contrasting patterns since students do not learn what is but rather they learn what is not.<sup>4</sup> Gordon purports that the terms, word and pattern, are actually synonymous. Essentially, then, one learns to speak words in the same manner that one learns to speak music patterns.<sup>5</sup>

Tonal and rhythmic patterns *must* be taught separately prior to their combination in melodic patterns.<sup>6</sup> To teach them simultaneously compromises learning and the instructional sequence will subsequently need to be repeated.<sup>7</sup> Gordon:

Students are best taught to perform tonal patterns and rhythm patterns independently so that every pitch in a tonal pattern is taught with the same duration, and every duration in a rhythm pattern is taught using the same pitch, but with inflection. Students have difficulty transferring tonal patterns to other settings if rhythm is used as well as generalizing rhythms that have had other tonal patterns joined. This is in alignment with Piaget's *Theory of Conservation*.<sup>8</sup>

### Sameness and Difference

As revealed earlier, the critical issue in pattern instruction is difference as opposed to sameness. Without consciousness of differences in patterns, major/minor or duple/triple for example, comprehension will be marginal at best. Gordon trumpets, "When sameness predominates, understanding is at a virtual standstill."<sup>9</sup> When students audiate, they hear musical patterns similar to ways in which words are conceived. Words are units of comprehension in language- but in music, it is the tonal or rhythmic pattern.<sup>10</sup> Musicians audiate by mentally organizing tonal and rhythm content into patterns and, as they comprehend the interaction of these patterns, they come to know music.<sup>11</sup> Patterns are classified according to difficulty as researched by Gordon<sup>12</sup> (see figures 5.2 – 5.4). Generally speaking, those patterns easiest to audiate are also easiest to perform. There is no correlation between the difficulty of patterns and their occurrence in an actual survey of extant music literature. Their difficulty is determined only through research methods. Regardless of ability or aptitude, all students learn through the pattern instruction sequence at the same time.<sup>13</sup> Music Learning Theory advocates understand that pattern instruction and traditional classroom exercises are separate but complimentary, reinforcing one another.<sup>14</sup>

# DIFFICULTY LEVELS OF HARMONIC PATTERNS

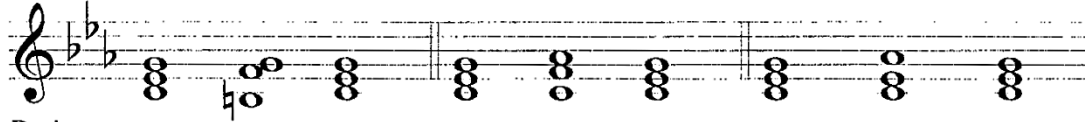
## EASY

MONOTONAL/MONOKEYAL

Major



Harmonic Minor



Dorian

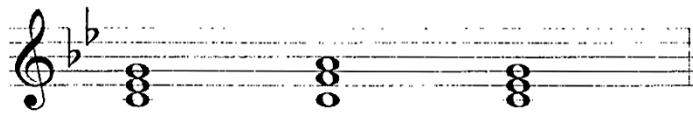
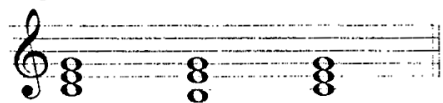


Figure 5.2. Sequence of harmonic difficulty, from Gordon, *Learning Sequences*, 210.

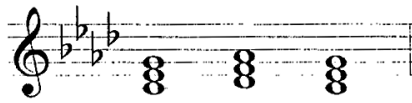
## MODERATELY DIFFICULT

### MONOTONAL/MONOKEYAL

Major



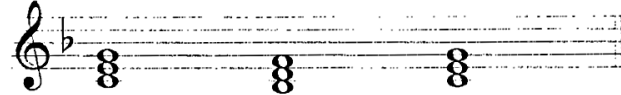
Phrygian



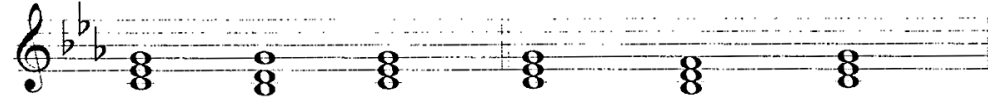
Lydian



Mixolydian



Aeolian



Locrian



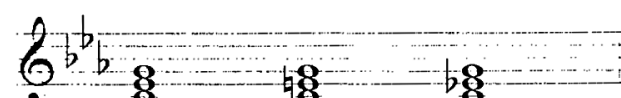
### MONOTONAL/POLYKEYAL

Major



### POLYTONAL/MONOKEYAL

Harmonic Minor



### POLYTONAL/POLYKEYAL

Major

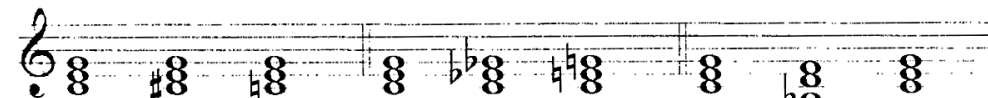
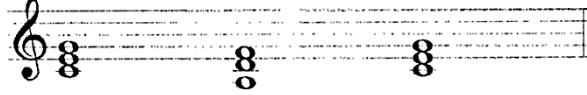


Figure 5.3. Sequence of harmonic difficulty 2, from Gordon, *Learning Sequences*, 211.

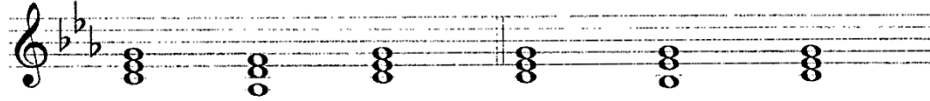
**DIFFICULT**

MONOTONAL/MONOKEYAL

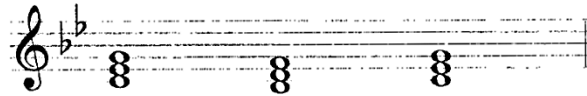
Major



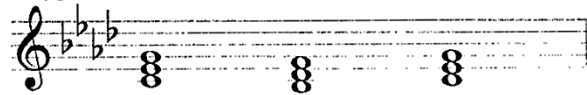
Harmonic Minor



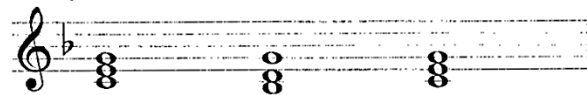
Dorian



Phrygian

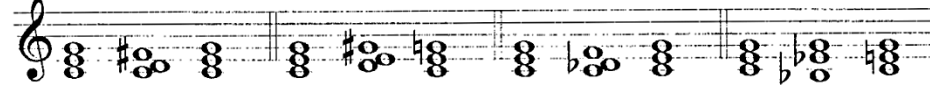


Mixolydian



MONOTONAL/POLYKEYAL

Major



POLYTONAL/MONOKEYAL

Major

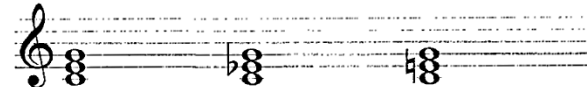


Figure 5.4. Sequence of harmonic difficulty 3, from Edwin Gordon, *Learning Sequences*, 212.

## Manipulation of Tonal And Rhythmic Patterns

Music Learning Theory is rooted in the discernment and manipulation of tonal and rhythmic patterns.<sup>15</sup> Thus, pattern instruction is the primary vehicle of its instruction and is critical to the development of music comprehension.<sup>16</sup> Gordon finds, “Just as children learn to imitate and speak in their own words, in music they learn to imitate patterns as readiness for learning to audiate and perform their own patterns.”<sup>17</sup> Palac continues, “Children should develop a listening vocabulary of . . . patterns, or musical words, within the context of a musically rich environment.”<sup>18</sup> Tonal or melodic patterns or those that combine tonal and rhythmic content are the building blocks for music learning and supported by several studies.<sup>19</sup> Conway concludes that “all of the well-known music education methodologies [Orff, Kodály, Suzuki, and Music Learning Theory] support the concept of *rote before note* exemplified in this pattern approach.”<sup>20</sup>

### Tonal Patterns

One of the chief outcomes of Music Learning Theory is that students audiate intervallic tonal patterns (the sonic distance between two pitches).<sup>21</sup> Hearing a variety of different patterns, like hearing an extended word vocabulary, is critical to the proliferation of the musical listening vocabulary.<sup>22</sup> Gordon believes that,

Children in this culture should learn tonal patterns in major and minor tonalities before they learn patterns in other tonalities, such as Dorian and Phrygian. Also students should be taught to audiate and to perform tonic and dominant patterns in major and minor tonalities before they are taught to audiate more complex pattern functions.<sup>23</sup>

Tonal syntax is acquired by establishing key and tonality and subsequent rote-learned patterns.<sup>24</sup> As students learn content in patterns, they experience various modes and scales to reach mastery within pattern learning sequences. For tonal content, students are first provided ample opportunities to sing and listen to music. This informal exposure is critical, particularly to

younger students since it is thought that children acquire music the way they acquire language proficiency. Mark and Madura indicate, “Observational evidence indicates that exposure to rote songs enables babbling young children to develop a sense of pitch center.” Soon after this is developed, diatonic intervals (in relationship to the tonic) can be discerned. Pattern instruction may commence when the pitch center can be solidly exemplified, and singing is recognizable in major and minor tonalities.<sup>25</sup>

Schuler recommends that tonal patterns range from two to five pitches in length with a typical length of three notes.<sup>26</sup> He outlines a process for their delivery.

The first step in tonal content sequence is to develop the ability to audiate the resting tone in both major and minor tonalities. Then the student is taught to audiate tonal patterns in relation to that resting tone. Gordon recommends the use of moveable *Do* solfege as the means to develop a sense of tonal syntax and, eventually, tonal literacy. Tonalities are presented in their relative-- rather than parallel keys.<sup>27</sup>

Conway then suggests: “teachers will want to introduce whatever tonal syllable system is to be used in future instrumental instruction. Once students can audiate the resting tone and accurately imitate melodic patterns, they are prepared to enter into instrumental music instruction and can thus bring musical meaning to notation when it is introduced.”<sup>28</sup> See figure 5.2 for an example of a tonal syllable system.

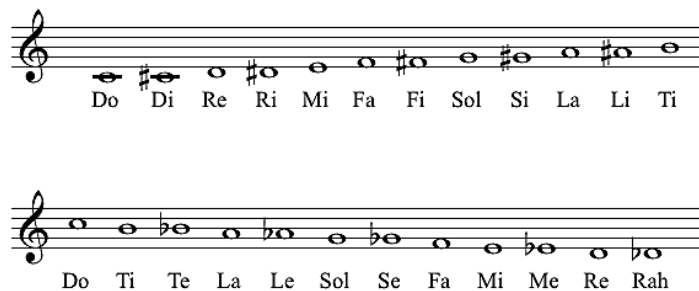


Figure 5.5. Full range of ascending and descending tonal solfege syllable, from Casey Sukel, “Reflection 4 Evidence Of Literacy - Lessons - Tes Teach.” Tes Teach with BlendSpace. Accessed May 23, 2020. <https://www.tes.com/lessons/z1j7clCTA7JxjQ/reflection-4-evidence-of-literacy>.

Accordingly a tonal pattern may be deconstructed into isolated pitches and then reformed again. This cannot occur with rhythmic patterns since a rhythmic duration cannot be known in isolation from context.<sup>29</sup> Accordingly, tonal patterns and rhythm patterns cannot be taught the same way.<sup>30</sup> Gordon adds, “Middle pitches in a tonal pattern are most difficult for students to recall in audiation” and, “when concretized, rhythm patterns are not concretized in any one style.”<sup>31</sup> Gordon isolates tonalites and their inherent pattern functions (see figure 5.6) and the specific pitches within those patterns (see figure 5.7).



## TONALITY CLASSIFICATION AND PATTERN FUNCTION OUTLINE

Tonality Classifications	Pattern Functions
Major	Tonic, Dominant, Subdominant, Cadential, Multiple, Modulatory, Chromatic, Expanded
Harmonic Minor	Tonic, Dominant, Subdominant, Cadential, Multiple, Modulatory, Chromatic, Expanded
Dorian	Tonic, Subtonic, Subdominant, Cadential, Characteristic Tone
Phrygian	Tonic, Subtonic, Supertonic, Cadential, Characteristic Tone
Lydian	Tonic, Dominant, Supertonic, Cadential, Characteristic Tone
Mixolydian	Tonic, Subtonic, Dominant, Subdominant, Cadential, Characteristic Tone
Aeolian	Tonic, Subtonic, Dominant, Subdominant, Cadential, Characteristic Tone
Locrian	Tonic, Subtonic, Mediant, Cadential, Characteristic Tone

Figure 5.6. Tonality with their pattern functions, from Gordon, *Learning Sequences*, 158.

**MAJOR**

Tonic    Dominant    Subdominant    Cadential    Multiple    Modulatory    Chromatic    Expanded

**HARMONIC MINOR**

Tonic    Dominant    Subdominant    Cadential    Multiple    Modulatory    Chromatic    Expanded

**DORIAN**

Tonic            Subtonic            Subdominant            Cadential            Characteristic Tone

**PHRYGIAN**

Tonic            Subtonic            Supertonic            Cadential            Characteristic Tone

**LYDIAN**

Tonic            Dominant            Supertonic            Cadential            Characteristic Tone

**MIXOLYDIAN**

Tonic            Subtonic            Dominant            Subdominant            Cadential            Characteristic Tone

**AEOLIAN**

Tonic            Subtonic            Dominant            Subdominant            Cadential            Characteristic Tone

**LOCRIAN**

Tonic            Subtonic            Mediant            Cadential            Characteristic Tone

Figure 5.7. Tonal patterns for each mode, from Edwin Gordon, *Learning Sequences*, 159.

### Reading Tonal Patterns

In his text, *The Aural/visual Experience* (2004), Gordon details the processes in reading tonal patterns. Having relatively simple content, melodies without text in Major and Harmonic Minor tonalities in Usual Duple and Usual Triple Meters are utilized. Tonic, dominant-seventh, and subdominant patterns are the foci with neutral, tonal syllables (see figure 5.7).<sup>32</sup> Gordon posits a process for instrumental reading.<sup>33</sup> Tonal examples follow.

#### Tonal pattern example 1



Figure 5.8. Tonal pattern example 1, from Edwin Gordon, *The Aural/visual Experience of Music Literacy: Reading and Writing Music Notation* (London: Boydell & Brewer, 2004), 52.



Figure 5.9. Tonal isolation excerpt correlating with tonal pattern example 1, from Gordon, *The Aural/visual Experience*, 53.

### Writing Tonal Patterns

Gordon holds that, when students read music, notation is observed and then the symbols representing those patterns are audiated. When writing music, the musical patterns are conversely audiated first before notation commences. Measure signatures and even measure

markings are unnecessary when writing tonal patterns since there is no rhythm involved.<sup>34</sup> For writing tonal patterns, Gordon has developed an instructional process similar to reading tonal patterns. A writing excerpt may be seen in figure 5.10.

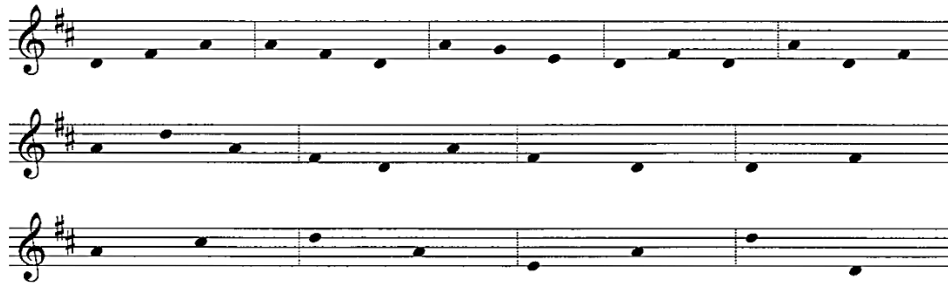


Figure 5.10. Set 1 of tonal examples for notating music, from Gordon, *The Aural/visual Experience*, 81.

Gordon also provides a number of examples in his book, *The Aural/visual Experience* (2004), for notating music.

### Rhythm Patterns

While context in rhythm is established through meter with tempo, rhythm patterns, not individual notes or durations, form content. Gordon espouses, “It seems imperative that students develop a sense of meter, that they audiate differences among meters, and that they are able to perform essential patterns in many meters.”<sup>35</sup> Subsequently, Gordon’s theoretical development of rhythm concepts, including rhythm solfege syllables, will be discussed in the next chapter. Below, in figure 5.11, as similarly seen with tonal patterns in figure 5.7, Gordon provides the most common rhythm patterns.




Figure 5.11. Most common rhythm patterns, from Gordon, *Learning Sequences*, 205.

Gordon also discerns rhythm patterns across meters as seen in figures 5.12-5.13 with the Rhythm Learning Sequence appearing in figure 5.14.

### USUAL DUPLÉ


Macro/Microbeats      Divisions      Elongations      Divisions/Elongations



Rests      Ties      Upbeats

### USUAL TRIPLE


Macro/Microbeats      Divisions      Elongations      Divisions/Elongations



Rests      Ties      Upbeats

### USUAL COMBINED


Macro/Microbeats      Divisions      Elongations      Divisions/Elongations



Rests      Ties      Upbeats

### UNUSUAL PAIRED

Macro/Microbeats      Divisions      Elongations      Divisions/Elongations



Rests      Ties      Upbeats

Figure 5.12. Basic rhythm patterns in Usual and Unusual Meters, from Gordon, *Learning Sequences*, 202.

### UNUSUAL UNPAIRED

Macro/Microbeats      Divisions      Elongations      Divisions/Elongations

Rests      Ties      Upbeats

The first section shows four measures of music in 7/8 time. The first measure is labeled 'Macro/Microbeats' and contains a sequence of eighth notes. The second measure is labeled 'Divisions' and contains a sequence of eighth notes with a tie over the last two. The third measure is labeled 'Elongations' and contains a single eighth note followed by a quarter rest. The fourth measure is labeled 'Divisions/Elongations' and contains a sequence of eighth notes with a tie over the last two. The second section shows three measures. The first is labeled 'Rests' and contains a quarter rest. The second is labeled 'Ties' and contains a sequence of eighth notes with a tie over the last two. The third is labeled 'Upbeats' and contains a quarter note followed by a quarter rest.

### UNUSUAL PAIRED INTACT

Macro/Microbeats      Divisions      Elongations      Divisions/Elongations

Rests      Ties      Upbeats

The first section shows four measures of music in 7/8 time. The first measure is labeled 'Macro/Microbeats' and contains a sequence of eighth notes. The second measure is labeled 'Divisions' and contains a sequence of eighth notes with a tie over the last two. The third measure is labeled 'Elongations' and contains a single eighth note followed by a quarter rest. The fourth measure is labeled 'Divisions/Elongations' and contains a sequence of eighth notes with a tie over the last two. The second section shows three measures. The first is labeled 'Rests' and contains a quarter rest. The second is labeled 'Ties' and contains a sequence of eighth notes with a tie over the last two. The third is labeled 'Upbeats' and contains a quarter note followed by a quarter rest.

### UNUSUAL UNPAIRED INTACT

Macro/Microbeats      Divisions      Elongations      Divisions/Elongations

Rests      Ties      Upbeats

The first section shows four measures of music in 5/8 time. The first measure is labeled 'Macro/Microbeats' and contains a sequence of eighth notes. The second measure is labeled 'Divisions' and contains a sequence of eighth notes with a tie over the last two. The third measure is labeled 'Elongations' and contains a single eighth note followed by a quarter rest. The fourth measure is labeled 'Divisions/Elongations' and contains a sequence of eighth notes with a tie over the last two. The second section shows three measures. The first is labeled 'Rests' and contains a quarter rest. The second is labeled 'Ties' and contains a sequence of eighth notes with a tie over the last two. The third is labeled 'Upbeats' and contains a quarter note followed by a quarter rest.

Figure 5.13. Basic rhythm patterns in Unusual Meter, from Gordon, *Learning Sequences*, 203.

Similar to tonal learning, Gordon provides the levels and sublevels of rhythm learning as seen in figure 5.10.

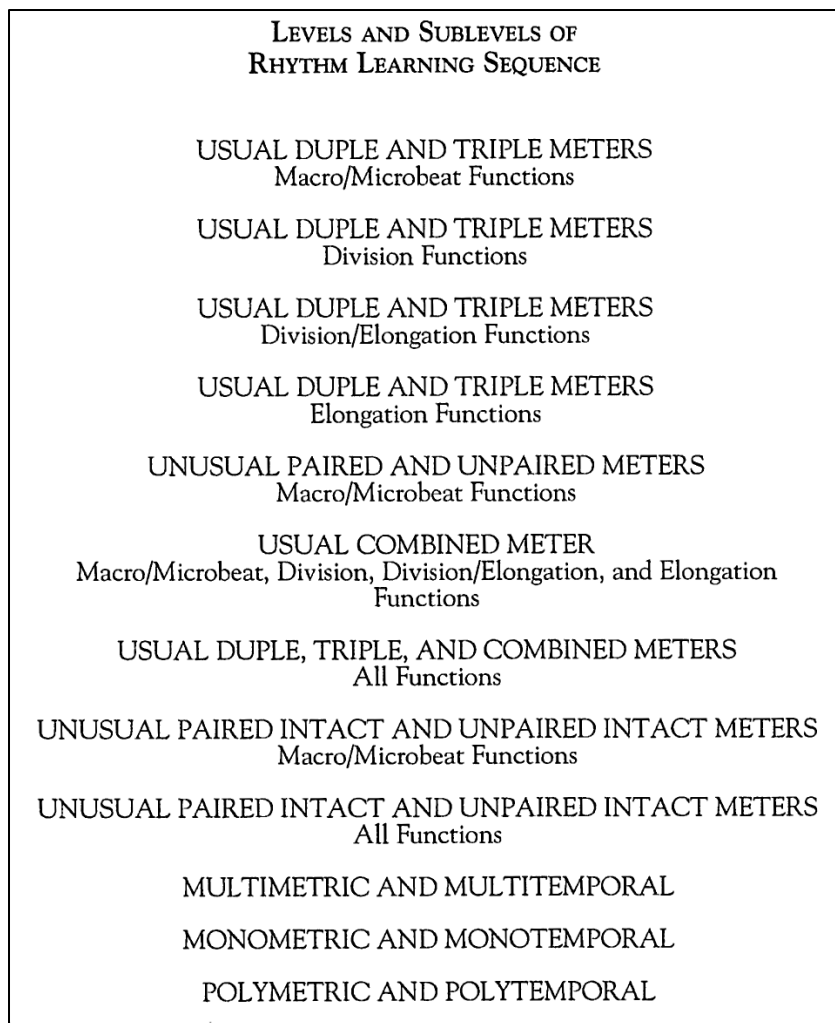


Figure 5.14. Rhythm learning sequence, from Gordon, *Learning Sequences*, 215.

Gordon also demonstrates stepwise and bridging sequencing among stages and levels as seen in figure 5.15.



**STEPWISE AND BRIDGING MOVEMENT IN RHYTHM  
LEARNING SEQUENCE**

USUAL DUPLÉ AND TRIPLE Movement	
USUAL DUPLÉ AND TRIPLE Macro/Microbeats	
USUAL DUPLÉ AND TRIPLE Divisions	
USUAL DUPLÉ AND TRIPLE Divisions/Elongation	
USUAL DUPLÉ AND TRIPLE Elongations	
UNUSUAL PAIRED AND UNPAIRED Macro/Microbeats	MULTIMETRIC AND MULTITEMPORAL
USUAL COMBINED Macro/Microbeats–Divisions– Divisions/Elongations–Elongations	MONOMETRIC AND MONOTEMPORAL
USUAL DUPLÉ AND TRIPLE	POLYMETRIC AND POLYTEMPORAL
USUAL COMBINED All Functions	
UNUSUAL PAIRED INTACT AND UNPAIRED INTACT Macro/Microbeats	
UNUSUAL PAIRED AND UNPAIRED UNUSUAL PAIRED INTACT AND UNUSUAL UNPAIRED INTACT All Functions	
MULTIMETRIC AND MULTITEMPORAL	
MONOMETRIC AND MONOTEMPORAL	
POLYMETRIC AND POLYTEMPORAL	

Figure 5.15. Meter bridging chart, from Gordon, *Learning Sequences*, 237.

*Reading Rhythm Patterns*

While the separate presentation of tonal and rhythm patterns is a must and the priority of one over the other is negligible, students should be familiar with macro-beats and micro-beats, divisions of them in Usual Duple and Usual Triple Meters, and their uses with neutral and rhythm solfege syllables before instruction may begin.<sup>36</sup> For reading rhythm patterns, Gordon has developed an instructional process similar to reading tonal patterns. Correlating excerpt examples may be seen in s 5.16 and 5.17.

