

AUDEA

A Journal for Research and Applications of Music Learning Theory



The
Gordon Institute
for Music Learning

▪ ***In the words of Edwin E. Gordon:***

***Five keynote addresses from the first five
International Conferences on Music Learning
Theory***

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The GIML Audea

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If one audiates, then one must have audeas.

The GIML Audea is a great place to share audeas.

GIML

The Gordon Institute for Music Learning (GIML) is a nonprofit organization dedicated to advancing the research in music education pioneered by Edwin E. Gordon. The broad purpose of this Institute is to ensure that Dr. Gordon's work realizes its potential to serve as the foundation for future research and to revitalize music education for generations to come. The Institute supports research into how individuals learn music through research in teaching teachers, in teaching parents and in teaching students of all ages.

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From the President

Heather N. Shouldice



Spring is in the air! Along with warmer weather and more sunshine, this is also a season of changes for GIML.

I would like to begin by thanking Jennifer McDonel and Richard Victor, who will be stepping down as Executive Director and Assistant Executive Director at the end of the fiscal year. The organization would not be where it is today were it not for all their work over the past 15 and 6 years respectively, especially “behind the scenes.” We owe them a debt of gratitude for everything they have done to keep GIML running smoothly and successfully.

After the conclusion of a nation-wide search, I am thrilled to introduce you to GIML’s new Executive Director, Cory Micheel-Mays! He brings with him a wealth of experience and expertise that will be a tremendous asset as we move our organization forward. Cory currently serves as the executive director of the Michigan Music Education Association (MMEA), a position he has held for the past 7 years. In addition to experience teaching in a variety of K-12 music classrooms during his 7 year tenure as an active music educator, Cory is currently the chair of the Council of State Executives for the National Association for Music Education (NAfME) and the current chair of the Michigan Music Conference (MMC). Thank you to search committee members Robin Giebelhausen, Lynn Grossman, Butch Marshall, and Michael Martin for devoting their time and energy to this very important process and especially to Cindy Taggart for chairing the search. We are excited to welcome Cory to our GIML family!

In addition to securing a new Executive Director, the GIML Executive Board also been hard at work on revising our bylaws, which we hope will help the organization to run in a clearer, more consistent manner. Thank you to Cindy Taggart, Denise Guilbault, and Maria Runfola for serving on the bylaws revision committee, which crafted suggested changes to present to the board for discussion, and to all board members who participated in our monthly meetings this winter to get the bylaws updated before the transition to a new Executive Director.

Finally, we look forward to the Sixth International Conference on Music Learning Theory, which will take place August 1-3 at the Carleton of Oak Park in Chicago, IL. It’s hard to believe 10 years have gone by since our first conference! I hope to see you there and work together in our conference theme of “Continuing the Legacy of Audiation.”

Awakening the World through Audiation: Keynote address for the 1st International Conference on Music Learning Theory

Edwin E. Gordon

Research Professor, Edwin E. Gordon Archive, Thomas Cooper Library
University of South Carolina



Abstract

The 1st International Conference on Music Learning Theory in 2007 was titled *Awakening the World Through Audiation*. The keynote address was delivered by Gordon who explained the concept of audiation, which was coined as a simple footnote in one of Gordon's early books. Gordon discussed audiation and provided a brief explanation of music learning theory.

Keywords

Audiation, Aptitudes, Music Learning Theory

Introduction

Thank you all for being here. I'm overwhelmed. I feel special because not everyone who has devoted so much time to faith in a conviction has been so honored during their lifetime. I am aware of the diligent effort made by all of you to make this event possible. My gratitude cannot be expressed using words. It is felt too deeply. I'm delighted with the title of the conference. It is a reproduction of one of my recent books.

With your permission, I would like to reminisce about how the word *audiation* came into being, and my unanticipated expectation of the extent to which it has been embraced and used in numerous countries throughout the world. First, I shall begin with a little professional background, and then conclude with some earnest comments. Not to slight Sid Weiss, Philip Sklar, or Gene Krupa, all of who guided me in understanding music and life itself. More pertinently, they planted the seed of the concept of audiation.

I entered the University of Iowa as a PhD student in 1955, and left as a Professor of Music and Education in 1972. Those seventeen years spent as graduate student and professor, the latter – being more like a post-graduate education under the tutelage of Albert M. Hieronymous – represent some of the happiest years of my professional life. I found myself, and psychology of music, and serendipitously, music aptitudes found me. Little did I realize the design of audiation was rousing within me and would come to fruition at a later date. It was during my tenure at the University of Iowa that the *Musical Aptitude Profile* was developed and published. Also from those years: a monograph, *A Three-Year Longitudinal Predictive Validity Study of the Musical Aptitude Profile*; the *Iowa Tests of Music Literacy*; and *The Psychology of Music Teaching*.

Upon leaving Iowa in 1972, I became Professor of Music at the State University of New York at Buffalo, established a five-year music education curriculum, and remained there until 1979. It was then

Music Learning Theory took on its full shape, the word *audiation* was coined as a simple footnote in an early book, and I developed a lifelong association as GIA was concretized with Edward Harris and now, Alec Harris. I should also mention extensive research that I directed which established the distinction between stabilized music aptitudes and developmental music aptitudes.

I would be remiss not to attribute credit for the word *audiation* to whom it rightfully belongs: Claire Ives, a Greek and Latin scholar, who was my editor, and who passed on nearly 20 years ago. I asked Claire if she might suggest one word to consolidate my thought. She asked what it was. I said, "Music is hinged mosaic relationships linked to networks of comparative pattern structures." After the shock wore off and we tossed some words back and forth, she settled on audiation.

In 1979, I became Professor of Music at Temple University and held the Carl E. Seashore Chair for Research in Music Education there until I retired from systematic teaching in 1995. It was there the Sugarloaf Conferences were initiated amid my authoring entire books about Music Learning Theory and audiation, and my renewed interest in early childhood music and movement took place.

What is Music Learning Theory?

Before I conclude this address, there are a few thoughts I would like to mention briefly. If you would like me to expound on any of them, please seek me out during the Conference.

- Music Learning Theory is not a method. It is an explanation of how we learn music.
- To develop superb teaching techniques, emphasize difference rather than sameness. We learn what something is not, not what something is. This is accomplished rather easily and rapidly when comparisons and relationships are emphasized in instruction.
- Be sure to establish context (tonality and meter) before content (singing and chanting tonal patterns and rhythm patterns).
- Teach chord patterns and progressions linearly, not vertically. To explain voicing of a single chord pales in comparison to assisting students in audiating chord changes. Harmonic improvisation then becomes a simple step forward.
- Engage yourself and assist others in research whenever possible. A stagnant profession is intolerable for alert teachers and motivated students.

Allow me a little more time to acknowledge Carol, my wife, friend, companion, and advisor. She has been indispensable in my achievements, grooming, and winning personality.

In opening this Conference, I think you all for your good thoughts and extraordinary work. I am eager to listen to your presentations, visit poster sessions, and converse with you as time permits. Let's do a repeat performance when I'm 90.

Keynote address for the 2nd International Conference on Music Learning Theory

Edwin E. Gordon

Research Professor, Edwin E. Gordon Archive, Thomas Cooper Library
University of South Carolina



Abstract

The keynote address for the 2nd International Conference on Music Learning Theory, in 2009, began with Gordon stating that music learning theory is not a method. It is an explanation of how we learn music in a sequential way. Gordon discussed content and context and its importance in Music Learning Theory. Also, he explained that sameness and differences must be explored to where children can determine difference in music.

Keywords

Music Learning Theory, Content, Context, Sameness, Differences

Introduction

None of us have the same meaning for the same word. I am disturbed by a recent *a Music Educators Journal* article that discussed the “Gordon Method.” Let me explain to you today that there is no Gordon Method. There is only an explanation of how we learn music in a sequential way; and sequential learning is not a method. Every teacher has a method, whether it is good or bad; and a good curriculum incorporates Music Learning Theory, which has a sequential sense of continuity. Think about curriculum and method as one. To develop a sense of context they must be married together. If you re-do my research, Dorian and Mixolydian need tonic and sub-dominant rather than tonic and dominant because of our culture. Music Learning Theory is not a method standing alone. When it becomes part of a method, it becomes an admirable method and a good one. Persons associate techniques with method. The “Du de Method” is a technique that models of a method of techniques.

When *Jump Right In* was being developed, Ed Harris encouraged me to create a model of how learning sequence is taught. *Jump Right In* is “a” method, rather than “the” method for Music Learning Theory. Teachers should develop their own curriculum based on Music Learning Theory. Let me reiterate, there is “no” Gordon Method. However, there is Gordon research to enhance your teaching. When I was at the University of Iowa my Dean told me “Thinking is arguing with yourself. Put thoughts down on paper, read it later and discover how silly it is.”