Rhythm pattern example 1



Figure 5.16. Rhythm pattern example 1, from Edwin Gordon, *The Aural/visual Experience*, 64.



Figure 5.17. *Rhythm pattern example 1 with bracketed excerpts*, from Edwin Gordon, *The Aural/visual Experience*, 64.

Gordon also provides several more rhythm pattern examples in *The Aural/visual Experience* (2004).

## *Writing Rhythm Patterns*

Gordon offers his preliminary thoughts on writing rhythm patterns. First, note lengths and types of beats are unrelated. For example, in 3/4, it is commonly taught that there are three notes in the measure and the quarter note, represented by the 4, gets the beat. This cannot be true, however, because the quarter note may not always be felt as the macro-beat and entire measure may be audiated as the large pulse. As tempo and meter interact to form rhythmic foundation, the following should be noted. First, there would be no rhythmic context without meter and random sounds would be all that is audible. Without tempo, meter becomes unstable and macro-beats and micro-beats would become indiscernible amidst the instability. Gordon refutes that accents produce meter but actually only aid in establishing audiated meter.<sup>37</sup> Macro-beat divisions also have no relationship to meter. Gordon contends that terms used to indicate measure signatures such as *simple or duple*, *simple triple*, and *compound triple*, are all too often used to explain meter. Traditional theorists have taught that meter is defined by the number of beats in a measure but the division of those macro-beats is routinely ignored. Music theorists also confer that the measure signature  $\frac{3}{4}$  is a Simple Triple Meter due to the explanation of the  $\frac{3}{4}$  signature. The *simple* label is misapplied since divisions of twos and threes may actually occur.<sup>38</sup> Further, the discernment of the macro-beat, in this case a four based on the measure signature  $\frac{2}{4}$ , is mistakenly used to determine the macro-beat.<sup>39</sup> Gordon proffers musicians reliant on sheet music instead of audiation to determine measure signatures make determinations incorrectly. Accordingly measures signatures including,  $\frac{3}{4}$ ,  $\frac{6}{8}$ ,  $\frac{9}{8}$ , and  $\frac{12}{8}$  are distinct meters but all represent Usual Triple.<sup>40</sup>

Gordon contends that confusion for young students is compounded when they are taught that music written in 4/4 is called Simple Quadruple and 12/8 called Compound Quadruple. This,

then, would imply that there is some discernable difference between 2/4 and 4/4 as well as 6/8 and 12/8 when there really is none. Further, some teachers refer to measure signatures as fractions such that 2/4 directly indicates “two quarters of a whole” in each measure while 6/8 would indicate “six eighths of a whole note” per bar. It is by audiation that musicians determine macro-beat placement. Gordon concludes, “such is the difference between a musician and a mathematician.”<sup>41</sup> The terms *simple* and *compound* cancel each other out as they cannot be extended to Unusual Meters. This is because Unusual Meters are combinations of so-called simple and compound meters. Additionally, no credible explanation may be provided for explaining how duplets, triplets, quintuplets, and septuplets affect Usual or Unusual Meters. Utilizing a similar a reading tonal patterns , Gordon provides excerpts for writing rhythm patterns. See excerpt example in figure 5.18.



Figure 5.18. Example 1 for writing rhythm patterns, in Gordon, Edwin. *The Aural/visual Experience*, 101.

Gordon provides more rhythm writing examples in *The Aural/visual experience* (2004).

### *Rhythm Reading Concerns*

Teacher must be cognizant that whether rhythm or tonal patterns are taught first does matter but that they are taught sequentially before they are taught together in melodic patterns. Tonal and rhythm patterns represent pictures within the audiation vocabulary. Notes therein cannot be audiated individually. It is crucial that context is audiated before pattern reading activities. This extends to identifying the tonality and identifying macro-beats/micro-beats. Establishing the notated keyality is important as well if only so students with *perfect pitch* will not be distressed. Pentatonic melodies are not included in this series as they imply no specific tonality.<sup>42</sup> As rhythm is comprised of its fundamental parts, macro-beats, micro-beats, and patterns, movement to and audiation of these elements is also foundational. Additionally, pre-notation systems are *unnecessary* and create confusion. Students who have difficulty in reading music have an audiation problem and not one residing in visual decoding. Terms like *low* or *high*, *whole step* or *half step*, *short* or *long* are abstract at best. They do not mean anything aside from their associated music patterns if there is no audiation. Theoretical constructs are well left out of instruction until the students can read notation.<sup>43</sup>

### Context

The idea of context is critical in that audiation cannot occur outside it.<sup>44</sup> In fact, to know one's own aural place or context is to audiate.<sup>45</sup> Audiation within context includes the harmonic structures wherein the musician's part(s) interact. Audiation taught in context, and, for Jorden, "is incredibly powerful because it harnesses a deeply human impulse to listen to and connect with each other."<sup>46</sup> Accordingly, musicians who can audiate context can also audiate the musical content.<sup>47</sup> Gordon illustrates a taxonomy of harmonic patterns that provide context in figure 5.19,

various patterns across Major and Harmonic Minor modes as seen in figure 5.20, and harmonic patterns arranged according to difficult as seen in figures 5.21-5.23.

### TAXONOMY OF HARMONIC PATTERNS

MONOTONAL/MONOKEYAL

Major

Harmonic Minor

Dorian

Phrygian

Lydian

Mixolydian

Aeolian

Locrian

Figure 5.19. Taxonomy of harmonic patterns, from Edwin Gordon, *Learning Sequences*, 307.

MONOTONAL/POLYKEYAL

Major

Five staves of musical notation in treble clef, each containing six chords. The chords are: C major, D major, E major, F major, G major, and A major. The first four staves show the chords in a sequence of two measures each, with a bar line after the second measure. The fifth staff shows the same sequence of chords in a single measure.

POLYTONAL/MONOKEYAL

Major

One staff of musical notation in treble clef, containing three chords: C major, F major, and C major.

Harmonic Minor

One staff of musical notation in treble clef, containing three chords: C major, F major, and C major.

POLYTONAL/POLYKEYAL

Major

Two staves of musical notation in treble clef, each containing six chords. The first staff shows the chords: C major, D major, E major, F major, G major, and A major. The second staff shows the chords: C major, D major, E major, F major, G major, and A major.

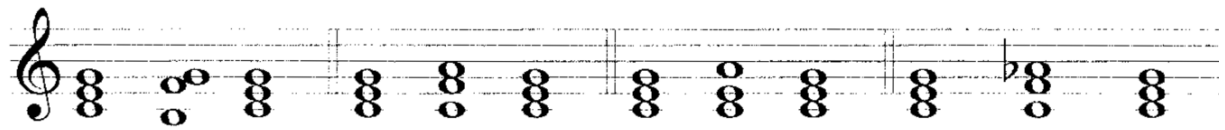
Figure 5.20. Taxonomy of harmonic patterns 2, from Edwin Gordon, *Learning Sequences*, 308.

# DIFFICULTY LEVELS OF HARMONIC PATTERNS

## EASY

MONOTONAL/MONOKEYAL

Major



Harmonic Minor



Dorian

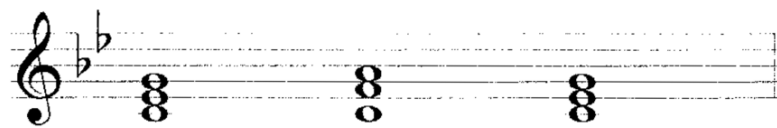


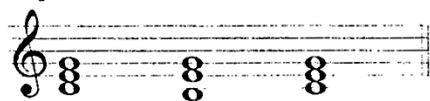
Figure 5.21. Sequence of harmonic difficulty, from Edwin Gordon, *Learning Sequences*, 210.



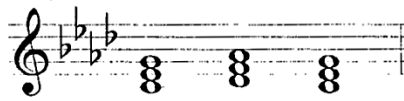
## MODERATELY DIFFICULT

### MONOTONAL/MONOKEYAL

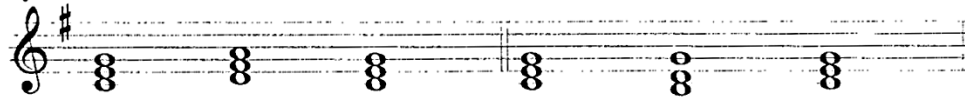
Major



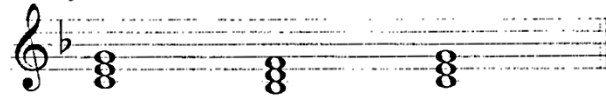
Phrygian



Lydian



Mixolydian



Aeolian



Locrian



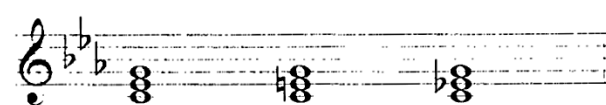
### MONOTONAL/POLYKEYAL

Major



### POLYTONAL/MONOKEYAL

Harmonic Minor



### POLYTONAL/POLYKEYAL

Major

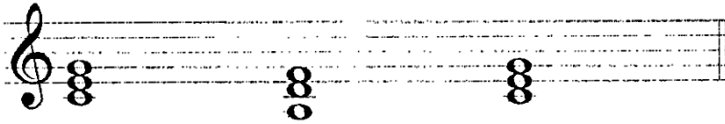


Figure 5.22. Sequence of harmonic difficulty 2, from Edwin Gordon, *Learning Sequences*, 211.

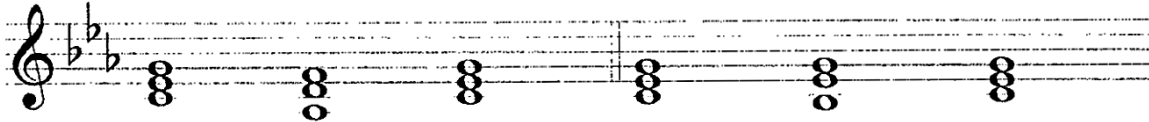
# DIFFICULT

## MONOTONAL/MONOKEYAL

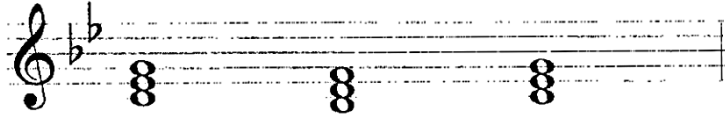
Major



Harmonic Minor



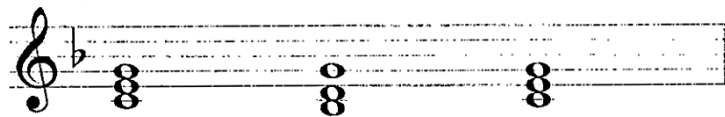
Dorian



Phrygian



Mixolydian



## MONOTONAL/POLYKEYAL

Major



## POLYTONAL/MONOKEYAL

Major

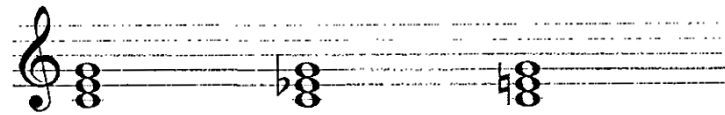


Figure 5.23. Sequence of harmonic difficulty 3, from Edwin Gordon, *Learning Sequences*, 212.

### *Context: Tonal Modes, Tonalities and Keyalities*

Additionally, Gordon states that “context refers to tonal modes- major, minor, Dorian, mixolydian.”<sup>48</sup> “The overall sound, sonance, of a progression of harmonic patterns in relation to a tonality and keyality gives overall contextual meaning to harmonic patterns.”<sup>49</sup> However, music must first be audiated, Gordon contends, “before its key signature can be assigned keyality and tonality.”<sup>50</sup> Objective tonality and keyality are achieved through consensus and subjective tonality exists where consensus does not.<sup>51</sup> Gordon illustrates relative keys or multitonal/multikeyal classifications,

have three functions: multitonal/multikeyal, multitonal/unikeyal, and multikeyal/unitonal. Only in multitonal/multikeyal function is the sound of do the same (as in what are traditionally called relative keys), and only in the unikeyal/multikeyal function does keyality remain the same (as in what are traditionally called parallel keys).<sup>52</sup>

### *Pattern Instruction in Context*

Conway confirms that pattern or content instruction be employed in context (i.e. using tonic, dominant, subdominant patterns in major and minor tonalities or a particular meter beat).<sup>53</sup> Gordon expounds, “when a single word has more than one definition, it is not until it becomes part of a phrase or sentence that its syntactical meaning can be understood;” therefore, “tonality and/or meter must be established” because, “these same patterns will be audiated quite differently when performed in the context of a different tonality or different meter.”<sup>54</sup>

### *Reading melodic patterns*

When students are able to read tonal and rhythm patterns separately, they are ready to engage melodic patterns where tonal and rhythm simultaneously occur. When reading both together, tonal solfege becomes neutral syllables and even lyrical text may be incorporated. Conversely, when text is learned with tonal pattern content, musicianship suffers. Gordon has determined a process for learning melodic patterns similar to his reading tonal patterns procedures. Reading is the pre-cursor to so-called sight-reading which is little more than reading unfamiliar music.<sup>55</sup>

### *Learning Outside of Context*

Converse to music learning theory instruction, Norman has experienced instrumental teaching that was more about operant conditioning since students learned to press certain buttons when they saw certain notation.<sup>56</sup> Grunow echoes this sentiment in that without a musical learning context, playing the actual instrument becomes more automatic with no connection to audition. In this case, the student bears no ownership for his musicianship.<sup>57</sup>

## Content

While words form the content in spoken and written language, patterns, tonal, rhythmic, and harmonic, form the content in music.<sup>58</sup> Major and minor are the first levels in Tonal Content.<sup>59</sup> The next level consists of rote songs and tonal patterns in Dorian, Mixolydian, and Aeolian tonalities with tonalities based on each resting tone.<sup>60</sup> Other modes less frequently used include Phrygian, Lydian, and Locrian or the *Unusual Modes*. The harmonic minor mode is more common. Each has a different tonality based on its resting tone.<sup>61</sup> The third level, multitonal and

multikey modulations, in one part are incorporated followed by polytonal and polykeyal content in two or more parts. Finally, harmonic progressions in two or more parts are included.<sup>62</sup> After this, Mark and Madura delineate, “sequential curricular objectives for tonal learning and rhythmic learning can be understood. . . ; for any level of content, learning begins at the Aural/Oral [Stage] and continues through the learning sequence with or without appropriate spirals to inference skill levels.”<sup>63</sup> Gordon’s sequence of tonal content instruction is illustrated in figure 5.24.

LEVELS OF TONAL CONTENT LEARNING SEQUENCE

MAJOR AND HARMONIC MINOR TONALITIES

Tonic and Dominant Functions

MAJOR AND HARMONIC MINOR

Subdominant Function

MAJOR AND HARMONIC MINOR TONALITIES

All Functions

MIXOLYDIAN TONALITY

Tonic and Subtonic Functions

DORIAN TONALITY

Tonic, Subtonic, and Subdominant

LYDIAN TONALITY

Tonic and Supertonic Functions

PHRYGIAN TONALITY

Tonic, Supertonic, and Subtonic Functions

AEOLIAN TONALITY

Tonic and Subtonic Functions

LOCRIAN TONALITY

Tonic, Subtonic, and Mediant Functions

MIXOLYDIAN, DORIAN, LYDIAN, PHRYGIAN, AEOLIAN,  
AND LOCRIAN TONALITIES

All Functions

MULTITONAL AND MULTIKEYAL

Unitonal and Multikeyal, Multitonal and Multikeyal,  
and Multitonal and Unikeyal

MONOTONAL AND MONOKEYAL

POLYTONAL AND POLYKEYAL

Figure 5.24. Tonal content learning sequence, from Edwin Gordon, *Learning Sequences*, 171.

### *Teaching Sequence*

Gordon describes an ideal Music Learning Theory teaching sequence: Students listen to songs and hear patterns in context and then learn to sing and chant patterns they have heard using neutral syllables. Next, they perform through imitation the sound of those patterns using syllables. They audiate, create, and improvise their own patterns. Following the model of performing those same patterns they have heard and then associating syllables with those patterns, students learn to read with already-learned patterns in music notation. There is no immediate need to teach letter and time-value names or music theory.<sup>64</sup>

Schleuter elucidates, “Aural familiarity is gained with listening to and experiencing simple melodies, rhythms, and patterns. Imitating pitch and rhythm patterns (babbling) and eventually singing simple songs . . . [in an] initial attempt to speak music and develop repertoire (vocabulary).”<sup>65</sup> He adds that there are three considerations to make as “pattern content progresses through the learning skills sequence: 1. Is music notation present during instruction or not? 2. Is the tonal or rhythm, pattern familiar or unfamiliar? And 3. Is it extracted from a familiar or unfamiliar tune?”<sup>66</sup>

Gordon suggests some parameters:

Children should be exposed to an abundance of tonal patterns belonging to the same classification--- for example, tonic patterns (variations of *do mi so* in major) and dominant patterns (variations of *so ti re fa* in major) as well as an abundance of rhythm patterns belonging to the same classification--- for example, macro/micro-beat patterns (variations of *du de* in usual duple and division patterns (variations of *du ta de* in usual duple).<sup>67</sup>

Prior to performing songs, students may be led to audiate the various tonal and rhythmic patterns therein as part of their learning because these patterns will be audiated differently by students when they appear in different contexts depending on tonality and meter. Additionally,

the internal notes of a tonal pattern will be more difficult for a student to recall so these patterns should be established distinctly from one particular style.<sup>68</sup>



## Rhythm

### Elements Of Rhythm

Deviating sharply from traditional approaches and challenging current pedagogy, Gordon's theories applied to rhythm, first postured in the early 1970s, endeavor toward his self-labeled "appropriate modes for teaching rhythm," based on historical and empirical research.<sup>1</sup> Gordon's *re-defining* of rhythm occurred as a result of his initial contention that the integral elements were *tempo beats*, *meter beats*, and *melodic rhythm*.<sup>2</sup> Grunow opines that Gordon initially explained this from an aural perspective so that meter could then be determined without referencing notation.<sup>3</sup> By 1980, citing confusion among his own terminology, Gordon clarified rhythm as *patterns*, *macro-beats*, and *micro-beats* audiated simultaneously.<sup>4</sup> Rhythm patterns may include macro-beats or micro-beats, divisions or elongations of macro-beats or micro-beats with or without the inclusion of rests and ties.<sup>5</sup> Rhythm patterns establish melodic rhythm, macro-beats establish meter, and micro-beats establish tempo.<sup>6</sup> Melodic rhythm, originally held as an integral part of rhythm, is the designation for the rhythm of melody or text set to music and, according to Gordon, the "simultaneous interaction of tempo beats, meter beats, and shorter and longer rhythm values" is "fundamental to tonal aspects of music."<sup>7</sup>

### *Challenges to Rhythm Audiation*

Gordon espouses that musicians cannot audiate rhythm with time-value names and counting (discussed further in Chapter 7 Tonal and Rhythm Solfege) which are typical rhythm learning practices.<sup>8</sup> Also, students may more obviously demonstrate limitations since there are no correlating physical actions such as depressing instrument valves or covering keys that correlate to correct rhythm patterns.<sup>9</sup> Rooted, then, in this idea that traditional rhythm instruction actually

hinders musical accomplishment, Gordon adds that the difference lies in being told about rhythm in contrast to feeling rhythm through movement, breathing, and performing.<sup>10</sup> “Movement supersedes, not follows, verbalizations.”<sup>11</sup> Gordon uniquely posits that “the brain understands time, whereas the body is more capable of understanding both time and space, with space giving meaning to time. Space can exist outside musical time, but time in all forms is dependent upon space.”<sup>12</sup>

### *Macro-beats and Micro-beats*

The longest, basic, underlying pulses or beats discerned in musical rhythm are macro-beats, originally labeled *tempo beats* by Gordon.<sup>13</sup> Macro-beats are crucial to feeling and comprehending rhythmic patterns including syncopation and the corresponding micro-beats superimposed on them.<sup>14</sup> Micro-beats are derived from the symmetric division of macro-beats and observed to determine tempo since they are equally spaced, in groupings of two or three, superimposed on a [macro] beat.<sup>15</sup> Gordon’s examples of Usual Meter macro-beats are illustrated in various meters in figures 6.1-6.2.

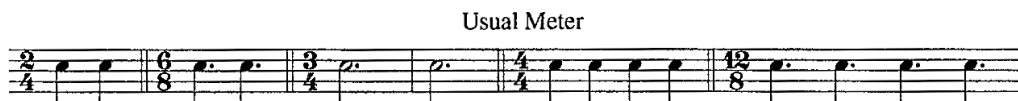


Figure 5.25. Usual Meter macro-beats, from Gordon, *Learning Sequences*, 175.

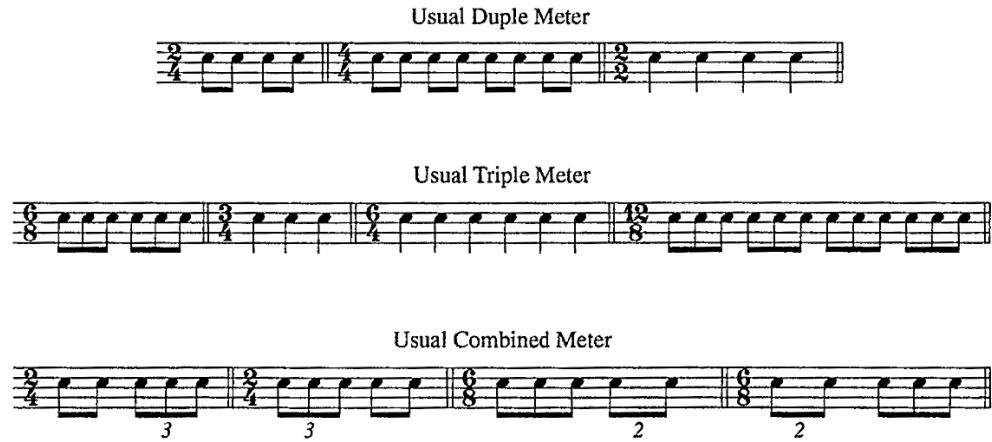


Figure 5.26. Usual Meter micro-beats, from Gordon, *Learning Sequences*, 176.

Without macro-beat audiation, rubato or changing tempo is impossible. Second, the more profound the audiation skill, the more distant macro-beats may be from one another, and, third, macro-beat or micro-beat audiation has no relationship to music notation.<sup>16</sup> When two macro-beats are audiated in place of the anticipated one macro-beat as is evidenced by a quintuplet, Gordon determines “the two macro-beats are called *transfigured*” as seen in figure 6.3. Within a septuplet, three underlying or *transfigured* macro-beats are audiated where one is anticipated.<sup>17</sup>

### *Transfigured Macro-beats*



Figure 5.27. Transfigured macro-beats, from Gordon, *Learning Sequences*, 210.

## Meter

The audiation of meter establishes the basis for identification and rhythmic context in music as “in usual meter, micro-beats establish meter and macro-beats establish tempo. . . [and] in unusual tempo, macro-beats establish meter and micro-beats establish tempo,” Gordon asserts.<sup>18</sup> The terms *duple* and *triple* are utilized in Music Learning Theory rather than the traditional *simple* and *compound* meter labels.<sup>19</sup> No matter what the meter is, the beat groupings are no more than duple or triple (not quadruple meter, etc.).<sup>20</sup>

### *Usual Meter*

Usual Meter is determined by the audiation of the macro-beats and macro-beat division into equal lengths.<sup>21</sup> Neither the speed of nor accenting among macro-beats has a direct correlation to meter although they affect metric audiation. Further, audiation is limited to just four durations in a rhythmic grouping but continuous audiation *across groupings* must occur to establish rhythmic context in music. It is through this comprehensive audiation that students determine meter.<sup>22</sup> Traditional terminology does not typically discriminate the differences in usual and unusual meters and if unusual meters are identified, they are typically labeled *composite*.<sup>23</sup> Usual Duple Meter occurs when a macro-beat is divided into 2 equal durations and Usual Triple Meter occurs when macro-beats are divided symmetrically into three equal parts.<sup>24</sup> When some micro-beats are divided two ways symmetrically and others are divided three ways, in the result is Usual Combined Meter.<sup>25</sup> Macro-beat subdivision has no bearing on meter at all.<sup>26</sup> Patterns of macro-beats and micro-beats may include various combinations of either, one, the other, or combinations of divisions of both.<sup>27</sup> Usual meters are seen in s 6.4-6.5 and Gordon

provides examples of rhythm patterns superimposed over micro-beats and then macro-beats in figure 6.6.

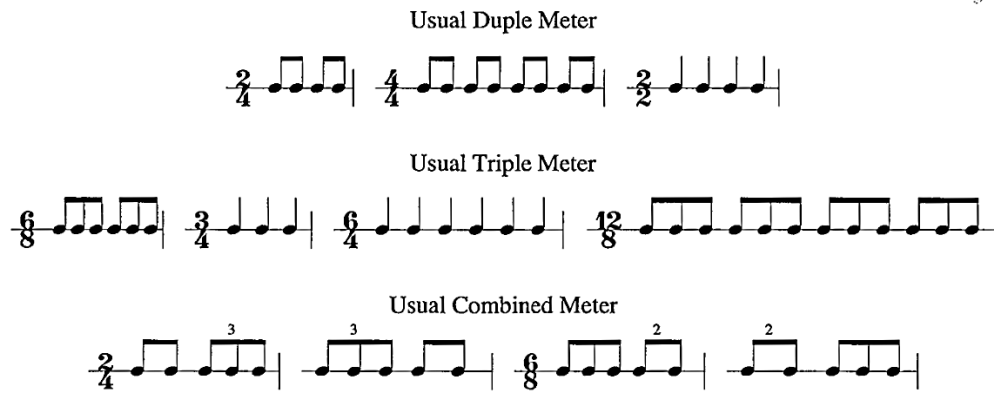


Figure 5.28. Usual Meter micro-beats, from Edwin Gordon, *Taking a Reasonable and Honest Look at Tonal Solfege and Rhythm Solfege* (Chicago: GIA Publications, 2009), 43.



Figure 5.29. Usual Meter subdivided micro-beats, from Gordon, *Taking a Reasonable and Honest Look*, 45.

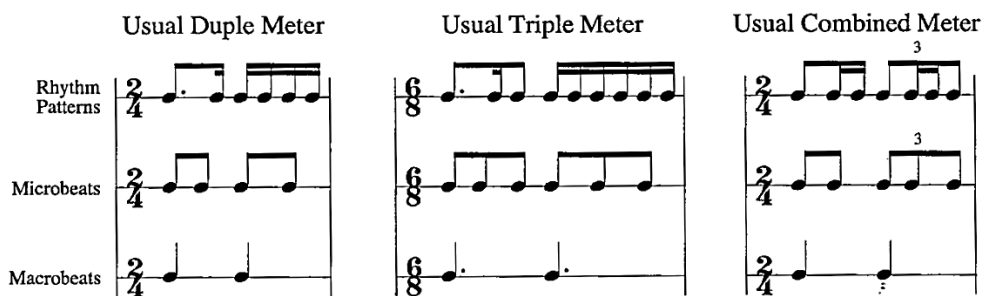


Figure 5.30. Usual Meter rhythms superimposed over micro-beats and macro-beats, from Gordon, *Taking a Reasonable and Honest Look*, 45.

### *Unusual Meter*

Unusual Meter designates those meters where all macro-beats are not of the same length such as Unusual Paired, Unusual Unpaired, Unusual Paired Intact, and Unusual Unpaired Intact meters.<sup>28</sup> Unusual Paired includes two macro-beats that are not of equal length. Unusual Unpaired includes three macro-beats and the lengths of each are not equal.<sup>29</sup> The term *intact*, occurring only in Unusual Meter, is applied when, as Gordon states, one intact macro-beat exists in the rhythm pattern and “can be divided into only divisions of micro-beats.”<sup>30</sup> That is, an intact beat is simultaneously a macro-beat and its own micro-beat as the two sound exactly the same.<sup>31</sup>

Unusual Intact designates when some macro-beats are divided into three micro-beats and some into two micro-beats, with one or more being the length of a micro-beat (this being called the *intact* macro-beat). Unusual *Paired* Intact Meter occurs when 2 macro-beats appear in a rhythm pattern with one intact and the other not. Unusual *Unpaired* Intact Meter occurs when three macro-beats appear in a rhythm pattern with one or two beats intact but not all three.<sup>32</sup> Rarely does an entire piece of music consist of Unusual Meter. Commonly, one type is found in combinations with types of Usual Meter. Rather, it is common to find musical examples where metric modulations occur from one unusual meter to another or back and forth with Usual Meter.<sup>33</sup> For Gordon, unusual meters are typified with macro-beats as illustrated in figure 6.7, in micro-beats as illustrated in figure 6.8, and through micro-beat subdivision as illustrated in figure 6.9.

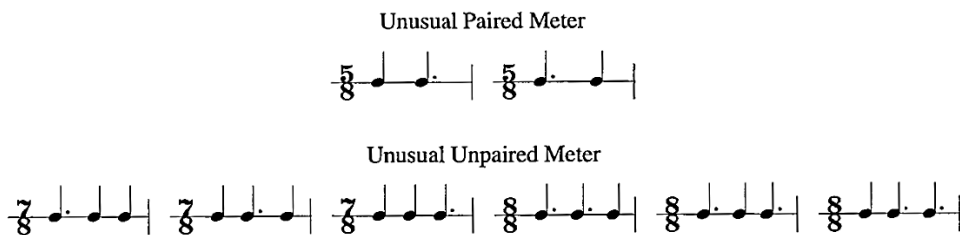


Figure 5.31. Unusual meters at the macro-beat level, from Gordon, *Taking a Reasonable and Honest Look*, 47.

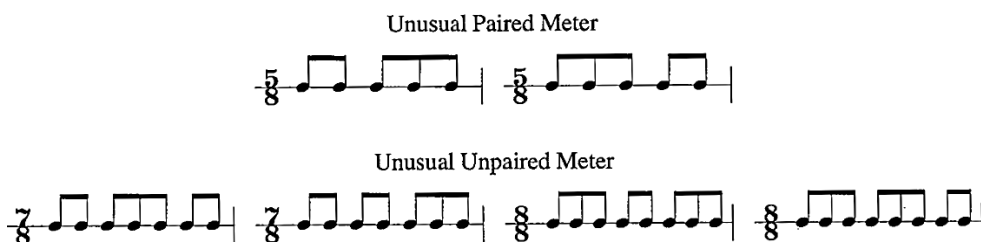


Figure 5.32. Unusual meters at the micro-beat level, from Gordon, *Taking a Reasonable and Honest Look*, 47.

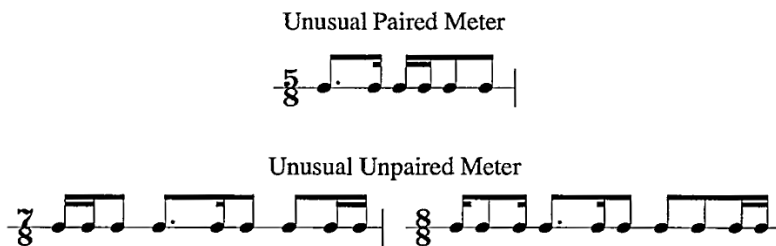


Figure 5.33. Examples of subdivided unusual meters at the micro-beat level, from Gordon, *Taking a Reasonable and Honest Look*, 47.

In figure 6.10, Gordon illustrates unusual meter patterns superimposed over micro-beats and their macro-beats and, in figure 6.11, an illustration of Unusual Paired and Unpaired meters are illustrated.

Figure 5.34. Unusual Meter rhythms superimposed over micro-beats and macro-beats, from Gordon, *Taking a Reasonable and Honest Look*, 48.

Figure 5.35. Examples of Unusual paired and unpaired intact meters, from Gordon, *Taking a Reasonable and Honest Look*, 49.

### *Meter Confusion*

Simple or *compound duple* and simple or *compound triple* are traditional designations commonly used to label and define meter. Students are typically led to determine these meters by concluding the top number of a time signature to be the number of beats in a measure with the corresponding bottom number determining what kind of note gets the beat. The actual division of macro-beats therein is not a consideration.<sup>34</sup> For example, “students learn music in 2/4 is simple duple meter, duple because there are two beats (quarter notes) in a measure and simple because each beat is divided into two sub-beats (eighth notes).<sup>35</sup> Gordon counters that meter is best not thought of as a fraction and “should not be written as a fraction in rhythm notation. This confuses



students. Further, when those students who have encountered math instruction see  $2/4$  explained as a fraction, they then want to reduce to  $1/2$  which is not musically applicable.”<sup>36</sup> Even so, each student may audiate the meter differently from how it is notated.<sup>37</sup>

Standardly, students are taught that  $3/4$  is called *simple triple meter* because there are three beats in a measure and simple because a quarter note will receive one beat. This practice mistakenly assumes that note values indicate macro-beats or micro-beats when they do not.<sup>38</sup> Similar to two key signatures spelled differently and sounding the same, called *enharmonic*, two time signatures or measure signatures that are audiated the same, such as  $3/4$  and  $6/8$ , are called *enrhythmic*.<sup>39</sup> For example, think of the *Scherzo* from Beethoven’s 9th and Albinoni’s *Adagio*. Both are written in  $3/4$  time but are otherwise very different.<sup>40</sup> Music ensemble conductors are a good source to consider for how music is audiated or felt versus notated. No conductor will or should move in a particular beat pattern simply because it is notated that way. For example,  $6/8$  could be conducted in gestures of 6 or in 2. The macro-beats offer the determination.<sup>41</sup>

## Tempo

Like meter, tempo may be discerned objectively or subjectively.<sup>42</sup> A group of macro-beats in one music section may be audiated as micro-beats in another. Tempo, as it relates to accents, agogic or dynamic, and their speed, Gordon explains, “has no systematic effect on how meter is audiated,” since accents only give the perception of space before and after pitches. Neither contrapuntal nor harmonic rhythm affect an established tempo.<sup>43</sup> Tempo, then, may be determined in two ways (although the difference in audiation is not always discernable): the speed of macro-beats and through observing the different lengths of macro-beats in rhythm patterns. Both factors interact effortlessly across time and space.<sup>44</sup> The sense of tempo may be

objective, recognized by several musicians in the ensemble, or subjective- individually comprehended.<sup>45</sup>

### *Movement, Time, and Space*

Continuous movement provides the time and space that Gordon re-imagined from [Rudolf] Laban's work: "Time is sustained or separated. Space is indirect or direct."<sup>46</sup> Gordon contends that audiated time is superimposed on audiated space. Without one or the other, natural flow is impeded or musical phrasing is latent. Tempo exists within space but space can exist apart from time. This is precisely why students must experience space before concepts of musical time such as clapping hands or tapping feet occur.<sup>47</sup>

When movement is continuous and freely flows, a feeling of infinity is present in place of time and space.<sup>48</sup> This allows for maximum achievement and enjoyment of rhythm and musical time.<sup>49</sup> When audiatonal flow interrupted, it is evident in performance. Therefore, as supported by [Émile] Jacques-Dalcroze, foot-tapping or counting, in contrast to natural body movement, counters sustained body movement, space, weight, and flow.<sup>50</sup> While educators may attempt to teach students to audiate rhythm through notation, the greatest way to understand it is through movement while breathing and subsequent audiation of that body movement.<sup>51</sup> This kinesthetic information is then transmitted to the brain via the nervous system. Over a period of time, students begin to audiate movement without actually moving.<sup>52</sup> Deep breathing allows for audiation and dissuades imitation.<sup>53</sup>

## Rhythm as a physical sensation

When rhythm becomes a physical sensation, note values and counting disrupt performance as, “expression. . . surrenders to rigidity” and rhythm cannot be performed adequately.<sup>54</sup> Gordon concludes,

Rhythm is presented to students of all ages as an intellectual pursuit, emphasizing note names, note values, arithmetic, definitions of measure signatures as meter and time signatures, timing, and counting. Information is passed into students’ minds rather than allowing rhythm to come out of them physically through free flowing, continue movement in space. Unless student experience musical space using their bodies, they will discover it is difficult to come to practical terms with time. Time occurs within space, so without a feeling for space, time keeping is elusive. Appropriate guidance in movement is not dance. Dance lessons promote rigidity, the opposite of what is desirable in development of rhythm.<sup>55</sup>

Traditional teaching of rhythm is bound in counting. This certainly requires brain activity but, Gordon contests, “without the experience of engaging the body in movement as a readiness, counting is erratic,” and, has, at best, only a slight relationship to rhythm.<sup>56</sup>

## Measure Signatures

Although Gordon first proffered the label, meter signature, to replace the traditionally-used *time signature*, he later espoused the use of the term *measure signature* since different time signatures may actually be used to indicate the same meter but not any *specific* meter, time, or tempo.<sup>57</sup> He claims, “There is no direct relation between notation, particularly a measure signature, and the meter of a piece of music.”<sup>58</sup>

## *Enrhythmicity*

Enrhythmicity, similar to the term *enharmony* in tonal respects, was defined by Gordon in 1981 to “refer to those [rhythm] patterns that sound the same but are notated differently.”<sup>59</sup>

Accordingly, measure signatures are also labeled enrhythmic as the actual meter is determined “through feeling, body movement and audiation rather than by inadequate and misleading definitions.” Numbers seen in a measure signature refer to macro-beats or micro-beats but not generally just to beats since the numbers are arbitrary. Any one could be interchangeable with others (i.e. 4/4, 4/2, 2/8, 2/2, and 2/16).<sup>60</sup> Given this fact, musicians must look beyond the time signature at rhythm patterns before a meter may be audiated.<sup>61</sup> In figure 6.12, Gordon illustrates enrhythmic meters with indicated, vertical grouping of four sounding identical but notated differently.

<p>USUAL DUPLÉ METER</p>	<p>USUAL TRIPLE METER</p>
<p>UNUSUAL PAIRED METER</p>	<p>UNUSUAL UNPAIRED METER</p>

Figure 5.36. Enrhythmic patterns and measure signatures, from Gordon, *Learning Sequences*, 198.

### *The Importance Of Appropriate Rhythm Theory*

Gordon proclaims, “rhythm is arguably the most important component in music,” and “is central to musical experience and understanding.”<sup>62</sup> Melody would be difficult to understand, let alone organize, without the role of rhythm.<sup>63</sup> Children grow through movement activities that Dalby explains are “consistent with essential rhythmic characteristics of music they are studying,”<sup>64</sup> and the structure of meter and rhythm as audiated. “[Dr. Edwin E.] Gordon [and other music theorists (such as Dalcroze, and [Carl] Orff) quite consistently emphasize that rhythms, rather than being an intellectual process like math, reside in the body, itself, and must be manifested through movement to be meaningful.”<sup>65</sup> Still, Dalby postulates “that many music teachers attempt to teach rhythm through mathematical analysis of rhythm relationships beginning with abstract concepts such as the number of eighth notes in a quarter notes or the equation for computing dot durations. This approach may be ineffective, however, because rhythm audiation and mathematical thinking are very different, cognitive processes.”<sup>66</sup> Thus, teachers must provide opportunities to move rhythmically in response to rote songs and other music as they perpetuate student comprehension.<sup>67</sup> Informal exposure to rhythmic movement is particularly important for young children as it enables students to develop and demonstrate steady beat and “all theories about rhythm agree about the importance of beat function.”<sup>68</sup> Students can learn, perform and audiate rhythms when they can demonstrate a steady beat.<sup>69</sup>

## Chapter 6 Tonal and Rhythm Solfege

Solfege (sɒl' fɛʒ) syllables are utilized in development of audiation as students associate sounds to sung or chanted syllables.<sup>1</sup> As students learn to solfege essential tonal and rhythm patterns, they teach themselves- similar to words in language. Thus, the use of a solfege syllable system emphasizes syntax.<sup>2</sup> Gordon extensively reviews different syllable systems from the audiatonal vantage and purports that, “a variety. . . exist for teaching tonal reading readiness and tonal reading and writing” and that tonal syllables use is the most effective way to gain understanding of various tonalities.<sup>3</sup> With vast experiences in various tonal patterns, students stabilize what Azzara describes as “the difference between having to create something and having something to create.”<sup>4</sup>

### Tonal Syllable Systems

1. Letter Names
2. Interval Names
3. Numbers
4. Fixed or Immovable-*Do* (Dō)
5. Movable *Do* with a *Do*-based Minor
6. Movable *Do* with a *La* (Lä)-based Minor<sup>5</sup>

#### *1. Letter Names*

The Letter Names System, based on using the letter names that correlate directly to the lines and spaces of a musical staff, is impractical for Gordon because “the symbolic association and theoretical understanding levels of skill learning sequence must serve as prerequisites for their use.”<sup>6</sup> This form of visual association does not consider the function of the tonal pattern in context.<sup>7</sup>

## 2. Interval Names

Interval names are often taught out of tonal context at the Verbal Association Stage as the instructor leads students to sing the interval with the actual interval name. For example, in figure 7.1, fourth measure, the teacher would sing *Perfect Fourth* in the correlating pitches of *C – F*. This challenges audiation, Gordon contends, “if only because letter names, accidentals, and key signatures must be memorized before students are able to cope with the names of intervals.”<sup>8</sup>

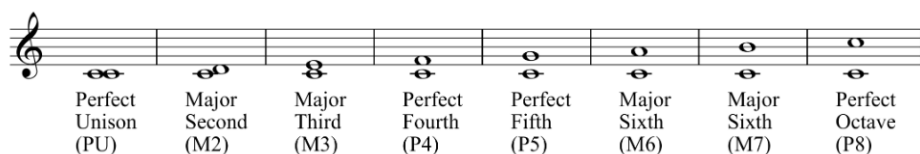


Figure 6.1. Interval names used as solfege for same intervals, from David Kulma, <https://davidkulma.com/musictheory/intervals>.

## 3. Numbers

Gordon argues that the Number System, or assigning 1-2-3-4-5-6-7-8 to the diatonic scale (instead of *do re mi fa so la ti do*), is the worst of the systems because it cannot be used outside of the diatonic or normally occurring scale (there are no syllables for chromaticism or the use of non-diatonic pitches- in the key of C. Thus an encountered *C#* would still only have the number label *1* also used for the *C*.) It is confusing when referring to an ascending tonic triad as 1-3-5 or, even more so descending as 5-3-1.<sup>9</sup> Using numbers may further confuse students when melodic lines descend and different tonalities are utilized but with the same numbers (such as *melodic minor tonality*).<sup>10</sup> Some educators claim the Number System is a naturalist approach to the diatonic scale but Gordon responds that this forces its adherents to remain dependent on piano use when reading music.<sup>11</sup> See scale degree numbers in figure 7.2.

ISO:	D4	E4	F#4	G4	A4	B4	C#5	D5
Scale degree:	1̂	2̂	3̂	4̂	5̂	6̂	7̂	8̂/1̂
Solfège:	do	re	mi	fa	sol	la	ti	do

Figure 6.2. Scale with letter names, numbers, and solfège syllables, from “Scales and Scale Degrees” Open Music Theory. <http://openmusictheory.com/scales.html>.

#### 4. Fixed-Do or Immovable-Do

In the Fixed-Do or Immovable-Do system, the syllable *Do* is always the pitch C. For example, the E Major Scale would begin and end on *Mi* (Mē).<sup>12</sup> Gordon finds, “This [is] impractical because tonal patterns [take] on different . . . syllables with a change of key.”<sup>13</sup> Further because only seven syllables are utilized, *do re mi fa so la ti*, diatonic and chromatic pitches with the same letter name “must be performed with different sounds using the same syllable.”<sup>14</sup> While this approach is certainly popular in use, Bluestine opines that it is inconsistent with how audiation actually occurs. “The main problem with the Fixed-Do system is that, in order to use it, children must learn twelve different verbal patterns that are audiated *the same way*”<sup>15</sup> (see two examples in figure 7.3). To utilize this labelling system, the students must already be experienced with music theory, read notation, and know how to audiate well. It is designed to improve music reading but there is no basis for audiation to develop.<sup>16</sup>





Figure 6.3. Examples of Fixed-do, from “*Movable ‘Do’ vs Fixed ‘Do.’*” Teaching Children Music, September 25, 2014. <https://www.teaching-children-music.com/2012/10/movable-do-vs-fixed-do/>.

### 5. Movable Do with a Do-based Minor

In *Movable Do with a Do-based Minor*, every tonic is labelled *Do*, thus abandoning tonality for keyality as defined in Chapter 5. Whether major, harmonic minor, Dorian or Mixolydian modes, the resting tone is always *Do*.<sup>17</sup> Bluestine declares that *Movable Do* with *Do*-based Minor cannot be considered because “it plays tricks with. . . audiation.” It confuses the listener into thinking that all tonalities are really in major tonality with chromatic alterations.<sup>18</sup> Further, because of the emphasis on keyality, audiation is seldom developed without notation and theoretical comprehension as prerequisites.<sup>19</sup> See figure 7.4 for A Harmonic Minor example.



Figure 6.4. Movable do with a do-based minor, from “*Movable ‘Do’ vs Fixed ‘Do.’*” Teaching Children Music, September 25, 2014. <https://www.teaching-children-music.com/2012/10/movable-do-vs-fixed-do/>.

### 6. Movable Do system with La-based Minor

The *Movable Do* System with *La*-based Minor is the only configuration based on syntax and therefore is advantageous in its use (see figure 7.5); it allows for learners to audiate

relationships *between* pitches rather than focusing *on* individual notes particularly when letter naming is used.<sup>20</sup> Diatonic tonal syllables include *do re mi fa so la ti do*, ascending accidentals are *di ri fi si li*, and descending accidentals are *ra me se la te*.<sup>21</sup> Movable *Do* system with *La*-based Minor is more advantageous in expanding audiation and emphasizing varied tonalities due to a changeable resting tone.<sup>22</sup> While movable *do* with *la* based minor is preferable, it is not perfect, Gordon explains, “because there are no syllables for the raised third and lowered fourth, they are performed using enharmonic syllables *fa* and *mi*.”<sup>23</sup> The provision for independent syllables that associates symbolically with chromaticism such as *si* in harmonic minor, ease in modulation, tonal consistency, linkage in specific content, and lack of polysyllabic labels are among the positive attributes.<sup>24</sup>



Figure 6.5. Movable do with a la-based minor, from “Movable ‘Do’ vs Fixed ‘Do.’” Teaching Children Music, September 25, 2014. <https://www.teaching-children-music.com/2012/10/movable-do-vs-fixed-do/>.