What is Music Learning Theory?

I would like to explain the importance of establishing context before content. *Sol mi* is content. Teachers start here and unless context is established content takes on no meaning. Music Learning Theory tries to explain how to establish context. In traditional band programs there is no educating going on because there is not a sequential curriculum. Plus, there is not any audiating happening. They

are just pushing buttons or putting tape on a finger board. I once asked a third-rate orchestra (after a dress rehearsal) “What was the tonality of the last piece?” Fewer than 10% had any idea of the tonality they were playing.

I would like to conclude with the concept of sameness and differences. The challenge of a child is for him or her to determine the difference. This is part of sequential learning and sequential learning is a characteristic of Music Learning Theory – not methods. It is your responsibility to attract children and teach them using Music Learning Theory. Keep on using Music Learning Theory and explaining its value. Maybe someday we can make an impact. Have we made any progress? Look at this group. I am extremely grateful. Many persons die unknown. I am very fortunate and it is a great thrill and reward to see all of you. Thank you and I wish you well. Carry on with the great work.

Keynote address for the 3rd International Conference on Music Learning Theory

Edwin E. Gordon

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Abstract

The 3rd International Conference on Music Learning Theory was held in 2011. The keynote addressed research, which Gordon stated is never complete. He also focused on audiation and music learning theory research from the past and offered suggestions for future research.

Keywords

Audiation, Music Learning Theory, Research, Skill Learning Theory, Tonal Patterns, Rhythm Patterns, Rhythm syllables

Introduction

Good morning. Welcome Madams President, Conference Director and staff, colleagues, and friends. It gives me great pleasure to address you once again, particularly considering the theme of the Conference, *Audiation for a Lifetime*. I am aware of the commitment and integrity of those who have made this gathering possible. Thank you. You have my enduring gratitude.

As I stand before you a recurring thought permeates my mind. Specifically, you make clear the realization Music Learning Theory and Audiation no longer represent abstract philosophies. Indeed, they have been established as secure and indigenous components of music education. Music Learning Theory and Audiation are here to stay in spite of the fact your great spirits often have encountered implacable opposition from those unable to open their minds. The challenge of expanding their musicianship spawns a rupture in the fabric of civility.

More and more music educators around the world, however, are becoming part of the growing legions who understand the concepts of and want to be associated with advancement of music education as a discipline as well as a profession, early childhood music education notwithstanding. A great society is not merely one that produces many great artists but rather, how many persons understand and give meaning to what great artists perform. There are enough superb performers. What society needs is musically intelligent audiences. Without your belief in my research and commitment to learning and teaching music in accord with individual musical needs and differences among children and students of all ages, extant relevant research would still be considered by the profession little more than just another fad in music education. Alone, I could not have made what were personal beliefs objective realities. I am grateful to you all.

For Audiation and Music Learning Theory to continue to be practicable and command esteem, however, they cannot rest solely on research of the past. Though there is only one truth, there are many

vacillating paths to truth. That is, truth is not forever. Research is never complete, and depending upon environmental influences and students' attitudes and capabilities, results can change from year to year if not moment to moment. That is the nature of nature. What I want to stress and what is to be my primary message is that elegant teaching alone is not sufficient. You need to engage in systematic longitudinal research activity focusing on a specific topic to continue to support your expertise and insights in advancing the music learning process. Much still needs to be investigated, but non-continuous occasional investigations are not sufficient.

As I approach my 84th birthday, I can no longer conduct research of the type that has given foundations to Audiation and Music Learning Theory. I pass that responsibility and accountability on to you. I emphatically tell you that elaborate knowledge of statistics and inferential tests of significance are not necessities for engaging in quality research. In general, zero-order correlations should be all that might be essential. Empirical research points to the future. All that is really obligatory is your being capable teacher-researcher-observers. My simple unsolicited advice is to dedicate your professional life to systematically following your curiosity.

Future Research in Music Education

I will take the remaining time of my presentation to offer suggestions pertaining to examples of specific research that might be undertaken to sustain and enhance the continuing vitality of Audiation and Music Learning Theory. I hope you will find some ideas appealing and the appropriate time to bring them to fruition. Unless that proves to be the case, Audiation and Music Learning Theory likely will become stagnant. I trust you as individuals and research teams will give serious thought to what I will be saying.