### Rhythm Solfege Systems

Gordon also applied Music Learning Theory across a wide variety of rhythm syllable systems that emphasize music reading, articulation, and/or audiation development (see figure 7.20). Among them there is seemingly less misunderstanding than in tonal syllables and that may be due to the much longer history of tonal solfege, originating in the 11<sup>th</sup> century, versus rhythm solfege, first considered in the 1800s. The primary distinction among rhythm solfege systems is the traditional application on note values and the more contemporary application of *beat function*. Gordon contends that a rhythm syllable system must accomplish the following:

1. Be fundamentally different for patterns in duple, triple, and unusual meters
2. Be fundamentally different for tempo beats and for each successive meter beat
3. Provide for all basic and uncommon patterns
4. Be easily articulated vocally
5. Not be associated with individual note values
6. Not conflict in name with tonal syllables<sup>25</sup>

Rhythm solfege syllable systems include:

1. Time-value Names
2. Eurhythmics
3. Mnemonics
4. Counting or 1e+a (wΛn ē ænd α)
5. Kodály syllables<sup>26</sup>
6. Takadimi (tak α di mi)
7. Beat Function Syllables<sup>27</sup>

### 1. Time-value Names

Time-value Names are used to label the duration of a note within a pattern [for example, chanting *half-note* across a notated half-note]. This is correlational to the use of pitch ladders in use of names as labels [singing or chanting *A* for the note *A*]. The disadvantage of using either system is that the experience is void of all musical context. Although they have little relation to heard rhythm, time-value names are often stressed by music instructors.<sup>28</sup> In fact, most rhythm solfege systems are based directly or indirectly on time-value names.<sup>29</sup> The most widely used time-name applications are the Hungarian and French Time-name systems.<sup>30</sup> In the Hungarian System and its adapted American counterparts, Gordon finds that “random mnemonics are often used for chanting triple meter.” These mnemonics “lack internal logic” when used in conjunction with duple meter and are not applicable to unusual meter at all. The Hungarian System focuses almost entirely on duple meter with the inclusion of triplets that have the moniker *trip-o-let*. Thus, audiation is only possible in duple meter applications.<sup>31</sup>

## 2. French Time-names

The French Time-names System, also known as the Galin-Paris-Chevé System, was theorized in the early 1800s by Pierre Galin in response to trouble his students experienced in reading rhythm notation using time-value names. While John Curwen anglicized the terms, American music educator Lowell Mason adapted the system in the US in the mid-19<sup>th</sup> century” as did Kodály (koodai) years later in Hungary. This approach was so difficult that Mason’s students needed to be well-developed musicians to utilize it.<sup>32</sup> In this particular system, Gordon illustrates, “a quarter note is chanted [in French] *noir*, a half note, *bla-anch* (blä-änch), two 8<sup>th</sup> notes- *cro-che* (crō-ſā) and four sixteenth notes, *double-croche* (döō-blu), regardless of meter or beat function.”<sup>33</sup> The syllable set causes confusion as it crosses meters from duple into triple meter with identical application and, thus, students cannot audiate between the difference between the two.<sup>34</sup>

## 3. McHose/Tibbs

The French Time-name System shares some similarities with the McHose/Tibbs System that emerged in the mid-20<sup>th</sup> century.<sup>35</sup> McHose/Tibbs made no syllable consideration for discerning between usual and unusual meters, or among the various types of unusual meters.<sup>36</sup> Similar to the French Time-names System, different syllables are utilized for enrhythmic meters<sup>37</sup> (see figure 7.6), and, similarly to Galin-Paris-Chevé, McHose/Tibbs treats all unusual meter as mixed meters without considering rhythmicity.<sup>38</sup>

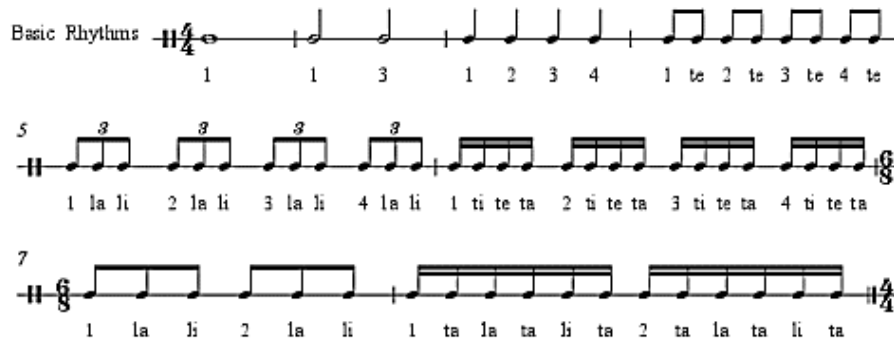


Figure 6.6. Example of McHose/Tibbs rhythm syllable system, from Kevin Blancq, “MR. B'S CLASS SITE.” MR. B'S CLASS SITE. Accessed March 19, 2020. <https://mrblancq.weebly.com/>.

#### 4. Eurhythmics and Mnemonics

Two rhythm syllable systems were designed to include body movement, Eurhythmics and Mnemonics, to comprehend simple rhythms. In Eurhythmics, a word such as *skip-ping* may be associated may be associated with duple meter micro-beats while the word *gal-lop-ing* may be associated with triple meter macro-beats and correlated movement.<sup>39</sup> Of this, Gordon asserts, “These activities are terrific for young children; but they make lousy associational tools. Mainly because there are hundreds of rhythm patterns for which there is no physical action.”<sup>40</sup>

In the Mnemonics System, a word such as *apple* may be used for duple micro-beats while *strawberry* is associated with triple micro-beats. Confusion occurs herein with words such as *elephant* where the emphasis is heard on the macro-beat but the rhythm begins on an upbeat/micro-beat. A mnemonic approach is found within Orff Schulwerk every common words provide the basis for a basic rhythm vocabulary. While different from Time-value Names, neither eurhythmics nor mnemonics contribute to audiation development or complex rhythm comprehension. Further, the Mnemonic System, like Eurhythmics, provides no way to engage complex rhythms including syncopations. Additionally, the words associated do not consistently

match *beat function* within the associated rhythmic patterns. Gordon concludes, “Thus their effect on learning rhythm patterns and meters is limited.”<sup>41</sup>

### 5. *Counting or 1e+a*

Originating in the early 1900s, the 1e+a (w∧n ē ænd a) Counting System has been widely used throughout the United States in instrumental music education.<sup>42</sup> Although it was created to teach simple, duple rhythm patterns, it has gained much more elaborate use in time-keeping.<sup>43</sup> In application 1e+a counting requires *beat division* in every measure so that counting may assure synchronicity. However, “because the same numbers represent macro-beats in some circumstances and micro-beats in others,” Gordon finds, students cannot distinguish the two as they confuse any macro-beat or micro-beat in failing to audiate context.<sup>44</sup> Triple meters are even more confounding as the same numbers used in duple to indicate macro-beats are now used to label micro-beats and, thus, they, too, cannot be audiated correctly in context.<sup>45</sup>

The Counting or 1e+a System appears to adhere to *beat function* but only up to the point where numbers correspond directly to macro beats and the *upbeats* or *ands* (+s as musicians typically write them with music notation) correspond directly to the micro-beats. After these applications, the system is confusing as Gordon believes,

1. Verbalization is a challenge.
2. The same numbers or syllables are utilized for macros and micro beats in both duple and triple meters, causing confusion. [See figures 7.7-7.8]
3. There are no consistent syllables in triple meters.
4. Time is established between two or more notes within a pattern and not within the value of notes, individually.<sup>46</sup>

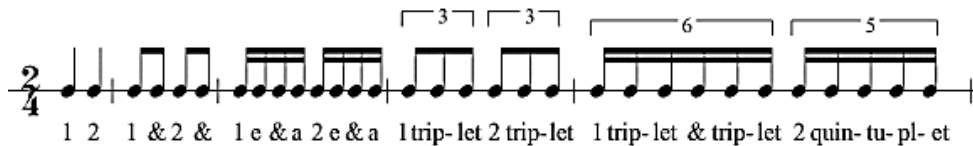


Figure 6.7. Example of 1e+a counting in Usual Duple Meter, from Charles Leinberger, Dominic Dousa, and Bill McMillan. “Everything You Need to Know about The ‘1 E & A’ Counting System .” <http://utminers.utep.edu/>, 2008. <http://utminers.utep.edu/charlesl/Counting1e&a.pdf>.



Figure 6.8. Example of 1e+a counting in Usual Triple Meter, from Leinberger et al, “Everything You Need to Know.”

## 6. Kodály

Although there are different versions of it currently in use, the widely-used Kodály (koodai) Syllable System is similarly challenged, Gordon contends, as syllables are “assigned on the basis of time-value” of notes. The quarter note syllable is *ta* (tä), a pair of eighth notes are *ti* (tē tē), and group of sixteenths is *ti ri ti ri* (tē rē tē rē). He explains, “The trouble with this approach is that the syllables serve notation and not audiation.” Macro-beats are not necessarily quarter or half notes after students develop beyond basic levels of Western music. They could be: eighth notes, whole notes, double whole notes, dotted halves and so on.<sup>47</sup> Simple patterns in duple meter form the rhythm content of the Kodály Method, and, when triple meter is encountered, the same syllables are utilized as they were in duple. The same occurs in usual combined meter or unusual meter either although, occasionally, the word *trip-oh-let*, [a mnemonic of the word *triplet*], is still utilized for groupings of three in duple meter and for groupings of three micro-beats in usual triple meter.<sup>48</sup> The major problem with the aforementioned syllable system is that it is not consistent with how rhythms are actually audiated.<sup>49</sup>

Different syllables are used with macro-beats and micro-beats depending on time-values of notes. Accordingly, a reliable solfege syllable system should be founded on beat function rather than the duration or time value of notes.<sup>50</sup> This presents a significant problem when enrhythmicity occurs such as patterns notated in either  $\frac{3}{4}$  or  $\frac{3}{8}$ .<sup>51</sup> The advantage of Kodály is the consistency of micro-beat division<sup>52</sup> (see figure 7.9). Finally, rhythm-reading appears to be a necessity with this method either as a prerequisite or developed concurrently with this syllable application.<sup>53</sup>

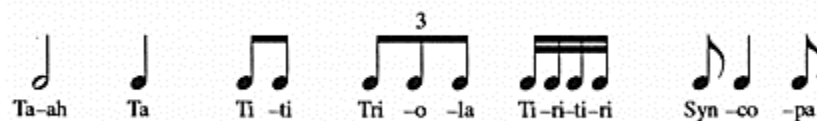


Figure 6.9. Example of Kodály syllable system, from Richard Hoffman, William Pelto, and John W. White. "Takadimi: A beat-oriented system of rhythm pedagogy." *Journal of Music Theory Pedagogy* 10, (1996): 11.

### 7. Takadimi

In the late 1900s, the Takadimi (tak a di mi) System was developed by Richard Hoffman, William Pelto, and John W. White as a “rhythm system for all ages.”<sup>54</sup> Takadimi includes three similar features to Gordon’s Beat Function System.

1. It is based on beat function.
2. It posits different syllables for usual duple and usual triple meters.
3. It supports the concept of enrhythmic measure signatures.

The system also has a serious drawback in that it “distracts students by directing them to count and rename consecutive division syllables.”<sup>55</sup> Gordon posits that the reason Takadimi is so complex is that the authors insist on the necessity of marking attack points or midpoints of the beat in usual meter.



The assertion is the syllable *di* [dē] in both simple and compound meters will coincide when two groups of musicians are performing duple meter and the other triple meter. However that is not the case when both groups are chanting division of micro-beats with, of course, macro-beats in both reoccurring in the same tempo.<sup>56</sup>

Gordon concludes that, “succinctly reality is noncompliant with the theory,” as this anomaly is overlooked in *Takadimi*.<sup>57</sup> Gordon illustrates the system in figure 7.10.

Figure 6.10. Example of Takadimi syllable system, from Richard Hoffman, William Pelto, and John W. White. "Takadimi: A beat-oriented system of rhythm pedagogy." *Journal of Music Theory Pedagogy* 10, (1996): 15.

## 8. Beat Function

Rhythm syllable systems based on beat function have advantages over other systems in that the syllable names are directly related to meter, macro-beats and micro-beats, and rhythm context, itself.<sup>58</sup> The Beat Function System, theorized by Gordon, is centered on the premise that “human beings organize rhythm by pairing beats, rhythm patterns, and phrases.”<sup>59</sup> Unlike inflexible, fixed systems such as Time-value note naming, Beat Function is flexible- based on sounds of actual audiated rhythm patterns as opposed to “theoretical time-value names of individual notes,” according to Gordon.<sup>60</sup> “Syllable names are derived from meter, underlying

macro-beats and micro-beats, and rhythm patterns themselves;” numbers are not utilized. The Beat Function System allows for students to clearly distinguish through audiation, not counting, between macro and micro-beat function since labels are different and successive micro-beats, depending on their position in the rhythmic pattern.<sup>61</sup>

Because of this, students can comprehend the difference of micro-beat function among and within meters. Further, micro-beat duple subdivision features the same syllable use regardless of meter or pattern position.<sup>62</sup> The same syllable is also sustained across elongated macro-beats, micro-beats, or even divisions of micro-beats and musical rests that also represent them.<sup>63</sup> Students have the ability then to audiate the symbols not just make attempts at simple decoding.<sup>64</sup> Finally, the consistent use of the syllable *du* for successive macro-beats strengthens the feel of a steady tempo.<sup>65</sup> Gordon suggests that children utilizing this system audiate and perform macro and micro-beat patterns before proceeding to more complex rhythms.<sup>66</sup> The Beat Function System appears to be the only one based on syntax while all others, Bluestine adds, “are based on phonology, notation, and theory.”<sup>67</sup>

Gordon’s use of rhythm syllables originally had some different considerations when first presented in 1971. Using entirely different terminology, there were elements of numeric counting solfege included. See figures 7.11 – 7.14. Compound rhythms, then as now, had different syllables to avoid confusion (as opposed to using the same solfege set across Duple and Tripe Meters).<sup>68</sup>

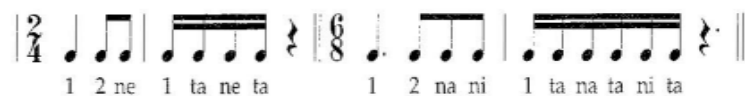


Figure 6.11. Gordon's original rhythm syllables, from Eric Bluestine, *The Ways Children Learn Music: An Introduction and Practical Guide To Music Learning Theory* (Chicago: GIA Publications, 2000), 98.



Figure 6.12. Gordon's original syllable system with triplet solfege, from Bluestine, *The Ways Children Learn Music*, 98.

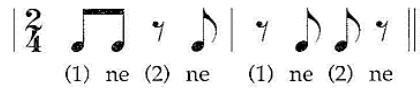


Figure 6.13. Gordon's original syllable system with considerations for rests, from Bluestine, *The Ways Children Learn Music*, 98.



Figure 6.14. Gordon's original syllable system with considerations for elongated rhythm, from Bluestine, *The Ways Children Learn Music*, 98.

In 1976, Gordon added the following considerations for Unusual Meter, as seen in figure 7.16, and credits former student James Froseth and Albert Blaser (both of the University of Michigan) later for the influence in doing so.<sup>69</sup>

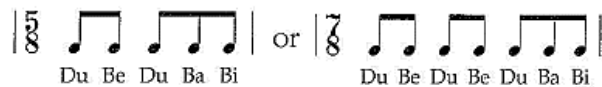


Figure 6.15. Gordon's initial syllable application for Unusual Meter, from Bluestine, *The Ways Children Learn Music*, 98.

In 1980, Gordon made the following alterations to the syllable system as seen in figure 7.16.

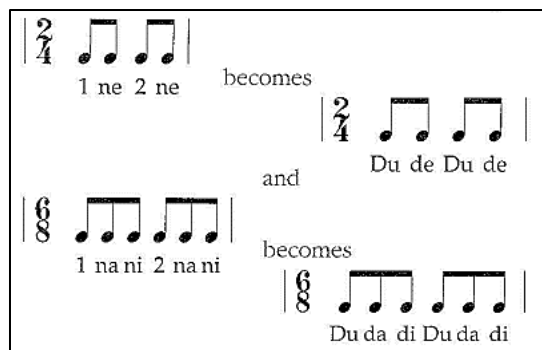


Figure 6.16. Comparison Gordon's original and amended rhythm syllables, from Bluestine, *The Ways Children Learn Music*, 101.

See Gordon's newest syllables applies to four different meters in figure 7.17.



Figure 6.17. Gordon's newer syllables applied to four metric scenarios with triple divisions, from Bluestine, *The Ways Children Learn Music*, 102.

When rhythm syllables are based on beat function, they are logically associated with familiar patterns and students, according to Gordon, are able to “absorb, perform, and think (audiate) music before asked to read or analyze it.”<sup>70</sup> Beat function syllables engender weight and flow, time and space as Gordon contends, “rhythm syllables are a means to an end.” They are needed less and less as student audiation develops. However, syllables remain a part of unconscious thought and they may be deliberately brought forward to solve conscious problems.<sup>71</sup> Further, be it rhythm or tonal syllables, use of solfege leads musicians to developed improvisatory skills.<sup>72</sup> Beat Function Syllables are comparatively exemplified in figure 7.18.








Note values →							
Rhythm system ↓							
Gain-Paris-Cleve	noir-noir-noir-noir	croche	double croche	blanche, blanche	(none indicated)	(none indicated)	(none indicated)
Mason-adapted French Time-Names	ta-ta-ta-ta	ta-ta	te-zé-te-te	ta_2_ta_2_e_	ta_2_2_e_	ta-ta-ta	ta-ta-ta-ta-ta-ta
Current French Time-Names	ta-ta-ta-ta	ta-ta	ta-ta-ta-ta	ta_2_ta_2_e_	ta_2_2_e_	ta-ta-ta	ta-ta-ta-ta-ta-ta
Kodaly	ta-ta-ta-ta	ti-ti	ti-ti-ti-ti	ta_2_ta_2_e_	ta_2_2_e_	tri-o-la	ti-ti-ti-ti-ti-ti
1-c-and-a	1-2-3-4	1-and	1-c-and-a	1_2_3_	1_2_3_	trip-o-let	1-2-3-4-5-6
McLose/Tibbs	1-2-3-4	1-c	1-a-ta-ta	1_2_3_	1_2_3_	1-ta-let	1-ta-ta-ta-2-ta-ta-ta
Frosch	1-2-3-4	1-c	1-a-ta-ta	1_2_3_	1_2_3_	1-ta-ta	1-ta-ta-ta-2-ta-ta-ta
Gordon	du-du-du-du	du-de	du-ta-de-ta	du_du	du	du-be-toi	du-be-toi-du-be-toi
Takadimi	ta-ta-ta-ta	ta-ti	ta-ta-ta-ta	ta_2_ta_2_e_	ta_2_2_e_	ta-ti-ta	ta-ti-ta-ta-ti-ta

Figure 6.18. Comprehensive, comparative rhythm solfege syllable chart, from Tammy Renee Fust, “Table I from Syllable Systems : Four Students' Experiences in Learning Rhythm.: Semantic Scholar.” Table I from Syllable systems : Four Students' Experiences in Learning Rhythm. Semantic Scholar, January 1, 1970.

## Chapter 7 Instrumental Music Education

### Student Readiness

At the onset of instrumental music education, Gordon opines, “most students do not have necessary readiness to learn what teachers are attempting to teach.”<sup>1</sup> This calls into question teaching methods involved in prior instruction. The typical teacher is simultaneously leading students in the decoding of notation and comprehension of technical or executive performance skills but learning both at the same time is inappropriate. As students view and interact with music notation, executive skill development (instrumental fingerings and where to place fingers, push valves, place hands, or find slide positions overtakes instruction). This is a complex task that is too extreme for students. Further many band or strings teachers believe that intonation and rhythmic proficiency skills are acquired from the development of performance technique: breathing, posture, hand position, and embouchure.<sup>2</sup> Gordon concludes that these skills are demanded to the point of abuse when intonation and rhythmic competence are within the domain of audiation development.<sup>3</sup> As such, Gordon relays, “instrument technique, not musicianship, is shortsightedly the dubious central goal in typical instrumental music teaching.”<sup>4</sup> This deprives students of preparation for overall tuning, playing with good intonation, or demonstration of rhythm audiation since students are taught time well before they experience space.<sup>5</sup> These students, “will continually be dependent on others to tell them what, when, and how to tune, and, unfortunately, to count.”<sup>6</sup> The students who excel are those with high musical aptitudes who persist. In this setting it is even more inappropriate to ask students to read music that they cannot audiate. Gordon reasons, “To do so is like trying to teach a student how to read and typewrite unfamiliar words in a language that he or she hardly comprehends. That, too, is musical child abuse.”<sup>7</sup>

Unlike traditional experiences that are inept at preparing students for instrumental music education,<sup>8</sup> an appropriate music education creates groundwork within students that allows for engaging music in a way similar to verbal conversation. Students hear music and can silently understand it. These students, provided instrumental instruction in small groups as opposed to private instruction (which is only beneficial after they have begun audiating), achieve, as Gordon claims, “they possess the wherewithal to excel continuously in audiation growth and will not be impoverished, baffled, or hobbled.” These same students may become musically contributive adults even if they are only members of a football band or church choir.<sup>9</sup>

### Singing And Foot-tapping In The Instrumental Classroom

Gordon confirms that empirical research and experience demonstrate that “singing improves one’s ability to play a music instrument in tune” through audiation.<sup>10</sup> Students must be able to compare what they are playing instrumentally to what they’ve already sung.<sup>11</sup> While younger students are more comfortable with singing than their older counterparts, singing is still a valuable component in establishing context if only employed through unison performance.<sup>12</sup>

Counting numbers and foot-tapping must be abandoned for movement in pursuit of tempo, meter, and accurate rhythm. Students will not perform rhythm any better than they are able to move to it. Poor rhythm performance is directly related to poor audiated rhythm through movement.<sup>13</sup> Again, it is easier to convince younger students to move. However, games and popular music may be utilized to motivate older students.<sup>14</sup>

## Appreciation

Many music educators continue to believe and proliferate the notion that music appreciation is the fundamental goal of music education but this may come at the expense of development of music understanding, Gordon declares, “as if aesthetic education requires no readiness and one does not need to learn how to listen.”<sup>15</sup> He states, “Wherein instrumental technique is the *how*, audiation is the *what* of musicianship.”<sup>16</sup> Young musicians develop an appreciation of music only after they understand it. To do so, Mark and Gary further, “one must experience and learn music as sound, not as metaphors, descriptions, or as analogies to other art forms.”<sup>17</sup> For the educator who comprehends the learning process, “teaching becomes a matter of providing students with what they need to know and are capable of learning, rather than merely presenting opportunities for aesthetic response without the sequential development of music understanding and music learning.”<sup>18</sup> Gordon insists that appreciation and understanding, in essence, differ. Appreciation is simply having emotional responses to music as opposed to giving meaning to music.<sup>19</sup> Audiation is the process for best understanding music as the entire body becomes aware of tonality and meter when experiencing the eight types of audiation.<sup>20</sup> This occurs as the body, through experience, informs the brain. When music is both understood and appreciated, it is understood for its intrinsic elements even if there is a negative emotional response. So, Gordon believes, “the more students understand music, the better they are able to appreciate it.”<sup>21</sup>

## Sound Before Sight

A primary emphasis in instrumental music must be the development of audiation skills... although some educators believe that students who rote-learn (as is the case in the first stage of



audiatonal development, Aural/Oral), never obtain music reading proficiency.<sup>22</sup> These educators may not understand the significance of the rote-learned songs (and their corresponding patterns) in conjunction with the Verbal Association (VA) stage of Music Learning Theory since “audiation is [critically] dependent on A/O and VA experiences . . . ; many problems occur in instrumental instruction because of the common practice of *beginning with the symbols* rather than the sounds and omitting enough aural/oral practice and efficient verbal association of patterns.”<sup>23</sup>

Student competencies become increasingly more complex for teachers to monitor skill level competencies as they develop.<sup>24</sup> So, teachers must be knowledgeable about their student competencies prior to instruction so that learning episodes may be delivered as effectively as possible.<sup>25</sup> Knowledge of students’ tonal aptitudes and rhythm is particularly valuable for teaching to students’ individual music differences. For example, Mark and Madura state, “students who possess high levels of tonal aptitude but who do not demonstrate a high level of tonal achievement can be identified and guided in the learning process to achieve in accordance with their potential.” Likewise, students who may have lower aptitudes may still be instructed but in a way that is not frustrating or overreaching.<sup>26</sup>

### Jump Right In!

Gordon, along with Richard Grunow, co-authored an instrumental music method, *Jump Right In! The Instrumental Series*, in 1981 when, after a series of presentations, Gerhardstein reports, Grunow realized that Music Learning Theory “provided a model for instrumental music instruction that surpassed what he was currently using at that time.”<sup>27</sup> Field-tested through summer workshops, the book features examples of a

number of executive skills (including embouchure and posture), but did not initially include music notation. After industry rejection and subsequent revisions, the series was re-published in 1989-90 featuring specific instrument books along with soloist editions with accompaniment recordings.<sup>28</sup> Throughout the series, pattern instruction is coordinated with instrumental lessons that require students “to sing, move, and play each of the patterns” as part of each lesson.<sup>29</sup>

### Implementation

Norman observes Music Learning Theory instruction “is fundamentally different than more traditional approaches” that focus on “music notation and individual notes, rhythms and fingerings” and rarely include content, movement and singing.<sup>30</sup> Its implementation within instrumental music instruction is, however, entirely appropriate as long as its methodical use, Shuler points out, “provides the [educator] with the means to improve his students' performance skills while broadening their music understanding.”<sup>31</sup> Burton provides a framework of considerations for teachers implementing Music Learning Theory:

1. To whom is the instruction geared?
2. What are the musical backgrounds of the students?
3. How will the curriculum be structured for the entire music program?
4. What musical content will be presented in addition to the content found in Learning Sequence Activities?
5. What teaching strategies or techniques will be used?
6. How will the class periods [instructional episodes] be structured?
7. How will student-learning be measured and evaluated?
8. What resources are needed?<sup>32</sup>

Burton also purports that music educators with little Music Learning Theory preparation found its use worthwhile but would not implement the theory while those with robust training had the confidence to do so.<sup>33</sup> Some teachers feel hesitant to incorporate Music Learning Theory not

because they are lacking in musicianship and pedagogy but because they simply can't determine how or where to begin or, as Grunow states, they are "entrenched in comfortable routines" that are similar to fifty-year-old teaching models whose goals were only to quickly reach performance.<sup>34</sup> These common instructional models "contradict how students actually learn"<sup>35</sup> in that "students do not learn to read, or improve their reading, by attempting to read music that they cannot comprehend." Grunow adds, "[This] practice of reading music notation through the immediate introduction of individual notes in combination with music theory and instrument fingerings does not lead to reading with comprehension."<sup>36</sup> Lastly, many directors' main focus in music education is its use as a means of competing.<sup>37</sup>