As a young professor, I initially became interested in skill learning theory and thus, spent an inordinate amount of time on researching its sequential levels. It was only later that research results made obvious the necessity to also study sequential levels of tonal learning sequence and rhythm learning sequence. There were so many other demands on my time associated with design and validation of music aptitude and achievement tests, writings books, manuals, and articles, teaching at the University Laboratory Schools and undergraduate and graduate courses, and directing doctoral dissertations and masters theses, that I did not do thorough investigations of the latter two sequences. That is, some data were extrapolated cross-sectionally. Nonetheless, tonal pattern and rhythm pattern audiation difficulty levels had already been well established. What seems in order is longitudinal comprehensive corroborating or contradictory research pertaining to tonal learning sequence and rhythm learning sequence to parallel that of skill learning sequence. It will take time but will prove to be well worth the effort.

Next to logically follow would be methodical studies of how best to combine skill learning sequence with tonal learning sequence and skill learning sequence with rhythm learning sequence. What has been established seems to work well but nevertheless, examining the research once or more again would probably reveal heretofore undiscovered compelling findings that would impact not only on stepwise movement but certainly also on bridging levels of learning.

In skill learning sequence, reading music notation is taught before writing music notation though there is no specific research to substantiate the practice. Some professionals, particularly those who develop computer programs, believe the reverse is true. A series of brief experiments could offer objective data on the debate. Also, in tandem with that disagreement, there are music teachers who disregard partial synthesis and move directly from verbal association to symbolic understanding. All of my objective research indicates that is a serious mistake. No doubt, research other than my own bearing

on the subject could be a convincing factor one way or the other. The possibility of colleagues' conclusions excites me.

With regard to tonal and rhythm pattern difficulty levels, I have reported on various occasions the difficulty levels relate to audiation, not vocal or instrumental performance. The limited unpublished research I conducted with singing demonstrates a correlation of approximately .50 between audiation and vocal performance. But that was accomplished with only small samples of students in restricted chronological ages and geographical locations. Much more should and needs to be investigated in terms of relationship between and causation of the two factors.

As you know, there are music educators who insist tonal patterns and rhythm patterns are best not separated in pedagogical practice. That is, they believe the two should be combined into melodic patterns and performed with tonal solfege. That is in direct opposition to Music Learning Theory. Unfortunately, there is not sufficient research to shed light on the matter, only opinions prevail. Well designed investigations would go a long way in shedding light on the dilemma.

There are harmonic patterns and progressions. I have engaged in a great deal of research to determine difficulty levels of harmonic patterns. Results are published in the test manual for the *Harmonic Improvisation Readiness Record and Rhythm Improvisation Readiness Record*. To complete the research in a practicable manner, only one voicing of chords was possible. It is conceivable if the voicing were different in a replicated study, the results might be different. Whether that is or is not the case engenders enticing speculations. I wish I had the wherewithal to undertake such a study myself.

Now, to some tangential matters. First, whether there is a disconnect or something profound not yet understood. The tonic-dominant relationship is fundamental in learning tonal patterns but the tonic-subdominant relationship is fundamental in learning harmonic patterns. Though teaching strategies reflect that difference, perhaps adaptations embedded in and derived from research results might be effectual for the learning process. Does that possibility inspire your curiosity?

The more I have guided young children in music, the more it becomes apparent they respond more quickly and with better understanding to rhythm patterns in unusual paired and unpaired meters than to rhythm patterns in usual triple and usual combined meters. Extended research may suggest the established sequence of teaching meters should be reconsidered for preschool as well as school age students.

To create musically requires less erudition than to improvise musically. Nevertheless, the question remains whether it would be prudent for students to begin to learn to improvise with verbal association (using syllables) than without verbal association. Initial research data was clear. Not using syllables to begin with was the prudent approach. But with a hiatus of some fifty years, perchance that is no longer the case. It is worth making an effort to determine the better sequence.

We often hear professionals combine the words "music" and "movement." In my thinking, the important interactive concomitant of breathing is for all intent and purposes lost. That is unacceptable. Breathing is movement and movement is music. That could easily be a constituent part of studying the major effort motions that Rudolf von Laban postulated. Both ideas should, however, apply specifically to music education. It is possible time, space, weight, and flow are not equally important in acquiring audiation skill or that music educators' interpretation of Laban's philosophy is misappropriated. The potential of improving music learning by emphasizing space over time and flow over weight is enormous. Time and weight may be found in research to be relatively superfluous.

Although the final version of beat function rhythm syllables is well accepted by most musicians, there has been persistent criticism, predominantly by percussionists, that the syllable used for microbeats ("de") is also used for divisions of microbeats. Thus, after considerable investigations with elementary

school students, I devised other syllables for divisions of divisions of microbeats. Rather than chanting “du ta de ta de ta de ta” in usual duple meter, the alternative is “du ah le ah de ah le ah.” For usual triple meter, rather than chanting “du ta de ta da ta de ta di ta de ta,” the alternative is “du ah le ah da ah le ah di ah le ah.” Both sets work well for me in my teaching but there is no research that indicates one set is more efficacious than the other. It would be well to gather some objective evidence on the matter.

Applications

An issue less related to research and more to creativity might be worth mentioning. As I observe teaching, I see many of the same effective techniques used over and over again by the same and different teachers. Perhaps that is a reason some persons are prone to believe music learning theory is a method. When we use our own techniques rather than borrowed ones, we teach better and with more self confidence. Give thought to developing suitable novel practical applications of music learning theory.

Finally, if you will indulge me a few more moments, I would like to turn my attention away from music learning theory. As you know, my initial interest in research in the psychology of music was the nature and measurement of music aptitudes. It continues to be a compelling force in my thoughts but because of my age among other restraints, I am unable to research what I consider a fascinating possibility. Perhaps bone conduction rather than air waves might be the more valid procedure for measuring music aptitudes. The correlation between the two methods, I believe, would prove to have enormous implications. Also, I wonder if there would be noteworthy similarities and differences in the correlations when comparing tonal, rhythm, and expressive aptitudes. Might any one of you like to pursue the idea?

Closing Remarks

In closing, I would like to mention my two most recent books that may be of assistance to you in guiding the research of students: *Possible Impossibilities in Undergraduate Music Education* and *Music Education Doctoral Study for the 21st Century*. Both are published by GIA.

Thank you for your patience and attention. I hope my thoughts entice you to engage in research along with your teaching. I look forward to our meeting again in two years. Until then I wish you happiness and good health to pursue it.

Cause and Symptoms: Keynote address for the 4th International Conference on Music Learning Theory



Edwin E. Gordon

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Abstract

The keynote address for the 4th International Conference on Music Learning Theory, in 2011, detailed human development, particularly brain development, in early childhood. Gordon discussed what he learned about the five music vocabularies during his research on musical aptitude. He explained the significance of music listening on audiation and how to put research into practice.

Keywords

Listening, Early Childhood, Brain, Vocabulary, Context, Content, Audiation

Introduction

Good morning. I am pleased to be here again. I anticipate with pleasure opportunities to visit with you today. Thanks to you, music learning theory and audiation have come a long, long way.

A bit of history as introduction. One of my fellowship responsibilities while working toward a PhD in 1950s at University of Iowa was to examine existing published music aptitude tests. Looming concerns about validity information existed. In fact, there were no reports of validity for most, reliabilities notwithstanding. Also, all discussion about nature of music aptitude harkened back to Carl E. Seashore's dubious assumptions introduced at beginning of the century. Related literature offered meager assistance. Thus, I intuited it would be worthwhile to study newborn and young children to acquire insight about music aptitude. Because time spent was rewarding, I decided to pursue the same procedure to understand music achievement. Though it took many years, I was not disappointed. I will share with you what I learned as observer, teacher, and researcher then and since then.

What I Learned Researching Musical Aptitude

Most of you know about the five music vocabularies paralleling language vocabularies. I will take a moment to review them. In sequential order of development, 1) listening, 2) singing, moving, and rhythm chanting, 3) audiation and improvisation, 4) reading music notation, 5) writing music notation. I will emphasize listening today, which is fundamental. Without development of a music listening vocabulary, particularly early in life, acquisition of residual vocabularies and, thus, music understanding, is problematic. It is primary cause of musical ignorance spawning many undesirable symptoms common in children and adults that become familiar to music teachers in elementary, middle, and secondary schools when they attempt formal music instruction. Regrettably, a large percentage of

students has become satisfied with hearing simplified, repetitive fragmentations of otherwise structured music.