The question then is to determine how a teacher may begin implementing Music Learning Theory into the curriculum. Levinowitz suggests first initiating informal music activities for a lengthy period of time. The more numerous and varied these informal activities, the more they will benefit the students.<sup>38</sup> Informal music can occur at several times during a regular class period: entering the room, leaving, relaxing, and during coordination and movement activities.<sup>39</sup> Levinowitz also reveals that "once the majority of the students are singing rote songs in tune and are moving to the *micro* and *macro-beats* of music with a consistent tempo, the teacher should start formal tonal and rhythm pattern instruction."<sup>40</sup>

### *Pedagogical Concerns*

It appears that many teachers may teach the way they, themselves, were taught- not as they are trained to teach.<sup>41</sup> They are not compelled to include various aspects of instruction but only to allocate time toward preparation for performance when even a few moments of regular pattern instruction would improve the performance quality of their ensembles.<sup>42</sup> In this regard, Gordon

extorts, “Education becomes an impediment to maintaining a performance schedule.”<sup>43</sup> At the onset of instruction, some difficulties arise simply because the educators are not literate or comfortable outside of major and/or some minor tonalities and unusual meters. “Informed students want to sing rote songs and improvise, for example, in Dorian and Mixolydian tonalities. Unapprised teachers tell them they are singing wrong notes or skipping beats.”<sup>44</sup> Students in this setting become too dependent on the music director due to the recurrence of rote instruction.<sup>45</sup>

### *Requisite Skills*

Norman observes that teachers must possess the musical skills and content that they hope to develop in their students.<sup>46</sup> The requisite Music Learning Theory teaching skills require the instructor to be able to:

1. Sing in a variety of tonalities and meters
2. Chant in a variety of meters
3. Engage in Laban-based movement
4. Use rhythm and tonal syllables
5. Create and improvise music
6. Develop readiness and skills for music literacy<sup>47</sup>

Some music instructors may turn away from incorporating Music Learning Theory because they believe they personally lack necessary musical skills including a developed ability to rhythmically and/or tonally sing parts of musical scores utilizing appropriate solfege. Ultimately, Burton claims, "Success in implementing Music Learning Theory is influenced by the level of a music educator's personal musicianship."<sup>48</sup> Music Learning Theory-adherent teachers are regularly positioned to demonstrate primary instruments (a clarinet or violin, for example) even if their performance skills may have diminished since graduating from schools of music and entering the teaching profession. Burton reasons that “through the implementation process, the music educator's own professional understanding of the developmental and sequential nature of

music learning grows"<sup>49</sup> adding that, "for successful implementation to occur, music educators should have a solid knowledgebase of Music Learning Theory content, sequence, and pedagogy," including the following:

1. An understanding of audiation, music aptitude, the application of music aptitude testing, and the sequential progression of musical development
2. An understanding of the role of singing, chanting, moving, performing, improvising, and creating in the development of audiatational skill and musicianship
3. An understanding of the unique teaching strategies associated with Music Learning Theory
4. An understanding of the measurement and evaluation of student learning at different skill levels
5. An understanding of how to apply Music Learning Theory in a variety of contexts, such as early childhood music, general music, instrumental music, piano instruction, choral music, and higher education<sup>50</sup>

### Teaching Sequence

Gordon states that "*when* is even more important . . . than *what*,"<sup>51</sup> thus reiterating the importance of the teaching sequence. Conway furthers this notion by claiming that "students cannot learn to read what they have not moved to, responded to, sung to, improvised to, and audiated."<sup>52</sup> A typical sequence mistake made by music educators is to teach students to read notation when they cannot yet audiate.<sup>53</sup> Music Learning Theory emphasizes the learning of songs aurally prior to reading music.<sup>54</sup> Richardson explains, "They (students) are never expected to read a tonal or rhythmic construct they haven't experienced first through listening and then through changing, singing, and finally, performing in melodic or rhythmic isolation- that is."<sup>55</sup> A separate sequence mistake is the undertaking of executive (technical) skills while audiation building or pattern recognition is occurring. Conway notes that these should be considered separately and increasingly as students advance.<sup>56</sup> Yet another sequence mistake occurs when the teacher approaches the learning sequence with only the average student in mind.<sup>57</sup>

### *The Schuler model*

Schuler specifies a model through which Music Learning Theory may be integrated into the instrumental music curriculum: it may be introduced outside of the group rehearsal via extra personal and/or sectional work but may also certainly become a part of the ensemble warm-up portion proper where it "fosters careful listening and the development of music understanding, while still allowing students to warm-up physically." The challenge for any instrumental music ensemble is that a variety of approaches may be necessary to reach the different levels present among members.<sup>58</sup> Some of the development such as that which occurs at Aural/Oral, Verbal Association, or Partial Synthesis skill stages "may often be completed while the students quietly assemble their instruments, thus making optimal use of rehearsal time."<sup>59</sup> This may be followed with a variety of tonal or rhythmic echoing on individual instruments where the teacher first establishes meter and tempo (rhythmic), and tonality and keyality (tonal), resting tone, and then, finally, modeling with appropriate musical responses from students: singing, echoing with appropriate solfege syllables, and echoing with solfege while demonstrating correct fingerings on each instrument.<sup>60</sup> Learning and playing songs and their root melodies in a variety of tonalities and meters is also appropriate at the start of instruction for older students who may enjoy this challenge.<sup>61</sup>

### *Expounding on the Shuler model*

It is almost a given that early to mid-grades instrumentalists will use some type of method book especially during rehearsal warm-ups. Norman states that any instrumental method book may be used for instruction so long as the Music Learning Theory sequence is followed “so that students learn to audiate tonality and meter.”<sup>62</sup> Stamou adds, “Only after children have sung, chanted, or moved should their performance vocabulary be transferred to an instrument.”<sup>63</sup>

Educators also have several more options for moving through the Music Learning Theory teaching sequence. For example, once students have attained the Partial Synthesis level of Music Learning Theory using any set of patterns that comprise part of the performance vocabulary, the director may have them echo the patterns on their instruments. For rhythm patterns, the director must first establish the meter and tempo; for tonal patterns, the director must first establish the tonality and the keyality. The director must also identify the concert pitch of the resting tone or, if the musicians have not learned to transpose, the resting tone for each instrument pitch group. The director should then perform each pattern exactly as he wishes the student to and the students should respond by playing the patterns on their instruments either corporately or individually. Shuler reveals that this modeling strategy allows the instructor to draw students’ attention to “appropriate tone quality, phrasing, dynamics, and style” since students will focus on what they hear and not what they see (written notation). An additional strategy is to have students complete this daily section with their eyes closed. As a means of addressing lower stages in the Music Learning Theory sequence such as Aural/Oral or Verbal Association, the conductor-teacher may “take one set of [tonal and/or rhythmic] patterns through several levels in a single rehearsal or learning episode” but this is not generally effective and does not lead to mastery.<sup>64</sup>

A different, perhaps more-effective, approach utilizes various pattern sets at different Music Learning Theory levels throughout the class warm-up portion (as opposed to taking one pattern set through the different levels) where all students would first engage new patterns at a lower-skill level such as Symbolic Association before reviewing better-known patterns at a more advanced stage such as Composite Synthesis.<sup>65</sup> Schuler states that this approach is better because "it provides variety and a physical warm-up during learning sequence activities while still providing students with the repetition of content over a period of days that is necessary for enduring mastery of each set of patterns." A selection of greater and lesser known patterns may be utilized at different levels across several learning episodes.<sup>66</sup> Subsequently, the teacher will have students notate the patterns in order to measure comprehension. Sequencing instruction this way allows for some content to become prerequisite for other content; this is the foundation of Music Learning Theory.<sup>67</sup>

A third approach, Shuler states, is a compromise between the first two whereby the director may "alternate learning sequence warm-ups with more traditional warm-ups in full rehearsals" on alternating days. Schuler recommends Music Learning Theory sequence activities at least twice weekly but preferably three times.<sup>68</sup> Of course, the director may choose to glean [tonal and rhythmic] music patterns from actual performance literature.<sup>69</sup> In this case, the instructional patterns utilized should be closely aligned and ultimately lead to individual mastery of the most difficult sections.<sup>70</sup> Stamou maintains that learning fingerings would then be easier since the children already audiate the music. "Children [would] know how a musical work should sound, because they already have developed musical ownership of that work through performance." They will adjust their own performing to match what is already known.<sup>71</sup>



## Music Learning Theory In Large Ensembles

Educators instructing large ensembles that play well beyond their actual literacy levels may decide to choose new music with less unfamiliar patterns that are achievable in shorter time frames. Ideally, these teachers should plan far enough ahead to achieve competencies in the musical vocabulary of the selected performance literature. For example, a teacher planning a modal work may begin introductory exercises and experiences in the prior year by having students listen in a variety of ways to, for example, Dorian mode. As they enter the room and assemble, through singing the scale or songs in Dorian, and in experiencing tonal patterns. This same introductory process is also useful with rhythmic content.<sup>72</sup> If a director wants to teach an unusual meter, he should prepare the students well in advance by listening to the meter, singing simple, rote-learned songs in that meter followed by a deliberate building of pattern vocabulary also in that meter.<sup>73</sup> Teachers who do not prepare students for particular performances are “fated to spend a great deal of rehearsal time correcting” performance problems, Shuler indicates, as students “try to fit the music into the more familiar” tonal and/or rhythm patterns they already know. Students who have experienced learning sequence readiness activities can “hear what they play before they play it, and therefore . . . shape their music appropriately.”<sup>74</sup>

## Chapter 8 Curriculum & Improvisation

Gordon has decisively posited within the realm of music curriculum purporting that education's role is to draw out student learning through teaching aimed at individual capability.<sup>1</sup> Gordon holds that central to an effective curriculum is sequential learning with methods for determining how goals will be met.<sup>2</sup> This is most effectively accomplished when teachers understand how students learn music. Gordon expounds that this knowledge "is more important than being well informed about various methods of teaching."<sup>3</sup> To adequately meet student needs, the Music Learning Theory skills sequence must be effectively coordinated with classroom music and performance opportunities.<sup>4</sup> Through the sequence, various approaches may be derived for instruction although educators may simply follow a narrow path from the Aural/Oral Stage of instruction through Theoretical Understanding (although this is *not* recommended).<sup>5</sup> "Music Learning Theory is a rationalistic, philosophical view" that forms a foundation with regard to sound before sight (before theory, tonality, and symmetry)<sup>6</sup> based on audiation (see figure 9.1). Both the word and its perception as a philosophy are gaining more recognition and gravitas in their inclusion in music curricula and classroom instruction throughout the world.<sup>7</sup>

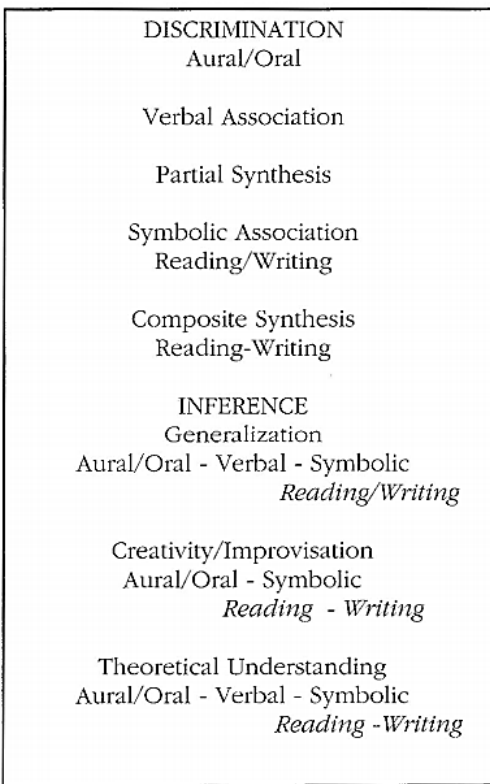


Figure 8.1. Music Learning Theory skill learning sequence, from Richard F. Grunow, "The Evolution of Rhythm Syllables in Gordon's Music Learning Theory." *The Quarterly Journal of Music Teaching and Learning* 3, no. 4 (1992): 103.

Gordon contends that, in subjects such as science and math, there are well-established learning sequences to ensure student success. This appears not to be the case in music education especially with the philosophical conflict of what should be the most important facet: listening or performance. Attention to audiation development appears to be altogether dismissed thus the foci is on other facts altogether extra-curricular.<sup>8</sup> It was because of this that Gordon conceived Music Learning Theory to establish what is taught as well as when and why.<sup>9</sup> Citing that there is no widespread method of teaching music and teachers are thus dependent on rare curriculum guides, published collections of literature and teaching techniques, Gordon asserts, "Their learning how to construct a viable sequential music curriculum is indispensable."<sup>10</sup> Since "performance is best supported by a sequential learning music curriculum," instructors must be all about proficiency in

the sameness and difference in imitative, memorization, and auditory skills.<sup>11</sup> Teachers must base their curricula on audiation otherwise the instructional framework will be faulty.<sup>12</sup> Further, they must conceive that each level or stage serves as readiness for more complex skills and knowledge.<sup>13</sup> Educators must learn to distinguish between musical behaviors and those that are music-related since musical behaviors are rooted in audiation. Those behaviors that are music-related include identifying clefs and keys and time-value naming. Both behaviors are relevant to the overall curriculum but emphasis must be placed on the former much more than the latter since music-related behaviors only exist to communicate about the music.<sup>14</sup> Azzara states that music educators may find their roles entirely consumed by classroom discipline “yet with the understanding of [Music Learning Theory], teachers know what to teach, when to teach it, and why it is taught.” Without such guidance, teachers may misunderstand the learning process confusing their teaching with simple exposure that leaves students to learn on their own.<sup>15</sup>

### The Three Tiers of Public School Instruction

Gordon asserts that public school music instruction includes three tiers: entertainment, experience, and education. The least of these is entertainment most prevalent in early grades where a positive experience is the main objective. Knowledge is solidified through high school depending on the recollection of activities in earlier grades.<sup>16</sup> Next, experience occurs as elective music begins in middle grades. Instrumental music begins and students become more familiar through experiences with music that others, outside the music groups, do not have.<sup>17</sup> With the third focus of public school music instruction, education, students learn to perform music as opposed to simply learning about it. An element of responsibility establishes itself when the inner workings of music become known. Audiation of musical elements not evident in notation

occurs in performance. Improvisatory skill is the hallmark of education illuminating those who have been entertained against those who have experienced music instruction. Those students who have high aptitudes may not necessarily have improvisatory skill but “are not habitually dependent on imitation, memorization, or notation to participate in music activities.”<sup>18</sup> By default and in attempts to overcome musical inefficacy, teachers choose self-made methods of music literature to utilize as well as self-collected remedial activities and etudes to be performed.<sup>19</sup> Gordon states that this, “is woefully insufficient for guiding students in acquiring an understanding of music.”<sup>20</sup>

Gordon's guidelines for an effective music curriculum may be seen in figure 9.2.



Figure 8.2. Gordon's detailed curriculum guide, from Edwin Gordon, *Possible Impossibilities in Undergraduate Music Education* (Chicago: GIA Publications, 2010), 120-121.

### Elements of a Curriculum

The purpose of a curriculum is simply an explanation of why the particular music course is taught and what the expected, average music achievement of the class will be. Comprehensive objectives of the course specify the unit of music achievement that may be sequentially obtained in a unit, marking period, semester, or year.<sup>21</sup> Comprehensive objectives may be divided into music, executive, literature, and technical. Music implies understanding of tonal or rhythm

patterns, tonality, keyality, and meter. Executive relates to technical aspects of music performance. Literature is a listing of the music to be performed. Technical refers to timbres, [instrument manipulation], music theory, and music history that are later, eventual objectives after the development of student audiation in performance and listening.<sup>22</sup>

Specific sequential objectives involve two elements, method and technique, that move stepwise, thus bridging skill, tonal and rhythm content, and meter along the learning sequence toward a comprehensive objective.<sup>23</sup>

There may be many methods and the techniques could include tonal and rhythm solfege, note names, tonal echo experiences, and/or movement activities.<sup>24</sup> The importance of technique cannot be overstated as poor teaching techniques prevent student learning and obstruct objectives in the curriculum.<sup>25</sup>

### *Measurement*

In order to know the individual differences of each student, teachers may choose to employ valid aptitude batteries in addition to their own active research results in adapting instruction.<sup>26</sup> Measurement of achievement may be done through standardized testing or teacher-made constructs. Evaluation is completed through continuous and summary forms by analyzing achievement throughout the semester (continuous) or at the end of the academic year (summary).<sup>27</sup> Grading then is normative and idiographic. Normative indicates evaluation against other classmates. Idiographic grading references students against their own past achievement.<sup>28</sup> The ultimate goal of assessment is not student-to-student comparison but rather improvement of instruction.<sup>29</sup>

## Curriculum Development

Curriculum development is the least addressed element in pre-service education. Both measurement and evaluation are nefariously absent. Gordon speculates that this occurs “because musicians claim music is a subjective art and therefore [it] cannot be measured.” The real reason may be the misunderstanding and unfamiliarity with assessment and its use in the classroom. Understanding assessment is crucial to curriculum development. “Without foreknowledge of both measurement and evaluation, timing students, moves to different levels of skill, tonal, and rhythm learning and many other instructional aspects becomes a matter of guesswork.” A profound problem in music education is that many rarely assess learning but they constantly evaluate it. These subjective results are then use to evaluate their own teaching efficacy.<sup>30</sup> Testing endeavors only measure a sample of teaching and without sequential and comprehensive objectives, it will have limited importance. Assessments that most accurately detail learning of specific objectives are teacher-written; more than one test will be needed to measure objectives.<sup>31</sup> There are other measures of assessment [i.e. peer and self-constructs] that are not tests.<sup>32</sup>

College teacher training courses are also of concern where, Gordon contends, “typical methods courses are concerned primarily with techniques and materials, and to a much lesser extent with isolated objectives, haphazardly sequential and incomplete series of objectives;” the emphasis has been more on how teaching occurs as opposed to how learning happens.”<sup>33</sup> Gordon concludes, “Music education methodologies are religious. There are no churches, just canons;” music methods courses should be exchanged for observation of multiple teachers in action.<sup>34</sup>



## Jump Right In! The Music Curriculum

*Jump Right In! The Music Curriculum* is a 1986 classroom music resource developed by Gordon and collaborator David G. Woods. Taking several years to develop as folk songs were researched and then intricately linked to the Music Learning Theory framework, the original series featured two teacher songbooks, no teaching edition or accompaniment resources, and a student take-home workbook.<sup>35</sup> The second edition published in 1999-2000, Gerhardstein reveals, feature “hardbound student books, compact disk recordings of the songs in the series, piano accompaniments, and a teacher's edition for each grade.” Lessons focus on development audiation correlated with skill learning sequence activities incorporating songs from around the world.<sup>36</sup> Tonality and meter are expanded in the second edition with presentation and accompaniment providing more appeal in presentation and concept.<sup>37</sup>

Gordon contends that because “a sequential curriculum is bedrock in pursuit of excellence in education,” the purpose of the development and delivery of music learning sequences must be to teach students to read and perform music . . . [and] to play by ear and improvise as important extensions of an essential student skill set.<sup>38</sup>

## Improvisation

A primary interest established during his time as a big band jazz musician, improvisation was ostensibly linked by Gordon through audiation as the underpinning of Music Learning Theory and its related fields.<sup>39</sup> Tied explicitly to conversational speech, momentary thought precedes musical communication or performance that is, for all purposes, improvised.<sup>40</sup> The

importance of motion in space as audiated rhythm is also integral to improvisatory musical activity.<sup>41</sup>

While it is a part of the skill learning sequence on a continuum within the Creativity/Improvisation Stage of Inference Level learning, Improvisation is a necessary *overall aspect of music education* that was examined expansively by Gordon who contends the more improvisatory experiences students enjoy, the more profound listening, music reading, interpretation, and expressive performance occur.<sup>42</sup> At a certain time in the not-so-distant past, every student had a vocabulary of folk tunes [such as *Polly, Wolly, Doodle* and *My Bonnie Lies Over the Ocean*] with which to share through improvisation. Now, instructors must provide these sources for instruction.<sup>43</sup> Gordon articulates, “Improvisation is the essence, the sum and substance of music,” because every single person who listens to any music brings her own cultural history to the experience, sharing that area that shaped his or her own life. Students also bring to fore their own competencies in music, aptitudes, or potentials for music achievement. These interactions make it such that no two persons experience a piece of music in the same manner.<sup>44</sup> Improvisation extends well beyond listening to reading music instrumentally or vocally. As it is experienced, music notation is imperfect in that most elements of music cannot be effectively printed as symbols on a page and then relayed to the reader.<sup>45</sup> As noted earlier, two conductors will audiate the same musical composition in performance and improvise throughout attempting to relay the message of the music.<sup>46</sup>

### Improvisational Readiness

Although children are born with certain dispositions and aptitudes toward music, those aptitudes may change in response to the music environment, formal and informal, that surround

the children up to the approximate age of nine. Gordon opines, “Thus, neither nature nor nurture are responsible for the child’s level of music aptitude.” Music achievement does occur after age nine but only 10 percent of potential is ever utilized.<sup>47</sup> Sequential learning is the cornerstone of music education and occurs at the discretion of music educators who plan instruction to meet student needs. If students lack readiness of the instruction, it can be arduous. However, readiness as Gordon affirms, “is presupposed and assured when learning is sequential.” Still, everything that is learned cannot be taught through applied instruction. Students can only be guided in the learning process. “Teaching takes place outside of the student while learning takes place inside the student.” Thus, improvisation cannot be specifically taught; the student must learn how to improvise. This occurs when educators prepare the students to learn, assisting in developing the readiness. Just as familiarity with the context and the retention of words constitute readiness for questioning and responding to questions, improvisation will occur when musical content and context are expressed as readiness through audiation. Improvisation, then, is a human trait, as it occurs in every place of human cognition.<sup>48</sup>

Gordon reveals that improvisation occurs in three ways:

First, one may perform a variation of a melody without giving attention to the underlying existent or implied harmony. . . Second, musicians may perform a melody over a series of harmonic patterns, otherwise called harmonic pattern progression. In the vernacular, they are referred to simply as the changes. . . Third, musicians may improvise harmonic patterns to an old or new melody. The first method requires memorization and imitation. Knowledge of music theory and knowing to read music notation are helpful, if not necessary. The second and third methods require audiation.<sup>49</sup>

In his 2003 text, *Improvisation in the Music Classroom*, Gordon identifies processes and content that represents, for the greatest part, actual student examples in a wide range of tonal, rhythm, melodic and harmonic patterns and sequences gathered through his extensive research.<sup>50</sup> His purpose in doing in so was such that students, particularly outside the jazz idiom dedicated to

the development of improvisation, could develop their own improvisatory skills through teacher-led sequences of tonal and rhythmic activities. Thereby, those students could “learn to listen to music, read music notation, interpret music, and perform music expressively.”<sup>51</sup>

### Process for Improvisation

Gordon developed sequential processes for rhythm, tonal, melodic, and harmonic improvisation whereby the entire body is engaged in the progression with free-flowing, comfortable movement establishing context through macro-beats perhaps with wrist-movement occurring first.<sup>52</sup> Beginning in figure 9.3 is a Usual Duple rhythm pattern example.

1. The teacher performs one or more chants in usual duple meter (see figure 11.1), using neutral syllables such as *bah*, that incorporate repetition, sequence, and silence.



Figure 8.3. Example of Usual Duple Meter teacher-led chant, from Edwin Gordon, *Improvisation in the Music Classroom: Sequential Learning* (London: Boydell & Brewer, 2003), 23.

2. Maintaining a consistent tempo, all students move in a comfortable, flowing manner to macro-beats. Next move to micro-beats. Then after group division, move to one or the other. Movement provides the rhythmic context *not* background music.
3. Students imitate the teacher by chanting rhythm patterns with four underlying macro-beats using neutral syllables as they are moving in a comfortable, flowing manner to macro-beats and micro-beats. Next, students imitate the teacher by chanting the rhythm patterns using rhythm syllables such as *du-de*.<sup>53</sup> See figure 9.4.



Figure 8.4. Example of Usual Duple Meter rhythm patterns, from Gordon, *Improvisation*, 24.

4. Individual students using neutral syllables take turns improvising rhythm patterns as the class continues to move and chant macro-beats and micro-beats. The patterns, including only macro-beats and micro-beats, should be no longer or shorter than four underlying macro-beats. Next, individual students using rhythm syllables, take turns improvising and rhythm patterns as the class continues to move and chant macro-beats and micro-beats.<sup>54</sup> See examples in figure 9.5.