Two compelling ages in human development occur in early childhood. The critical age, is from birth, if not before, to eighteen months. The sensitive age is an extension of the critical age, ending at about five years old. More is learned in the first eighteen months than any other eighteen month period of life. Unless a music listening vocabulary is acquired during the critical months, it becomes less and less possible to learn to listen with understanding as time goes on. That is, without guided experiences, action potential of specialized sensory receptor music listening cells gradually becomes dormant. That is not to say hearing will be impaired. It is listening that will be aggrieved. Hearing is simply perceiving sound. Listening is understanding sound, that is, ability to audiate.

There are approximately 100 million neurons and 1,000 billion synapses in the human brain. Before age three, given a natural environment, a child's brain makes 700 synapses every second. It is synaptic connections among brain cells that are vital and significant. Unless a multitude of links are made within and between neurons, potential for learning becomes limited for newborn and preschool children, and exponentially as they grow older. Dormant brain cells dedicated to one sense of perception cease to exist or are directed to making associations with alternative types of sensory perception.

An infant's brain capacity is 25% of an adult's. It grows quickly to 70% by age one, 85% by age three, and 90% by age five. Perhaps that information was presented too quickly, so I will do some calculations for you. From birth to age one, only one year, brain capacity increases 45%. By comparison, during the next two years, from ages one to three, brain capacity increases only 15%. And, from ages three to five, again two years, brain capacity increases only 5%. Bear in mind plight of kindergarten and elementary school music teachers who must confront that situation. Because a firm foundation for music education has passed after age five, it is understandable why obligatory performances and note naming rather than education become paramount.

Consider the following: It is estimated there have been 30,000 languages spoken in the world. Nearly 300 were native to peoples of North America and South America. Presently, more or less than 6,000 remain. Of those, only 200 are written. Why? Written language creates grammar. As a result, creativity in speech is inhibited. Ponder the corollary with music, music notation, and music theory. Improvisation skills are thwarted when students initially are taught to read and name notes. Music notation in conjunction with music theory produce music grammar.

That is unfortunate, because when improvisation is taught first, learning to read music notation is simplified. In fact, given correct sequence, formal instruction in music reading may prove unnecessary. It simply happens, because students are able to bring meaning to music notation through audiation rather than needing to struggle to take meaning from music notation. Moreover, a source of poor rhythm is inherent in beleaguered learning to read music notation. When a wrong pitch is produced and performance is interrupted while locating the correct one, improper rhythm and tempo are magnified.

A second but more important question is why did so many languages disappear? Most phylogenetic linguists agree a language is no further from extinction than just one skipped generation of adults not acculturating newborn and preschool children to that language. The cultured music listening vocabulary is similarly fragile. Remedies are not possible. Only compensatory formal instruction is feasible, and it leaves much to be desired.

You might be wondering what a music listening vocabulary is and how it is developed. Both context and content are integral parts of a music listening vocabulary. A sense of music context is acquired by listening to short tunes and rhythm chants in a variety of tonalities and meters. A multiplicity of familiar and unfamiliar tonal patterns and rhythm patterns represent music content. They

are the words of music. All are performed by an adult without words using labial syllables. The compelling issue is children hear an abundance of difference while not ignoring sameness. The value of opportunities to recognize and identify dissimilarities as well as similarities in context and content, which stimulates neurological interaction, cannot be overestimated.

Thus, singing in only major tonality and chanting in only duple meter is not sufficient. Brief tunes in harmonic minor, Dorian, and Mixolydian are necessarily performed for contrasts to be made. Rhythm chants beyond duple, triple, and combined meters are also requisite. As time goes on, tunes in Phrygian, Lydian, Aeolian, and Locrian tonalities, and rhythm chants in unusual meters contribute immeasurably to expanding a music listening vocabulary. So called atonal music, which is actually multitonal and multikeyal or what Schoenberg called pantonal, is not to be disregarded. To some extent, all music is tonal.

It may be assumed a child's music vocabulary is developed automatically because a plethora of music is available through media. That is an erroneous supposition. Would a reasonable adult believe a language listening vocabulary can be sufficiently developed by having babies and older children hear dialogues on only television and recordings? Of course not. Expectation of an infant relating to Shakespeare comedy or tragedy makes no more sense than expecting it to relate to concertos or symphonies. Babies need to hear words and short phrases systematically spoken to them with visual and oral expressiveness for a year or so on a one to one basis. In addition, range of words needs to be simple and well chosen in terms of familiarity and difficulty to serve the important task of language development.