8.5. Student macro/micro-beat improvisations with solfege, from Gordon, *Improvisation*, 25.

5. Individual students, using neutral syllables, take turns improvising rhythm patterns (see examples in figure 9.6) as the class continues to move and chant macro-beats and micro-beats. The patterns, now expanded to include macro-beats, micro-beats, divisions, elongations, and/or rests should be longer or shorter than four underlying macro-beats. Next, individual students, using rhythm, syllables, take turns improvising the rhythm patterns as the class continues to move and chant macro-beats and micro-beats.



Figure 8.6. Student improvisations incorporating ties, elongations, rests with solfege, from Gordon, *Improvisation*, 25.

- Individual students, using neutral syllables, take turns improvising rhythm patterns as the class continues to move and chant macro-beats and micro-beats. The patterns, including macro-beats, micro-beats, divisions, elongations and/or rests are now no longer than eight underlying macro-beats. Next, individual students using rhythm syllables take turns improvising the rhythm patterns as the class continues to move and chant macro-beats and micro-beats.<sup>55</sup> See examples in figure 9.7.



Figure 8.7. Examples of student-improvised patterns extended to eight beats, from Gordon, *Improvisation*, 26.

Gordon extended this improvisational process to also include detailed examples for Usual Triple Meter, and Usual Combined Meter<sup>56</sup> (pp. 26-32 in *Improvisation in the Music Classroom*).

## Process for Tonal Improvisation

As noted earlier in Chapter 7, Tonal and Rhythm Solfege, Gordon suggests that only one tonal system is suited for the purposes of music reading skills and improvisation: *do* major with a *la*-based minor. The crucial patterns in major and harmonic minor tonalities include tonic, dominant, and subdominant. “Except for *so* to and from *fa* in the dominant seventh patterns, stepwise movement is not used.” Tonic pattern syllables are *do-mi-so* with dominant-seventh pattern, *so-ti-re-fa*, and subdominant pattern consisting of *fa-la-do*. Where harmonic minor is concerned, tonic syllables include *la-do-mi*, dominant-seventh syllables are *mi-si-ti-re*, and subdominant comprised of *re-fa-la*. Tonal patterns consist of two, but usually three, and never more than four pitches. The order or inversion of the tones does not matter.<sup>57</sup> Arpeggiated patterns provide the greatest readiness for students as opposed to instruction based on more scalar, stepwise patterns.<sup>58</sup> Structure for imitating and improvising in the music environment is provided by the establishment of tonality along with relaxed, flowing movement.<sup>59</sup>

Gordon identifies primary tonal patterns in Major and Harmonic Minor Tonality. See figure 9.8.

The figure displays two musical staves in treble clef. The top staff is for Major tonality, with a key signature of one sharp (F#). It is divided into three sections: 'Tonic' (Do, Mi, So), 'Dominant Seventh' (Ti, Re, Fa, So), and 'Subdominant' (Do, Fa, La). The bottom staff is for Harmonic Minor tonality, with a key signature of one flat (Bb). It is also divided into three sections: 'Tonic' (La, Do, Mi), 'Dominant Seventh' (Si, Ti, Re, Mi), and 'Subdominant' (La, Re, Fa). The notes are represented by black dots on the staff lines.

Figure 8.8. Tonal patterns in Major and Harmonic Minor modes, from Gordon, *Improvisation*, 34.

Gordon also provides for improvisation on the foundational twelve-bar blues in figure 9.9.

The image displays two staves of musical notation for a twelve-bar blues progression in 4/4 time. Each staff begins with a treble clef and a 4/4 time signature. The first staff contains nine bars with the following chord symbols above them: I, IV, I, IV, I, V7, I, IV, I. The second staff contains twelve bars with the following chord symbols above them: I, IV, I, I7, IV, IVm, I, VI7, IIIm7, V7, I, IV, I. Each bar contains a diamond symbol on a treble clef staff.

Figure 8.9. Twelve bar blues progression, from Gordon, *Improvisation*, 110.



## Chapter 9 Criticism

Initial criticism of Music Learning Theory was in the form of opposition to Gordon's rhythm terminology that differed from traditional, historically-used wording.<sup>1</sup> Accordingly Brink criticized Gordon's use of the rhythmic term *meter beat* since the term, meter, had traditionally been used to describe groupings of beats into larger units of 2 or 3 (Gordon later revised the term).<sup>2</sup> Gordon also originally used the term *tempo beat*- the reverse of traditional teaching, as well.<sup>3</sup> Brink, along with Colwell and Abrahams, then challenged Gordon's assertion that macro-beats occur in pairs.<sup>4</sup> However, Gordon's explanation is consistent with "Leonard Bernstein's mention of rhythmic and melodic symmetry as a universal concept in music."<sup>5</sup> Colwell and Abrahams also take issue with Gordon's notion that music and language acquisition are similar in process. Instead, they echo the position of music philosopher Bennett Reimer in that the exchange between musicians is not actual communication but rather a form of sharing.<sup>6</sup>

Additionally, Richard Colwell of the University of Michigan calls Gordon, "a behaviorist, implying that [Gordon] denies the importance, possibly the existence, of affective, emotional responses to music."<sup>7</sup> Bluestine contends, in his response to this critique, that Colwell is distinguishing between music philosophy and music psychology retaining the first, more prominent, designation for himself and the second, lesser one, for Gordon and his work. It seems that Colwell purports that Gordon, as a music psychologist, is unable to determine what students should learn and that advocates to Music Learning Theory are unable as well.<sup>8</sup>

Miklaszewski, in his review of *Learning Sequences in Music; Skill Content, and Patterns* (1984 edition), disagrees with Gordon's separation of tonal and rhythmic content in learning sequencing questioning how each content may be subsequently combined after having initially been taught separately.<sup>9</sup>

Indeed, Gordon's ideas were deemed controversial at times.<sup>11</sup> For example, a terrific debate continues, "among philosophers of music education, about whether the main focus of music education should be on listening (aural) or on performance (oral)."<sup>12</sup> Bennett Reimer (1932-2013), afore-mentioned music philosopher of Northwestern University,<sup>13</sup> took particular issue with Music Learning Theory stating that, "music tasks had been atomized, partitioned, and decontextualized without any opportunity for embellishment or improvisation other than the speed of progression." Bluestine responded that, indeed, Music Learning Theory skills are individually, particularly taught and reinforced but Reimer's accusation of rigidity regarding progression content is simply inaccurate.<sup>14</sup> Bluestine adds, that Reimer, himself, "avoids tonality, meter, form, counterpoint, harmony, timbre, texture, tempo, melody, or style. . . . rather than discussing these topics, Reimer focuses on the vague notion that music education should be the education of feeling."<sup>15</sup> When setting out to teach the feeling of music, teachers often place their own emotions and opinions on the students. Instead of heightening their sensitivity to music, they further an emotional agenda.<sup>16</sup> In support of Music Learning Theory, Bluestine continues in his challenge to Reimer in three areas: that educating students in the task of feeling music is "impossible, unnecessary, and unethical." He further contends that "we can name emotions; we cannot name feelings. . . . Every bit of musical content we teach has a name; and every skill has a name. In fact, every time we try to teach anything directly, we cannot help but name it. Teaching and naming go together."<sup>17</sup>

Stokes also faults Gordon for relegating musically aesthetic experiences as by-products of Music Learning Theory. Gordon responds that students should aesthetically engage the learning sequence. Stokes, however, holds that aesthetics should be a curricular consideration

when developing learning sequences for instruction.<sup>18</sup> The contention that Music Learning Theory leads to a lack of musicality is not a criticism of it but rather of those who support it.<sup>19</sup>

High school music ensemble directors complain that Music Learning Theory instruction does not include *music notation theory* nor utilize it in preparing students to play. Students enter the classroom without the ability to describe note names, lines or spaces, or note lengths. “That students were well versed in tonal and rhythm syllables and could use them to read music notation fluently was ignored,” Gordon states. It would seem that this occurred because those teachers were not entirely familiar with tonal solfege and did not know how to use rhythm syllables at all.<sup>22</sup> Gordon concedes that the lack of familiarity or understanding of his research is due to the fact that it is non-traditional with regard to typical classroom music instruction. His research was influenced by many indirect findings where the results of data that was not the direct interaction studied. Further, necessary research did not “always fit into the conventional mold established by the academicians in positions of authority.”<sup>23</sup> Gordon believes that his work was several decades ahead of its time and that there still is a discomfort with Music Learning Theory. He maintains that,

To accept its concepts requires time and change, and most teachers and humans in general do not embrace change easily. Specifically, to shift the emphasis in music education from promoting the teaching process to understanding the learning process required courage and risk.<sup>24</sup>

This is because the goal of learning is much more important than the process of teaching.<sup>25</sup>

Byrd notes that educators may not be prepared for the paradigm shift that Gordon purports through Music Learning Theory as traditional teaching models are diametric in praxis.<sup>26</sup> Byrd believes that Gordon proponents must persuade those in the music education profession that Music Learning Theory is well-constructed, sufficiently researched, and effective.<sup>27</sup>

Woodford (1996) concluded that Music Learning Theory “is not so much a learning theory as it is a taxonomy of musical preconditions for critical thinking.” He argues that, because Music Learning Theory does not expressly take into consideration the personal and social factors affecting individual musical learning (beliefs, needs, desires), it “fails to explain how and why children should exert control over their own musical thinking and learning” or “why children should learn to think for themselves.” Gordon holds that “it is success . . . that is the ultimate motivation . . . ; students are motivated to learn when they are successful at what they are doing.”<sup>31</sup> Woodford concedes that “critical thinking instruction in music is less about teaching musical skills and abilities along the lines of what Gordon proposes than it is about developing in students what is sometimes referred to as the critical spirit or a disposition to develop their musical individuality.”<sup>32</sup> Gordon responds to Woodford’s criticism that the reason that an intricate, detailed taxonomy of musical patterns is suggested for instruction is entirely predicated on the chronological and musical age of the students “for the purpose of establishing the basis for complex cognition and independent musical thinking that relates to larger musical forms” Further, Gordon believes that, “in time, students should be introduced to the full range of real-life kinds of musical thinking including less conventional, and even atypical, musical practices.”<sup>33</sup>

## **Conclusions, Suggestions, and Summary**

Gordon's Music Learning Theory is the first and only comprehensive construct that explains how music learning may occur from birth to maturity and, in the case of this study, to be conveyed through conceivably all aspects of music education (but particularly through instrumental music education). As Gordon experienced the limiting effects of traditional classroom instruction during his laboratory teaching days, that is, largely rote-instruction via the Response Method, he subsequently sought meaningful activities and interactions that directly resulted in musical growth and comprehension. This led him to name that thing, that process, that intangible way of observing and knowing musical sound that each and every human possesses in greater or lesser ways: audiation. Audiation is, in fact, its own instrument that may be practiced and deliberately employed or entirely diminished and neglected. Gordon conceived that audiation advances exponentially according to each person's individual capacity just like language acquisition, development, and use. Not only through his research in audiation but also through his ideas and his words, Gordon has effectively ripped down the veil that previously obscured causality between cognitive development and musical skill and progression.

Gordon expanded his work on Music Learning Theory to encompass those stages and processes that encapsulate what he calls Preparatory Audiation or the musical experiences of young children from birth to toddler up to but not including the initial stages of the learning sequence (beginning with the Aural/Oral stage). These proliferations were not among his first major publications on the topic of audiation but they do come first in the order of child development. Gordon's work in this area allows teachers to understand how young children come to experience and acquire music thus it intimately informs them on how teach music.

If Music Learning Theory is audiation (and it certainly rests entirely on and within the notion), then it is also a tiered scaffold, a cognitive, accordion folder of phases that cannot be directly taught. Rather, a skilled instructor, utilizing regular portions and not the entirety of any one music class or rehearsal across a semester or year, must lead students to readiness for each subsequent pocket or stage. Such teachers must understand the Skill Learning Sequence that is also Music Learning Theory. This requires knowledge of the sequence and the abilities paramount to effective music instruction: an appropriate singing voice, necessary accompaniment capabilities (virtual or acoustic) that provide context, suitable modeling on at least one wind instrument, and both the ability and comfort of using conversational tonal and rhythm solfege.

Music Learning Theory is pattern instruction. Like words and subsequent sentences spoken and then written in a language, patterns of notes, rhythms, and subsequent melodic lines become the content for musical exchanges between teacher and student(s) and students amongst themselves. The construct of Music Learning Theory partitions the ways in which the instructor leads students in pattern engagement. Teachers must make the paradigm shift to pattern instruction in order to provide content in ways children understand. This does not preclude the use of other teaching methods that lead to and include concertizing. Rather, it begins to build systemic, implicit student understanding of the music students learn and perform. Utilizing Gordon's framework and ideas, instructors may abstract patterns from chosen literature and utilize them within the learning sequence. However, Gordon's extensive research has produced pattern inventories that are readily available, much more linear in development, and altogether comprehensive.

Not only is Music Learning Theory, in essence, the patterns or building blocks of instruction, it is also the unique symbolic association of appropriate tonal and rhythm syllables to those patterns, themselves. Further, tonality and rhythm, defined from within the paradigm of audiation rather than from without utilizing the language of abstract numbers and nomenclature, are intimately experienced by students in the ways that they actually learn as opposed to the preferred modalities of the teacher. Finally, the bizarre language of counting and referencing rhythm and rhythmic aspects is replaced by engaging rhythm physically through free-flowing movement set to music and led by the instructor; this movement is without beginning or end and knows no distinct choreography. Students then come to know rhythm from physical audiation! Amidst all of this is the human breath that allows the brain, a pattern-making and seeking apparatus, to predict and then respond to what the student is experiencing.

Music Learning Theory is both a curriculum and a curricular approach that is most notably exemplified by Gordon's first band method book, *Jump Right In!*, that did not initially include musical notation and was published at a time when folk songs were the basis not only for elementary music but also for the historic, wind symphony canon. In other words, the book was entirely relevant if only through the then-common-language of the folk song! Gordon's revisions and subsequent work reveal that music educators at that time and, indeed now, need curriculum development and skills to effectively engage their own students. It would seem that the elaborate basal series with deluxe graphics, digitized audio, and historical context that have exploded over the past 40 years since *Jump Right In!* first appeared would negate both Gordon's concerns and work. They have not. These may or may not represent a comprehensive curriculum as Gordon espouses but the curricular approach is entirely up to the educator.

In his ideas and among his writings, Gordon illustrates the somewhat barren landscape of instrumental music instruction by highlighting the complexities of obscuring the first instrument, audiation, while emphasizing the teaching of technical skills of the students' second or physical instruments. Music Learning Theory stands in stark contrast to the behavioral techniques used in many ensembles to produce high-level performances and, in particular, competition shows. It illumines the need for students to musically connect their two instruments before seeing notation that abstractly depicts them. Finally, it profoundly and repeatedly makes the case and lays the course for engaging students at their appropriate learning sequence stages rather than forcing them out of ensembles or frustrating them into course schedule changes.

Music Learning Theory is music literacy at every human stage as students speak and are spoken to in tonal, rhythmic, and melodic patterns they can comprehend. Similar to exposure to children's television, music, and even adult language, children expand their knowledge musically based on their environmental experiences. The ways in which they are musically spoken to are the ways in which they will eventually speak! Music teachers, like early language teachers, then relate what is known long, long before notation appears. For Gordon, literacy is not just written music... it is written music in context and it is not just that either. It is the musical expression, the musical response, the audiatonal instrument at work independent of the musical page. It very much may be in tandem with other musicians telling the same story or when interpreting a melodic line... or in response to the musical movements of the conductor.

Improvisation, for Gordon, is conversation. It exists either as brief scaffolding to another stage or as the penultimate expression of music development. Improvisation represents a musician's ability to respond to personal, audiated experiences through recall, in accord with the context of a current musical situation, or in direct response to the expression of another



musician (or musicians). Any of these situations require a reasonable command of the musical language. In his final years, Gordon went to great effort to establish improvisation from an audiatonal perspective by describing processes, patterns, and progressions according to his Music Learning Theory. In the end, Gordon profoundly pivoted all of his work on the notion that improvisation is an important aspect of each part of the learning skills sequence, tying together every last facet of his theory. Improvisational music behaviors are the outward expression of audiation.

Initial criticism for Gordon's work comes in the opposition to his new rhythm terminology. Not only does it run counter to traditional vocabulary but also traditional applications of words he does use. It seems that Music Learning Theory operates quite differently to the ways in which many music educators individually come to know and subsequently espouse music instruction for their own students. Greater opposition to Gordon's work comes from music philosopher Bennett Reimer who contends that the Music Learning Theory framework overruns the truest reasons for music education: to invoke appreciation based on teacher-led, subjective experiences that create knowledge. Gordon's response to Reimer, in essence, is that Music Learning Theory experiences inform instruction, not subsume it, and that true appreciation comes from developing skills. Further, educators seem to object to the comprehensive musical skill set that they must effectively employ in their own regular instruction. While this may be a reasonable, achievable hurdle for pre-service training to overcome, it could be a valid concern for in-service professionals that find the development or re-initiation of these skills to be too burdensome to pursue in addition to teaching, directing, and personal responsibilities. There also may be an opaque glance of behaviorism that is cast on Gordon's ideas as he impeccably details the researched, catalogued, and exemplified musical

behaviors and patterns across the strata of his theory. Quantifying pattern difficulty along theorized levels would not be, in and itself, behavioristic. The instructor would have to utilize those particular methods in that particular way using Gordon's theories and patterns, and Gordon clearly does not espouse this. Finally, it bears noting that Gordon essentially holds that music is not a language because it does not have communicative function, parts of speech or grammar. However, while risking an air of presentism, it is important to note that music *does* communicate such factors as emotion and affect (mood and response); spirituality (worship or religious sense); function (national/civic); pace (speed, intensity, or energy); intimacy, safety, and relationship (a mother's song or father's footsteps/heartbeat); and desirability (commercial or interpersonal appeal). All musics relay something to those listening and certainly to those interacting through it.

### **Suggestions**

A myriad of quantitative research studies exist that suggest the efficacy of aspects of Music Learning Theory. However, not all of the learning stages have been explored with quantitative measures. Additionally, in an effort to further explain heterogeneous instrumental learning efficacy, Gordon's learning stages could be qualitatively applied to episodic case studies of effective class instruction (e.g. the development of a particular skill or piece of literature across an extended period). This work could be critical to explaining what best practices exist, may be connected directly to parts of the theory, and also may highlight where effective strategies are lacking or altogether absent. Further longitudinal, mixed-method studies could focus on development of audiation (particularly, beginning) instrumentalists who have Music Learning Theory as part of a regular curriculum (as opposed to those who do not) and

simultaneously tackle executive skills and note-reading. The implications of such research could heavily impact beginning instrumental instruction, profoundly reform early instruction methods, and revise norms and expectations in praxis.

No doubt the work of Edwin Gordon may also nurture philosophical work and this may challenge the traditional approaches such that instrumental music instruction may shift from ends-based, rote ensemble experiences to literacy-based, open-ended episodes that allow for student musicianship, and thus, the students, themselves, to grow exponentially.

Of particular research interest is the idea of audiation as embodied phenomenology. What is the lived experience of audiation? How is it personally experienced by students, teachers? Of course the data resides in the sharing! Are there themes within the experiences? Tangentially, is it consciously used or just a cognitive function of music development and performing? This particular focus appears to be the most unique and profound data source as yet untapped- what could be learned about audiation from a wide variety of those who experience it in and, potentially, outside the worlds of music! This could profoundly inform teaching and learning as well.

Finally, external to further forms of research and proliferation of Gordon's ideas, it seems that Music Learning Theory should be made more available- consumable in a sense, approachable to the user and perceivable in applicable portions. What might this look like? It may take the guise of entire printed curricula, observable teaching strategies, or new coursework (all of the aforementioned existing in some form already through the *Gordon Institute of Learning*). It would seem that, well into the 21<sup>st</sup> century, there would also be a digital platform that could simplify programmatic, unit, or even lesson planning approaches from the perspective of Music Learning Theory such that music teachers would be able to develop comprehensive

activities and processes from simple information uploaded from an instrumental score. While it remains that the instructor must possess the pedagogical skills to do the teaching, easy access of online materials along with more wide-ranging digital tools (contextual offerings such as *Band in a Box* or *Noteflight*, in particular), could aid in much more profoundly, developmentally appropriate teaching and complement teacher music skills. Accordingly, such software, were it developed or appropriated, could provide instructional feedback in all of Gordon's stages.

### **Summary**

Music Learning Theory is a paradigm- an idea that is bound up in the human capacity to comprehend, categorize, and predict musical patterns partly, but not entirely, the same way that language is used across the span of human growth and development. Music Learning Theory is also a construct of descriptive, cognitive platforms that undergird a profound, guided journey from novice engagement through each individual's capacity for musical, technical complexity. Paramount always in the construct is the learning environment and the ways through which it becomes much more than background noise as the learner engages- even if that engagement originates in obliviousness. Music Learning Theory is an ordering of developmental stage-specific musical behaviors, benchmarks in a way, that identify student progress against the landscape of self, other learners, and teacher in instrumental music education. Nothing within the theory necessitates the corralling of students into particular stages altogether until they produce the characteristic behaviors of the instructional goals of specific instrument pedagogy or literature. This implies a vertical approach to learning from minimal to maximum. Conversely, Music Learning Theory slides along a horizontal continuum always bridging to more or less advanced stages and meeting students' needs where they are in heterogeneous

development. Subsequently, similar to various applications in cognitive psychotherapy, knowledge of learners from a Music Learning Theory perspective affords instructors a diagnostic skill to address learning issues. From this vantage, they may create and re-create learning episodes that reinforce comprehension and skill development. An effective instructor may use this analytical approach to provide foci for all learners, particularly instrumental musicians who need not be lost in executive skills, fingerings, and decoding, and, instead, develop meaningful curriculum, targeting appropriate musical goals and experiences for students and their ensembles. Gordon conceived these ideas in *his* time and within *his* experiences: the folk song, Western European traditions, and modern Jazz. Because tonal and rhythm patterns (but not always melodic patterns) form the syntax of all musics including (but not limited to) such American forms as modern rap and hip-hop, bluegrass, and all sorts of drumming and dance, Music Learning Theory is applicable and employable for student musical development.

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## Notes

### Chapter 1

<sup>1</sup> Sarah Ignatz-Hoover. "Director Marches Out On High Note." *The Lantern*, September 29, 2011. <https://www.thelantern.com/2011/09/director-marches-out-on-high-note>; Judith Katherine Delzell. "An Investigation of Musical Discrimination Training in Beginning Instrumental Music Classes." PhD diss., 1983: 11.

<sup>2</sup> Joe Allison. "What is It? Or What Is it?" *School Band & Orchestra*. 13, no. 3 (March 2010): 19; "Traditions." *The Ohio State University Marching and Athletic Bands*, September 10, 2019. <https://tbdbitl.osu.edu/marching-band/traditions>.

<sup>3</sup> Stanley L. Schleuter. *A Sound Approach to Teaching Instrumentalists: An Application of Content and Learning Sequences* (Kent, OH: Kent State University Press, 1996), 30.

<sup>4</sup> "Edwin E. Gordon." *GIML*, Gordon Institute of Music Learning, 21 Aug. 2018, [giml.org/gordon/](http://giml.org/gordon/).

<sup>5</sup> Ronald Carl Gerhardstein. "Edwin E. Gordon: A Biographical and Historical Account of an American Music Educator and Researcher." *Unpublished doctoral dissertation, Temple University* (2001): 224; James Jordan. *Inside the Choral Rehearsal* (Chicago, IL: GIA Publications, 2017), XXIV-XXV.

<sup>6</sup> E. E. Gordon. "Vectors in My Research." In *The Development and Practical Application of Music Learning Theory*, edited by Maria Runfola and Cynthia Crump Taggart, 3-50 (Chicago, IL: GIA Publications, 2005), 17.

<sup>7</sup> Edwin Gordon. *Discovering Music from the Inside Out: An Autobiography* (Chicago, IL: GIA Publications, 2006), 3.

<sup>8</sup> E. E. Gordon. "Gordon on Gordon." *The Quarterly Journal of Music Teaching and Learning* 1-2, (1991): 8.

<sup>9</sup> Gordon, *Vectors in My Research*, 17.

<sup>10</sup> Gordon, "Gordon on Gordon," 8.

<sup>11</sup> Richard F. Grunow. "The Evolution of Rhythm Syllables in Gordon's Music Learning Theory." *Quarterly Journal of Music Teaching and Learning* 3, no. 04 (1992): 98.

<sup>12</sup> Michael Mark and Charles L. Gary. *A History of American Music Education* (Blue Ridge Summit, PA: Rowman & Littlefield Education, 2007), 349.

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<sup>13</sup> Gordon, "Gordon on Gordon," 8; Edwin Gordon. *Possible Impossibilities in Undergraduate Music Education* (Chicago, IL: GIA Publications, 2010), 6.

<sup>14</sup> Gordon, "Gordon on Gordon," 9; Gordon, *Possible Impossibilities*, XV.

<sup>15</sup> Gordon, *Discovering Music*, 59; Edwin E. Gordon. "Pattern Preeminence in Learning Music." *Early Childhood Connections* 10, no. 2 (2004): 13.

<sup>16</sup> Ibid.

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## Chapter 2

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<sup>32</sup> Azzara, "Audiation," 107.

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<sup>34</sup> Gordon, *Buffalo*, 148.

<sup>35</sup> Azzara, "Audiation," 107; Mark and Madura, *Contemporary Music Education*, 154.

<sup>36</sup> Schleuter, *A Sound Approach*, 30.

<sup>37</sup> Gordon, *Learning Sequences*, 95.

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<sup>49</sup> Mark and Madura, *Contemporary Music Education*, 155.

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<sup>53</sup> *Ibid.*, 54.

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<sup>55</sup> Jordan, "Audiation and Sequencing," 12.

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- <sup>72</sup> Schleuter, *A Sound Approach*, 31.
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- <sup>87</sup> Gordon, *Possible Impossibilities*, 110; Gordon, *Preparatory Audiation, Audiation, and Music Learning Theory*, 27; Shuler, "A Critical Examination," 41.
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- <sup>89</sup> Schleuter, *A Sound Approach*, 33.
- <sup>90</sup> Mark and Madura, *Contemporary Music Education*, 156; Gordan, *Untying Gordian Knots*, 21.
- <sup>91</sup> Palac, "Music Learning Theory," 58.
- <sup>92</sup> Jordan, "Audiation and Sequencing," 12; Schleuter, *A Sound Approach*, 31; Schuler, "A Critical Examination," 41.
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- <sup>96</sup> Gordon, *Learning Sequences*, 130; Gordon, *Preparatory Audiation, Audiation, and Music Learning Theory*, 27, *Ibid.*, 28; Schleuter, *A Sound Approach*, 31; Shuler, "A Critical Examination," 41.
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- <sup>4</sup> Ibid., 8-9.
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- <sup>9</sup> Gordon, *Rhythm*, 162.
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- <sup>13</sup> Gordon, "Pattern Preeminence," 7.
- <sup>14</sup> Gordon, *Essential Preparation*, 4.
- <sup>15</sup> Ibid., 6.
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- <sup>28</sup> Gordon, *Essential Preparation*, 57; Gordon, *Possible Impossibilities*, 62; Edwin Gordon. *Taking a Reasonable and Honest Look at Tonal Solfege and Rhythm Solfege* (Chicago, IL: GIA Publications, 2009), 20.
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- <sup>33</sup> Gordon. "All About Audiation," 42.
- <sup>34</sup> Gordon, *Corybantic Conversations*, 148.
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#### Chapter 4

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<sup>8</sup> Gordon, *Taking a Reasonable and Honest Look*, 15; Gordon, *Rhythm*, 9.

<sup>9</sup> *Ibid.*, 188.

<sup>10</sup> Schleuter, *A Sound Approach*, 34.

<sup>11</sup> *Ibid.*, 16.

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<sup>13</sup> Gordon, *Possible Impossibilities*, 157; Gordon, *Space Audiation*, 11.

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<sup>15</sup> Gordon, *Essential Preparation*, 13; Gordon, *Music Education Musings*, 8.

<sup>16</sup> Gordon, "Audiation, Music Learning Theory, Music Aptitude, and Creativity," 76-77.

<sup>17</sup> Gordon, *Discovering Music*, 89-90; Gordon, *Essential Preparation*, 14; Gordon, *Music Education Musings*, 8; Jordan, *Inside the Choral Rehearsal*, XXV.

<sup>18</sup> Gordon, *Essential Preparation*, 13.

<sup>19</sup> Dalby, "Teaching Audiation," 22; Gordon, *Discovering Music*, 89; Gordon, *Possible Impossibilities*, 1; Gordon, *Vectors in My Research*, 29; Jordan, *Inside the Choral Rehearsal*, 5; Saunders, "The Stages of Music Audiation," 131.

<sup>20</sup> Gordon, *Discovering Music*, 89; Gordon, "Music Learning and Learning Theory," 66; Gordon, *Roots of Music Learning Theory*, 25; Gordon, *Space Audiation*, 9; Gordon, *Vectors in My Research*, 6; *Ibid.*, 29.

<sup>21</sup> Jordan, *Inside the Choral Rehearsal*, 5.

<sup>22</sup> Gordon, "Audiation, Imitation and Notation," 15; *Ibid.*, 16; Saunders, "The Stages of Music Audiation," 132; Gordon, *Untying Gordian Knots*, 4.

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- <sup>23</sup> Gordon, *The Aural/Visual Experience*, 2.
- <sup>24</sup> Gordon, *Discovering Music*, 89; Gordon, *Rhythm*, 12; Gordon, *Space Audiation*, 10.
- <sup>25</sup> Gordon, *Audiation*, 40.
- <sup>26</sup> Gordon, *Space Audiation*, 10.
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- <sup>29</sup> Ibid., 14.
- <sup>30</sup> Gordon, *Buffalo Music Learning Theory*, IX; Gordon, *Improvisation*, 4; Gordon, *Music Education Musings*, 8; Gordon, *The Aural/Visual Experience*, 1; Gordon, *Rhythm*, 10; Gordon, *Taking a Reasonable and Honest Look*, 16.
- <sup>31</sup> Gordon, *Essential Preparation*, 15.
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- <sup>34</sup> Edwin E. Gordon. "Audiation, Imitation and Notation," 16.
- <sup>35</sup> Bluestine, *The Ways Children Learn Music*, 17.
- <sup>36</sup> Jordan, "Audiation and Sequencing," 13; Jordan, *Inside the Choral Rehearsal*, XXV; Gordon, *Rhythm: Contrasting the Implications*, 15; Gordon, *Space Audiation*, 12.
- <sup>37</sup> Gordon, *Space Audiation*, 12.
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- <sup>40</sup> Gordon, *Possible Impossibilities*, 101.
- <sup>41</sup> Ibid., 102.

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- <sup>42</sup> Ibid.
- <sup>43</sup> Gordon, "Audiation, Imitation and Notation," 17.
- <sup>44</sup> Grunow, "The Evolution," 98, Lange, *Together in Harmony*, 20.
- <sup>45</sup> Gordon, "Audiation, Music Learning Theory, Music Aptitude, and Creativity," 76; Jordan, *Inside the Choral Rehearsal*, 6; Lange, *Together in Harmony*, 20.
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- <sup>52</sup> Grunow, "The Evolution," 102.
- <sup>53</sup> Gordon, "Audiation, Imitation and Notation," 16; Gordon, *Rhythm: Contrasting the Implications*, 12; Gordon, *Untying Gordian Knots*, 10.
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- <sup>57</sup> Gordon, *Learning Sequences*, 39; Gordon, *Preparatory Audiation, Audiation, and Music Learning Theory*, 3; Gordon, *Rhythm*, 161; Edwin E. Gordon and Christine Jordanoff. "Kodaly and Gordon: Same and Different." *Kodaly Envoy* (1993): 24.
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- <sup>59</sup> Gordon, *Rhythm*, 161; Gordon, *The Aural/Visual Experience*, VI.

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- <sup>60</sup> Ibid.
- <sup>61</sup> Gordon, *Corybantic Conversations*, 65.
- <sup>62</sup> Gordon, "Audiation," 12.
- <sup>63</sup> Ibid., 40.
- <sup>64</sup> Gordon, "Audiation, Imitation and Notation," 16.
- <sup>65</sup> Gordon, *Corybantic Conversations*, 138.
- <sup>66</sup> Gordon, *Possible Impossibilities*, 8.
- <sup>67</sup> Gordon, *Rhythm*, 162.
- <sup>68</sup> Gordon, *Preparatory Audiation, Audiation, and Music Learning Theory*, 3.
- <sup>69</sup> Gordon, *Rhythm*, 162.
- <sup>70</sup> Gordon, "Audiation, Imitation and Notation," 59.
- <sup>71</sup> Ibid., paragraph 16.
- <sup>72</sup> Ibid., paragraph 14.
- <sup>73</sup> Gordon, *Corybantic Conversations*, 38.
- <sup>74</sup> Richard F. Grunow. "Music Learning Theory: A Catalyst for Change in Beginning Instrumental Music Instruction." In *The Development and Practical Application of Music Learning Theory*, eds. Maria Runfola and Cynthia Crump Taggart (Chicago, IL: GIA Publications, 2005), 186-187.
- <sup>75</sup> Grunow, "Music Learning Theory," 186.
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- <sup>77</sup> Gordon "All about Audiation," 42; Gordon, *Improvisation*, 3; Gordon, *The Aural/Visual Experience*, 2.
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- <sup>79</sup> Gordon, *Space Audiation*, 10.

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<sup>81</sup> Gordon, *Discovering Music*, 89-90.

<sup>82</sup> Gordon, *Buffalo*, IX; Gordon, *Preparatory Audiation, Audiation, and Music Learning Theory*, 3; Gordon, *Rhythm*, 9; Gordon, *Taking a Reasonable and Honest Look*, 16; Gordon, *The Aural/Visual Experience*, 1.

<sup>83</sup> Gordon, "Music Learning and Learning Theory," 64.

<sup>84</sup> Bluestine, *The Ways Children Learn Music*, 114; Gordon, "Music Learning and Learning Theory," 64; Gordon, *Rhythm*, 11.

<sup>85</sup> Lange, *Together in Harmony*, 19.

<sup>86</sup> Gordon, "Pattern Preeminence," 12.

<sup>87</sup> Gordon, "Pattern Preeminence," 13.

<sup>88</sup> Gordon, *The Aural/Visual Experience*, 18.

<sup>89</sup> Gordon, *Music Learning and Learning Theory*, 64; Gordon, "Pattern Preeminence," 13.

<sup>90</sup> Bluestine, *The Ways Children Learn Music*, 39; Gordon, *Music Learning and Learning Theory*, 64.

<sup>91</sup> *Ibid.*, 75.

<sup>92</sup> *Ibid.*, 76

<sup>93</sup> Levinowitz, "Informal Music Instruction," 77.

<sup>94</sup> Gordon, "Audiation, Imitation and Notation," 15; Levinowitz, "Informal Music Instruction," 74-75; *Ibid.*, 77.

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<sup>96</sup> Gordon, *Preparatory Audiation, Audiation, and Music Learning Theory*, 7.

<sup>97</sup> Gordon, *Rhythm*, 162.

<sup>98</sup> Gordon, "Audiation, Imitation and Notation," 17.

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- <sup>99</sup> Ibid., 59.
- <sup>100</sup> Ibid.
- <sup>101</sup> Gordon, "All about Audiation," 43.
- <sup>102</sup> Gordon, "Audiation, Imitation and Notation," 17; Michele Holt and James Mark Jordan, eds. *The School Choral Program: Philosophy, Planning, Organizing, and Teaching* (Chicago, IL: GIA Publications, 2008), 174.
- <sup>103</sup> Gordon, "Audiation, Imitation and Notation," 17.
- <sup>104</sup> Holt and Jordan, *The School Choral Program*, 174.
- <sup>105</sup> Ibid., 160.
- <sup>106</sup> Gordon, *Rhythm*, 18-24; Mark and Madura. *Contemporary Music Education*, 41.
- <sup>107</sup> Gordon, *Rhythm*, 20.
- <sup>108</sup> Ibid., 21.
- <sup>109</sup> Ibid., 22.
- <sup>110</sup> Ibid., 23.
- <sup>111</sup> Gordon, *Preparatory Audiation, Audiation, and Music Learning Theory*, 11; Gordon, *Rhythm*, 24.
- <sup>112</sup> Gordon, *Rhythm*, 11; Gordon, *Taking a Reasonable and Honest Look*, 16; Gordon, *Rhythm*, 24-30; Saunders, "The Stages of Music Audiation," 135.
- <sup>113</sup> Edwin E. Gordon. "Types and Stages of Audiation." *GIML*, 23 Jan. 2015, [giml.org/mlt/audiationdetails/](http://giml.org/mlt/audiationdetails/).
- <sup>114</sup> Gordon, *Learning Sequences*, 24.
- <sup>115</sup> Ibid., 148
- <sup>116</sup> Gordon, *Preparatory Audiation, Audiation, and Music Learning Theory*, 14-15.
- <sup>117</sup> Gordon, *Learning Sequences*, 18; Gordon, *Rhythm*, 29; Holt and Jordan, *The School Choral Program*, 174.



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<sup>118</sup> Gordon, "Audiation," 41.

<sup>119</sup> Holt and Jordan, *The School Choral Program*, 174.

## Chapter 5

<sup>1</sup> Bluestine, *The Ways Children Learn Music*, 19.

<sup>2</sup> Ibid., 18.

<sup>3</sup> Ibid.

<sup>4</sup> Gordon, "Pattern Preeminence," 9-10.

<sup>5</sup> Conway, "The implementation," 30.

<sup>6</sup> Ibid., 69.

<sup>7</sup> Palac, "Music Learning Theory," 61.

<sup>8</sup> Gordon, *Corybantic Conversations*, 133.

<sup>9</sup> Gordon, *Music Education Musings*, 13.

<sup>10</sup> Lange, *Together in Harmony*, 20.

<sup>11</sup> Ibid., 17.

<sup>12</sup> Gordon, *Learning Sequences*, 218; Grunow, "The Evolution," 102.

<sup>13</sup> Gordon, *Learning Sequences*, 219.

<sup>14</sup> Bluestine, *The Ways Children Learn Music*, 18.

<sup>15</sup> Gordon, "Pattern Preeminence," 10; Gordon, *Corybantic Conversations*, 128; Saunders, "The Stages of Music Audiation," 131; Schleuter, *A Sound Approach*, 30.

<sup>16</sup> Gordon, *Corybantic Conversations*, 128; Gordon, "Pattern Preeminence," 10; Jordan, *Inside the Choral Rehearsal*, 7.

<sup>17</sup> Gordon, "Pattern Preeminence," 10.

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- <sup>18</sup> Palac, "Music Learning Theory," 57.
- <sup>19</sup> Gordon, *Possible Impossibilities*, 62; Shuler, "A Critical Examination," 46.
- <sup>20</sup> Conway, "The Implementation," 37.
- <sup>21</sup> Bluestine, *The Ways Children Learn Music*, 42.
- <sup>22</sup> Gordon, *Essential Preparation*, 2.
- <sup>23</sup> Bluestine, *The Ways Children Learn Music*, 63.
- <sup>24</sup> *Ibid.*, 46.
- <sup>25</sup> Mark and Madura, *Contemporary Music Education*, 159.
- <sup>26</sup> Shuler, "A Critical Examination, 42.
- <sup>27</sup> *Ibid.*, 42-43.
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- <sup>29</sup> Bluestine, *The Ways Children Learn Music*, 145.
- <sup>30</sup> *Ibid.*, 144.
- <sup>31</sup> Gordon, *Corybantic Conversations*, 133.
- <sup>32</sup> Gordon, *The Aural/Visual Experience*, 51.
- <sup>33</sup> *Ibid.*, 52.
- <sup>34</sup> *Ibid.*, 81.
- <sup>35</sup> Gordon, *Vectors in My Research*, 13-14.
- <sup>36</sup> Gordon, *The Aural/Visual Experience*, 63.
- <sup>37</sup> *Ibid.*, 93.
- <sup>38</sup> *Ibid.*, 94.
- <sup>39</sup> *Ibid.*, 94-95.
- <sup>40</sup> *Ibid.*, 95.

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- <sup>41</sup> Ibid., 96.
- <sup>42</sup> Ibid., 73.
- <sup>43</sup> Ibid., 74.
- <sup>44</sup> Palac, "Music Learning Theory," 58.
- <sup>45</sup> Jordan, *Inside the Choral Rehearsal*, XXV.
- <sup>46</sup> Ibid.
- <sup>47</sup> Gordon, *Music Education Musings*, 31.
- <sup>48</sup> Gordon, *Corybantic Conversations*, 73; Gordon, *Taking a Reasonable and Honest Look*, 2.
- <sup>49</sup> Gordon, *Corybantic Conversations*, 141.
- <sup>50</sup> Gordon, *Untying Gordian Knots*, 5.
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- <sup>52</sup> Ibid., 166.
- <sup>53</sup> Conway, "The Implementation," 30.
- <sup>54</sup> Gordon, "Pattern Preeminence," 9.
- <sup>55</sup> Ibid., 76.
- <sup>56</sup> Norman, "Developing Thinking Musicians," 201.
- <sup>57</sup> Grunow, "Music Learning Theory," 189.
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- <sup>59</sup> Mark and Madura, *Contemporary Music Education*, 159.
- <sup>60</sup> Gordon, *How Children Learn*, 160.
- <sup>61</sup> Ibid., 35.

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<sup>62</sup> Mark and Madura, *Contemporary Music Education*, 160.

<sup>63</sup> *Ibid.*, 162.

<sup>64</sup> Gordon, "Pattern Preeminence," 12.

<sup>65</sup> Schleuter, *A Sound Approach*, 35.

<sup>66</sup> *Ibid.*, 30.

<sup>67</sup> Gordon, "Pattern Preeminence," 9.

<sup>68</sup> Gordon, *Corybantic Conversations*, 133; Gordon, "Pattern Preeminence," 10.

## Chapter 6

<sup>1</sup> Gordon, *Rhythm*, XIV; *Ibid.*, 1; *Ibid.*, 2; Mark and Madura, *Contemporary Music Education*, 161.

<sup>2</sup> Grunow, "The Evolution," 97.

<sup>3</sup> *Ibid.*, 98.

<sup>4</sup> Gordon, *How Children Learn*, 1; *Ibid.*, 3; Gordon, *Improvisation*, 15; *Ibid.*, 15-16; Gordon, *Learning Sequences*, 174; *Ibid.*, 177-178; Gordon, *Possible Impossibilities*, 62; Gordon, *Rhythm*, 32; Gordon, *Taking a Reasonable and Honest Look*, 41; Gordon, *The Aural/Visual Experience*, 25; Gordon, *Untying Gordian Knots*, 5.

<sup>5</sup> Gordon, *Possible Impossibilities*, 37.

<sup>6</sup> Gordon, *Rhythm*, 32.

<sup>7</sup> Gordon, *How Children Learn*, 2; *Ibid.*; 3; Mark and Madura, *Contemporary Music Education*, 161.

<sup>8</sup> Gordon, *Rhythm*, 162.

<sup>9</sup> *Ibid.*, 3.

<sup>10</sup> *Ibid.*, 2.

<sup>11</sup> Gordon, *Possible Impossibilities*, 107.

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- <sup>12</sup> Gordon, *Rhythm*, 3.
- <sup>13</sup> Gordon, *How Children Learn*, 1; Gordon, *Improvisation*, 16.
- <sup>14</sup> Gordon, *Improvisation*, 17; *Ibid.*, 20; Gordon, *Possible Impossibilities*, 62; Gordon, *Taking a Reasonable and Honest Look*, 42; Gordon, *The Aural/Visual Experience*, 25.
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- <sup>16</sup> Gordon, *Rhythm*, 58.
- <sup>17</sup> Gordon, *Learning Sequences*, 207; Gordon, *Rhythm*, 140; Gordon, *Untying Gordian Knots*, 25.
- <sup>18</sup> Bruce Dalby. "Toward an effective pedagogy for teaching rhythm: Gordon and beyond." *Music Educators Journal* 92, no. 1 (2005): 54; Gordon, *Taking a Reasonable and Honest Look*, 41; *Ibid.*, 46; Grunow, "The Evolution," 98.
- <sup>19</sup> Dalby, "Toward an effective pedagogy," paragraph 15.
- <sup>20</sup> *Ibid.*, paragraph 17.
- <sup>21</sup> Gordon, *Improvisation*, 19; Gordon, *Learning Sequences*, 175; Gordon, *Possible Impossibilities*, 38.
- <sup>22</sup> Gordon, *Improvisation*, 20; Gordon, *Taking a Reasonable and Honest Look*, 44.
- <sup>23</sup> Gordon, *Possible Impossibilities*, 46; Grunow, "The Evolution of Rhythm Syllables," 98; Mark and Madura, *Contemporary Music Education*, 161.
- <sup>24</sup> Gordon, *Improvisation*, 17; Gordon, *Possible Impossibilities*, 36; *Ibid.*, 37; Gordon, *Learning Sequences*, 175-176; Gordon, *Taking a Reasonable and Honest Look*, 42; Grunow, "The Evolution," 98; Mark and Madura, *Contemporary Music Education*, 161.
- <sup>25</sup> Gordon, *Improvisation*, 17-18; Gordon, *Possible Impossibilities*, 37; Gordon, *Taking a Reasonable and Honest Look*, 42.
- <sup>26</sup> Gordon, *Possible Impossibilities*, 36-37; Gordon, *Taking a Reasonable and Honest Look*, 44.
- <sup>27</sup> Gordon, *The Aural/Visual Experience*, 25.

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<sup>28</sup> Gordon, *Learning Sequences*, 175; Gordon, *Possible Impossibilities*, 37, Gordon, *The Aural/Visual Experience*, 25.

<sup>29</sup> Gordon, *Possible Impossibilities*, 38.

<sup>30</sup> Gordon, *Learning Sequences*, 182-183; Gordon, *Possible Impossibilities*, 39; Gordon, *Taking a Reasonable and Honest Look*, 48.

<sup>31</sup> Gordon, *Learning Sequences*, 182-183.

<sup>32</sup> Gordon, *Possible Impossibilities*, 39.

<sup>33</sup> Gordon, *Possible Impossibilities*, 39; Gordon, *Taking a Reasonable and Honest Look*, 48.

<sup>34</sup> Gordon, *Possible Impossibilities*, 44; Gordon, *Taking a Reasonable and Honest Look*, 51.

<sup>35</sup> Gordon, *Taking a Reasonable and Honest Look*, 51.

<sup>36</sup> Gordon, *How Children Learn*, 18.

<sup>37</sup> Dalby, "Toward an effective pedagogy," paragraph 13; Gordon, *Possible Impossibilities*, 45; Gordon, *Taking a Reasonable and Honest Look*, 51.

<sup>39</sup> Gordon, *Taking a Reasonable and Honest Look*, 52.

<sup>40</sup> Dalby, "Toward an effective pedagogy," 14.

<sup>41</sup> *Ibid.*, 22.

<sup>42</sup> Gordon, *Learning Sequences*, 207; Gordon, *Possible Impossibilities*, 40; Gordon, *Rhythm*, 63.

<sup>43</sup> Gordon, *Possible Impossibilities*, 40.

<sup>44</sup> Gordon, *Learning Sequences*, 188-129; *Ibid.*, 205; Gordon, *Music Education Musings*, 24; Gordon, *Possible Impossibilities*, 40; *Ibid.*, 75; Gordon, *Rhythm*, 59; *Ibid.*, 63.

<sup>45</sup> Gordon, *Possible Impossibilities*, 40; Gordon, *Rhythm*, 63.

<sup>46</sup> Gordon, *Possible Impossibilities*, 74-75; *Ibid.*, 76; Gordon, *Rhythm*, 124.

<sup>47</sup> Gordon, *The Aural/Visual Experience*, 11.

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- <sup>48</sup> Gordon, *Possible Impossibilities*, 76.
- <sup>49</sup> Gordon, *Buffalo Music Learning Theory*, 6.
- <sup>50</sup> Gordon, *Possible Impossibilities*, 74; Gordon, *Rhythm*, 125.
- <sup>51</sup> Gordon, *Rhythm*, 93; Gordon, *Taking a Reasonable and Honest Look*, 31.
- <sup>52</sup> Gordon, *The Aural/Visual Experience*, 10.
- <sup>53</sup> Gordon, *Possible Impossibilities*, 74.
- <sup>54</sup> Gordon, *Learning Sequences*, 188-189; Gordon, *The Aural/Visual Experience*, 11.
- <sup>55</sup> Gordon, *Possible Impossibilities*, 73.
- <sup>56</sup> Gordon, *The Aural/Visual Experience*, 10.
- <sup>57</sup> Gordon, *How Children Learn*, 2; Gordon, *Learning Sequences*, 195; Gordon, *Possible Impossibilities*, 48; Gordon, *Taking a Reasonable and Honest Look*, 54; Gordon, *Untying Gordian Knots*, 11.
- <sup>58</sup> Gordon, *Improvisation*, 18.
- <sup>59</sup> Grunow, "The Evolution," 102.
- <sup>60</sup> Gordon, *Learning Sequences*, 195; Gordon, *Possible Impossibilities*, 48; Gordon, *Taking a Reasonable and Honest Look*, 54; *Ibid.*, 55; Gordon, *Rhythm*, 120.
- <sup>61</sup> Gordon, *Learning Sequences*, 196; Gordon, *Rhythm*, 119-120.
- <sup>62</sup> Gordon, *How Children Learn*, XV.
- <sup>63</sup> *Ibid.*
- <sup>64</sup> Dalby, "Toward an effective pedagogy," 56.
- <sup>65</sup> *Ibid.*, 55.
- <sup>66</sup> *Ibid.*, 54.
- <sup>67</sup> Mark and Madura, *Contemporary Music Education*, 160; Norman, "Developing Thinking Musicians," 206.

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<sup>68</sup> Dalby, "Toward an effective pedagogy," paragraph 11; Mark and Madura, *Contemporary Music Education*, 161.

<sup>69</sup> Mark and Madura. *Contemporary Music Education*, 161.

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<sup>1</sup> Gordon, *Music Education Musings*, 56.

<sup>2</sup> Gordon, *Possible Impossibilities*, 57; Bluestine, *The Ways Children Learn Music*, 118.

<sup>3</sup> Gordon, *Improvisation*, 33; Gordon, *How Children Learn*, 38.

<sup>4</sup> Azzara, "Audiation," 108.

<sup>5</sup> Bluestine, *The Ways Children Learn Music*, 117; Gordon, *Learning Sequences*, 65; Gordon, *Untying Gordian Knots*, 26.

<sup>6</sup> Gordon, *How Children Learn*, 39; Gordon, *Learning sequence*, 65-67.

<sup>7</sup> Bluestine, *The Ways Children Learn Music*, 75.

<sup>8</sup> Gordon, *The Aural/Visual Experience*, 30-31.

<sup>9</sup> Gordon, *How Children Learn*, 38; Bluestine, *The Ways Children Learn Music*, 126.

<sup>10</sup> Gordon, *Learning Sequences*, 69-70.

<sup>11</sup> Gordon, *How Children Learn*, 39.

<sup>12</sup> Gordon, *Learning Sequences*, 65; Gordon, *Taking a Reasonable and Honest Look*, 37; Gordon, *The Aural/Visual Experience*, 35-36.

<sup>13</sup> Ibid.

<sup>14</sup> Gordon, *Taking a Reasonable and Honest Look*, 37; Gordon, *The Aural/Visual Experience*, 31.

<sup>15</sup> Bluestine, *The Ways Children Learn Music*, 126.

<sup>16</sup> Gordon, *Learning Sequences*, 65.

<sup>17</sup> Gordon, *Taking a Reasonable and Honest Look*, 35; Gordon, *The Aural/Visual Experience*, 35-36.



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- <sup>18</sup> Bluestine, *The Ways Children Learn Music*, 130.
- <sup>19</sup> Gordon, *Learning Sequences*, 35-36; *Ibid.*, 71-72; Gordon, *Taking a Reasonable and Honest Look*, 35.
- <sup>20</sup> Bluestine, *The Ways Children Learn Music*, 118; Gordon, *Essential Preparation*, 115; Gordon, *Possible Impossibilities*, 56.
- <sup>21</sup> Gordon, *How Children Learn*, 38.
- <sup>22</sup> Gordon, *Learning Sequences*, 72-73; Gordon, *Taking a Reasonable and Honest Look*, 29; Gordon, *The Aural/Visual Experience*, 36-38.
- <sup>23</sup> Gordon, *Taking a Reasonable and Honest Look*, 39.
- <sup>24</sup> Gordon, *Taking a Reasonable and Honest Look*, 29-30; Gordon, *The Aural/Visual Experience*, 36-38; Gordon, *Untying Gordian Knots*, 26.
- <sup>25</sup> Grunow, "The Evolution," 98.
- <sup>26</sup> Bluestine, *The Ways Children Learn Music*, 117; Gordon, *Learning Sequences*, 77.
- <sup>27</sup> Bluestine, *The Ways Children Learn Music*, 117; Gordon, *Learning Sequences*, 77; *Ibid.*; 87-88; Gordon, *Untying Gordian Knots*, 27.
- <sup>28</sup> Gordon, *Learning Sequences*, , 78; Gordon, *Rhythm*, 96; Gordon, *Taking a Reasonable and Honest Look*, 57; Gordon, *The Aural/Visual Experience*, 38.
- <sup>29</sup> Gordon, *Rhythm*, 97; Gordon, *Taking a Reasonable and Honest Look*, 57; Gordon, *The Aural/Visual Experience*, 38.
- <sup>30</sup> Gordon, *Learning Sequences*, 78; Gordon, *Rhythm*, 97; Gordon, *The Aural/Visual Experience*, 39.
- <sup>31</sup> Gordon, *Rhythm*, 104.
- <sup>32</sup> Gordon, *Rhythm*, 100-101; Gordon, *The Aural/Visual experience*, 41.
- <sup>33</sup> Gordon, *Learning Sequences*, 80-82; Gordon, *Rhythm*, 100; Gordon, *Taking a Reasonable and Honest Look*, 69; Gordon, *The Aural/Visual Experience*, 41.
- <sup>34</sup> Gordon, *Rhythm*, 97. *Ibid.*, 102; Gordon, *Possible Impossibilities*, 68; Gordon, *Taking a Reasonable and Honest Look*, 65.

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<sup>35</sup> Gordon, *Rhythm*, 96; *Ibid.*, 101; Gordon, *Taking a Reasonable and Honest Look*, 71; Gordon, *The Aural/Visual Experience*, 41.

<sup>36</sup> Gordon, *Taking a Reasonable and Honest Look*, 71.

<sup>37</sup> Gordon, *Rhythm*, 101; Gordon, *Taking a Reasonable and Honest Look*, 71; Gordon, *The Aural/Visual Experience*, 41.

<sup>38</sup> Gordon, *Learning Sequences*, 87-88; Gordon, *Taking a Reasonable and Honest Look*, 71.

<sup>39</sup> Gordon, *Rhythm*, 98; Gordon, *Taking a Reasonable and Honest Look*, 58; Gordon, *The Aural/Visual Experience*, 39.

<sup>40</sup> Gordon, *Rhythm*, 119; Gordon, *Rhythm: Contrasting the Implications*, 94-95.

<sup>41</sup> Gordon, *Rhythm*, 98; Gordon, *Taking a Reasonable and Honest Look*, 58; Gordon, *The Aural/Visual experience*, 39.

<sup>42</sup> Gordon, *Rhythm*, 96.

<sup>43</sup> Gordon, *Learning Sequences*, 79-80; Gordon, *Rhythm*, 96.

<sup>44</sup> Gordon, *Rhythm*, 99; Gordon, *Taking a Reasonable and Honest Look*, 57-58; Gordon, *The Aural/Visual Experience*, 40.

<sup>45</sup> Gordon, *Rhythm*, 99; Gordon, *The Aural/Visual Experience*, 40.

<sup>46</sup> Bluestine, *The Ways Children Learn Music*, 119-120; Gordon, *The Aural/Visual Experience*, 10.

<sup>47</sup> Bluestine, *The Ways Children Learn Music*, 122; Gordon, *Rhythm: Contrasting the Implications*, 97-98; *Ibid.*, 103; Gordon, *Taking a Reasonable and Honest Look*, 65; Gordon, *Possible Impossibilities*, 68.

<sup>48</sup> Gordon, *Taking a Reasonable and Honest Look*, 65; *Ibid.*, 66; Gordon, *Possible Impossibilities*, 68; Gordon, *The Aural/Visual Experience*, 44.

<sup>49</sup> Gordon, *Rhythm*, 103.

<sup>50</sup> Bluestine, *The Ways Children Learn Music*, 122.

<sup>51</sup> Gordon, *Rhythm*, 103.

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<sup>52</sup> Gordon, *Taking a Reasonable and Honest Look*, 65; Gordon, *The Aural/Visual Experience*, 44.

<sup>53</sup> Gordon, *Taking a Reasonable and Honest Look*, 67; Gordon, *The Aural/Visual Experience*, 44.

<sup>54</sup> Gordon, *Learning Sequences*, 87-88; Gordon, *Rhythm*, 109; Gordon, *Taking a Reasonable and Honest Look*, 73-74; Richard Hoffman, William Pelto, and John W. White. "Takadimi: A beat-oriented system of rhythm pedagogy." *Journal of Music Theory Pedagogy* 10, (1996): 7.

<sup>55</sup> Gordon, *Taking a Reasonable and Honest Look*, 73-74.

<sup>56</sup> *Ibid.*, 74.

<sup>57</sup> *Ibid.*

<sup>58</sup> Gordon, *Learning Sequences*, 85-86. Gordon, *Possible Impossibilities*, 69-70; Gordon, *Rhythm*, 105-106; Gordon, *Taking a Reasonable and Honest Look*, 61; Gordon, *The Aural/Visual Experience*, 45; Gordon, *Untying Gordian Knots*, 27.

<sup>59</sup> Bluestine, *The Ways Children Learn Music*, 62. Gordon, *Possible Impossibilities*, 69-70; Gordon, *Rhythm*, 105-106; Gordon, *Taking a Reasonable and Honest Look*, 61; Gordon, *The Aural/Visual Experience*, 45.

<sup>60</sup> Gordon, *Essential Preparation*, 22; Gordon, *Possible Impossibilities*, 68; *Ibid.*, 69-70; Gordon, *Rhythm*, 105-106; Gordon, *Taking a Reasonable and Honest Look*, 61; Gordon, *The Aural/Visual Experience*, 45; Gordon, *Untying Gordian Knots*, 8.

<sup>61</sup> Gordon, *Essential Preparation*, 22; Gordon, *Possible Impossibilities*, 68-70; Gordon, *Rhythm*, 105-106; *Contrasting the Implications*, 98-100; Gordon, *Taking a Reasonable and Honest Look*, 61; Gordon, *The Aural/Visual Experience*, 45.

<sup>62</sup> Gordon, *Rhythm*, 105. Gordon, *Possible Impossibilities*, 69-70; Gordon, *Taking a Reasonable and Honest Look*, 61; Gordon, *The Aural/Visual Experience*, 45.

<sup>63</sup> Gordon, *Essential Preparation*, 22; Gordon, *Possible Impossibilities*, 69-70; Gordon, *Rhythm*, 105; *Ibid.*, 106; Gordon, *Taking a Reasonable and Honest Look*, 61; Gordon, *The Aural/Visual Experience*, 45.

<sup>64</sup> Gordon, *Improvisation*, 22.

<sup>65</sup> Gordon, *Possible Impossibilities*, 69-70; Gordon, *Rhythm*, 105-106; Gordon, *Taking a Reasonable and Honest Look*, 61; Gordon, *The Aural/Visual Experience*, 45.

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<sup>66</sup> Bluestine, *The Ways Children Learn Music*, 62.

<sup>67</sup> *Ibid.*, 118.

<sup>68</sup> *Ibid.*, 98.

<sup>69</sup> *Ibid.*, 101.

<sup>70</sup> Gordon, *Rhythm*, 106; Gordon, *Taking a Reasonable and Honest Look*, 59; Gordon, *The Aural/Visual Experience*, 45.

<sup>71</sup> Gordon, *Rhythm*, 108; Gordon, *Taking a Reasonable and Honest Look*, 59.

<sup>72</sup> Gordon, *Taking a Reasonable and Honest Look*, 11.

## Chapter 7

<sup>1</sup> Gordon, *Essential Preparation*, VIII.

<sup>2</sup> *Ibid.*, X.

<sup>3</sup> Gordon, "Musical child abuse," X.

<sup>4</sup> Gordon, *Buffalo Music Learning Theory*, 113.

<sup>5</sup> Gordon, *Essential Preparation*, 113.

<sup>6</sup> *Ibid.*

<sup>7</sup> Gordon, "Musical child abuse," 15.

<sup>8</sup> Gordon, *Essential Preparation*, IX.

<sup>9</sup> Gordon, *Essential Preparation*, 12; Gordon, *Music Education Musings*, 52; Gordon, *Vectors in My Research*, 21.

<sup>10</sup> Gordon, *Buffalo*, 77; Gordon, *Rhythm*, 163.

<sup>11</sup> Gordon, *Buffalo*, 77.

<sup>12</sup> *Ibid.*, 78.

<sup>13</sup> *Ibid.*

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- <sup>14</sup> Ibid., 84-85.
- <sup>15</sup> Gordon, "Music Learning and Learning Theory," 64.
- <sup>16</sup> Gordon, *Essential Preparation*, X.
- <sup>17</sup> Mark and Madura, *Contemporary Music Education*, 152.
- <sup>18</sup> Ibid., 153.
- <sup>19</sup> Gordon, *Learning Sequences*, 32; Ibid., 33; Ibid., 36.
- <sup>20</sup> Gordon, *Learning Sequences*, 33; Ibid., 36.
- <sup>21</sup> Ibid., 33.
- <sup>22</sup> Palac, "Music Learning Theory," 57; Schleuter, *A Sound Approach*, 34.
- <sup>23</sup> Schleuter, *A Sound Approach*, 37.
- <sup>24</sup> Mark and Madura, *Contemporary Music Education*, 162.
- <sup>25</sup> Ibid., 163.
- <sup>26</sup> Ibid.
- <sup>27</sup> Gerhardstein, "Edwin E. Gordon," 83.
- <sup>28</sup> Ibid., 84.
- <sup>29</sup> Ibid., 85.
- <sup>30</sup> Grunow, "Music Learning Theory," 181; Norman, "Developing Thinking Musicians," 202.
- <sup>31</sup> Shuler, "Music Learning Sequence Techniques," 208.
- <sup>32</sup> Suzanne L. Burton. "Implementing Music Learning Theory." In *The Development and Practical Application of Music Learning Theory*, edited by Maria Runfola and Cynthia Crump Taggart (Chicago, IL: GIA Publications, 2005), 498-501.
- <sup>33</sup> Burton, "Implementing Music Learning Theory," 494.
- <sup>34</sup> Grunow, "Music Learning Theory," 179; Ibid., 180; Ibid., 181-182; Norman, "Developing Thinking Musicians," 208.

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- <sup>35</sup> Grunow, "Music Learning Theory," 184.
- <sup>36</sup> Ibid., 192.
- <sup>37</sup> Schilling, "Music Learning Sequence Techniques," 228.
- <sup>38</sup> Lily M. Levinowitz. "Informal Music Instruction As Readiness For Learning Sequence Activities." In *Readings in Music Learning Theory*, eds. Darrel L. Walters and Cynthia Crump Taggart (Chicago, IL: GIA Publications, 1989), 78.
- <sup>39</sup> Ibid., 79.
- <sup>40</sup> Ibid., 82.
- <sup>41</sup> Gordon, *Discovering Music*, 60; Gordon, *Music Education Musings*, 22; Gordon, *Possible Impossibilities*, 155.
- <sup>42</sup> Gordon, *Music Education Musings*, 22.
- <sup>43</sup> Ibid., 1.
- <sup>44</sup> Ibid., 46.
- <sup>45</sup> Gordon. *Roots of Music Learning Theory*, 19.
- <sup>46</sup> Norman, "Developing Thinking Musicians," 214.
- <sup>47</sup> Burton, "Implementing Music Learning Theory," 496.
- <sup>48</sup> Ibid.
- <sup>49</sup> Burton, "Implementing Music Learning Theory," 493.
- <sup>50</sup> Ibid., 495.
- <sup>51</sup> Gordon and Jordanoff, "Kodály and Gordon: Same and Different," 23.
- <sup>52</sup> Conway, "Good Rhythm and Intonation," 28.
- <sup>53</sup> Sheryl Lott Richardson. "Music as language: Sight playing through access to a complete musical vocabulary." *American Music Teacher* 53, no. 6 (2004): 22.
- <sup>54</sup> Dalby, "Teaching Audiation," 23.

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- <sup>55</sup> Richardson, "Music as language," 22.
- <sup>56</sup> Conway, "Good Rhythm," 27.
- <sup>57</sup> Edwin E. Gordon. "The Stakes Are Low But The Consequences Are High." *Bulletin of the Council for Research in Music Education*, no. 151 (2001): 1-10.
- <sup>58</sup> Shuler, "Music Learning Sequence," 211.
- <sup>59</sup> *Ibid.*, 211-212.
- <sup>60</sup> Norman, "Developing Thinking Musicians," 212; Shuler, "Music Learning Sequence," 205.
- <sup>61</sup> *Ibid.*, 213.
- <sup>62</sup> Norman, "Developing Thinking Musicians," 210-211.
- <sup>63</sup> Stamou, "Music Learning Theory," 276.
- <sup>64</sup> Shuler, "Music Learning Sequence," 212-213.
- <sup>65</sup> *Ibid.*
- <sup>66</sup> *Ibid.*, 212.
- <sup>67</sup> Schilling, "Music Learning," 229.
- <sup>68</sup> Shuler, "Music Learning Sequence," 213; *Ibid.*, 214.
- <sup>69</sup> Gordon, "Audiation, Imitation and Notation," 18; Shuler, "Music Learning Sequence," 215.
- <sup>70</sup> *Ibid.*, 215.
- <sup>71</sup> Stamou, "Music Learning Theory," 276.
- <sup>72</sup> Shuler, "Music Learning Sequence," 216.
- <sup>73</sup> *Ibid.*, 216-217.
- <sup>74</sup> *Ibid.*, 217.

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Chapter 8

<sup>1</sup> Gordon, *Possible Impossibilities*, 109.

<sup>2</sup> Gordon, *Learning Sequences*, 31; Gordon, Edwin. *Music Education: The Forgotten Past, Troubled Present, and Unknown Future* (Gordon Institute for Music Learning, 1997), 7.

<sup>3</sup> Gordon, *Possible Impossibilities*, 109.

<sup>4</sup> Gordon, *Learning Sequences*, 93

<sup>5</sup> Gordon, *Possible Impossibilities*, 112.

<sup>6</sup> Gordon, Edwin. *How Children Learn When They Learn Music* (Chicago, IL: GIA Publications, 2015), 77.

<sup>7</sup> Gordon, *Vectors in My Research*, 29.

<sup>8</sup> Gordon, *Buffalo Music Learning Theory*, VII.

<sup>9</sup> *Ibid.*, VIII.

<sup>10</sup> Gordon, *Buffalo*, 107; Gordon, *Music Education Musings*, 17; *Ibid.*, 48.

<sup>11</sup> Gordon, *Music Education Musings*, 34; Gordon, *Essential Preparation*, 113.

<sup>12</sup> Gordon, *Vectors in My Research*, 7.

<sup>13</sup> Gordon, *Buffalo*, VIII.

<sup>14</sup> Azzara, "Audiation," 106-107.

<sup>15</sup> *Ibid.*, 107.

<sup>16</sup> Gordon, *Possible Impossibilities*, 116.

<sup>17</sup> *Ibid.*, 116-117.

<sup>18</sup> *Ibid.*, 117.

<sup>19</sup> Gordon, *Learning Sequences*, 29-30.

<sup>20</sup> Gordon, *Possible Impossibilities*, 119.

<sup>21</sup> *Ibid.*, 121.



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- <sup>22</sup> Gordon, *Learning Sequences*, 30-31; Gordon, *Possible Impossibilities*, 122.
- <sup>23</sup> Gordon, *Learning Sequences*, 29-30; Gordon, *Possible Impossibilities*, 122.
- <sup>24</sup> Gordon, *Possible Impossibilities*, 122.
- <sup>25</sup> Gordon, *Learning Sequences*, 29-30.
- <sup>26</sup> Gordon, *Possible Impossibilities*, 123.
- <sup>27</sup> *Ibid.*, 124.
- <sup>28</sup> *Ibid.*, 125.
- <sup>29</sup> Gordon, *Music Education*, 6.
- <sup>30</sup> Gordon, *Possible Impossibilities*, 127.
- <sup>31</sup> *Ibid.*, 128.
- <sup>32</sup> *Ibid.*
- <sup>33</sup> Gordon, *Music Education Musings*, 20; Gordon, "Music Learning and Learning Theory," 63.
- <sup>34</sup> Gordon, *Music Education Musings*, 20; *Ibid.*, 47.
- <sup>35</sup> Gerhardstein, "Edwin E. Gordon," 82.
- <sup>36</sup> *Ibid.*
- <sup>37</sup> *Ibid.*, 82-83.
- <sup>38</sup> Gordon, *Corybantic Conversations*, 150; Gordon, *Buffalo Music Learning Theory*, VII; Schleuter, *A Sound Approach*, 37.
- <sup>39</sup> Gerhardstein, "Edwin E. Gordon," 64; Gordon, "Pattern Preeminence," 13.
- <sup>40</sup> Gordon, *Space Audiation*, 27.
- <sup>41</sup> *Ibid.*
- <sup>42</sup> Gordon, *Improvisation*, 31.

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<sup>43</sup> Ibid., VIII.

<sup>44</sup> Ibid., 1.

<sup>45</sup> Ibid.

<sup>46</sup> Ibid., 1-2.

<sup>47</sup> Ibid., 7.

<sup>48</sup> Ibid., 8.

<sup>49</sup> Ibid., 13.

<sup>50</sup> Ibid., VIII.

<sup>51</sup> Ibid., VII.

<sup>52</sup> Ibid., 23.

<sup>53</sup> Ibid., 25

<sup>54</sup> Ibid.

<sup>55</sup> Ibid.

<sup>56</sup> Ibid., 197.

<sup>57</sup> Ibid., 33.

<sup>58</sup> Ibid., 34.

<sup>59</sup> Ibid., 34-35.

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<sup>2</sup> Emily Brink. "A look at Edwin E. Gordon's theories." *Bulletin of the Council for Research in Music Education* (1983): 2-3.

<sup>3</sup> *Ibid.*, 3.

<sup>4</sup> Brink, "A look at Edwin E. Gordon's theories," 4-7; Richard Colwell and Frank Abrahams. "Edwin Gordon's contribution: An appraisal." *The Quarterly Journal of Music Teaching and Learning* 2, no. 1-2 (1991): 29-31.

<sup>5</sup> Gerhardstein, "Edwin E. Gordon," 248.

<sup>6</sup> Colwell and Abrahams, "Edwin Gordon's contribution," 34.

<sup>7</sup> *Ibid.*, 81-82.

<sup>8</sup> *Ibid.*, 82.

<sup>9</sup> K. Miklaszewski. "Review of *Learning sequences* in music: Skill, content, and patterns and Study guide for *Learning sequences* in music; Skill, content, and patterns. Gordon, E. E." *Chicago, IL: GIA Publications, Inc. Bulletin of the Council for Research in Music Education* 89 (1984): 85-86.

<sup>11</sup> Jordan, *Inside the Choral Rehearsal*, XV.

<sup>12</sup> Gordon, *Vectors in My Research*, 18.

<sup>13</sup> Bob Goldsborough. "Bennett Reimer, NU Music Professor, 1932-2013." *Chicagotribune.com*. September 08, 2018. Accessed April 24, 2019. <https://www.chicagotribune.com/news/ct-xpm-2013-12-12-ct-obit-bennett-reimer-met-20131212-story.html>.

<sup>14</sup> Bluestine, *The Ways Children Learn Music*, 66.

<sup>15</sup> *Ibid.*, 79.

<sup>16</sup> *Ibid.*, 83.

<sup>17</sup> *Ibid.*, 79.

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<sup>18</sup> W. Ann Stokes. "Is Edwin Gordon's learning theory a cognitive one?" *Philosophy of Music Education Review* (1996): 105.

<sup>19</sup> Ibid., 80.

<sup>22</sup> Gordon, *Roots of Music Learning Theory*, 35.

<sup>23</sup> Gordon, *Vectors in My Research*, 5.

<sup>24</sup> Gordon, *Discovering Music*, 60.

<sup>25</sup> Gordon, *Possible Impossibilities*, 104.

<sup>26</sup> Maurice Elton Byrd. "Gordon's Sequential Music Learning and Its Applicability to General Music." *The Quarterly Journal of Music Teaching and Learning* 2: 61.

<sup>27</sup> Byrd, "Gordon's Sequential Music Learning," 62.

<sup>31</sup> Paul G. Woodford. "Evaluating Edwin Gordon's music learning theory from a critical thinking perspective." *Philosophy of music education review* (1996): 83.

<sup>32</sup> Ibid., 87.

<sup>33</sup> Edwin E. Gordon. "Edwin Gordon Responds." *Philosophy of Music Education Review* 5, no. 1 (1997), 58.

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