Audiation plays a significant role in music listening. It provides not only bases for listening to and comprehending music performed by others, it provides wherewithal to listen to oneself when making music. To play with good intonation and appropriate rhythm, a performer listens through audiation to what is to be performed and then compares it with what is physically performed. Necessary adjustments are made. Unfortunately, a high proportion of student and adult performers, not excluding professionals, are bereft of a music listening vocabulary. They occupy their minds with note reading and counting as alternatives to listening. Misguided intonation, tone quality, and inartistic interpretation are common outcomes.

As a graduate student, I enrolled in several research courses. An assignment in one was to design and report results garnered from an original questionnaire. One student asked music teachers why they wanted to become music educators. He found the overwhelming reason was they enjoyed performing. I was not surprised and gave the conclusion little thought. Nonetheless, I unconsciously kept thinking about the investigation without knowing why. Now, some 50 years hence, I think I know why. When teachers themselves were students, they continually performed in elementary though secondary school. Moreover, as students in higher education, performance was emphasized. In a sense, they were trained predominantly as performers in contrast to being educated as musicians. Thus, they logically carried on the tradition with their students when they became music teachers.

Because accuracy in performance rather than sequential education prevailed as the primary goal, teachers gave little thought to developing students' music listening vocabulary. In fact, development of a music listening vocabulary was skipped and teachers began instruction with the second music vocabulary, vocal and instrumental performance. Of course, performance indirectly embraces some listening, but not the type heretofore described. By guidance and instruction in listening being overlooked, students had to rely on memorization without comprehensive understanding of context as well as other important foundational characteristics of music. Surprisingly, it has been discovered a high proportion of performers cannot reproduce the resting tone of well rehearsed music, nor can they recognize its tonality or name its meter. They necessarily focus on notation and technique.

There is more. In addition to development of a music listening vocabulary being disregarded, the third music vocabulary, audiation and improvisation, also is neglected. Without hesitation, students are moved rapidly to reading primarily instrumental music notation. Obviously, many music teachers consider the third vocabulary as inconsequential as the first for developing performance skills. They are mistaken. Possibility of developing the fourth music vocabulary, reading music notation for meaning without deliberate thought, is doubtful without proper readiness.

It is with mature reading of music notation, audiation is brought to a printed page. Theory can be only taken from symbols. Thus, students practice, practice, and practice more until what they are to perform is memorized. Unfortunately, what is memorized without essence is soon forgotten and any acquired knowledge is not generalized. Think of it, most students, young and old, go through school being exposed to only two music vocabularies. As adults, they lose even a paucity of interest in music they might have had. And, perhaps most egregious, the same regimen is inherited by children of parents and teachers. Yes, students might have been required to take a class in music theory, but its value for embracing music listening, audiation, and improvisation, is uncertain.

Putting Research into Practice

Why I am talking about all of this? I believe I have some suggestions that might ameliorate the situation. If solutions are forthcoming, it will be because of you, practicing music teachers, not college and universities professors or personnel of professional organizations. They seem not to recognize the problem or are of the opinion to rectify it is insurmountable. Administrators are aware music is considered a frill by most parents and it promises little in vocational pursuits. Thus, they suggest courses in music advocacy and entrepreneurship be offered in colleges and universities. Amazingly, what is not realized is if music is taught appropriately, propaganda is unnecessary.

Most important, whatever level of school you teach, vocal or instrumental, you may assume a vast majority of your students lack a music listening vocabulary. Compensation for that liability may be undertaken with little sacrifice and substantial gain. True, performance is an integral part of music education. That cannot be denied. Parents and administrators expect it and students of all ages anticipate it. If a bit of time is taken from performance and devoted to listening, however, students' understanding of music and quality of performance increase. Five or ten minutes might be allotted at the beginning of each class or rehearsal for a teacher or music director to sing and model movement for students.

It would be prudent to improvise a brief song in the tonality and meter of the first piece of music to be performed. Value of establishing tonal and rhythm contexts cannot be overestimated. Further, a few select tonal patterns may be sung and rhythm patterns chanted for students. If they desire, students may be encouraged to repeat in ensemble what the teacher performed. Solos offer great opportunity for students' individual musical differences to be taken into account.

Two new books of songs and rhythm chants may be used to supplement the first and third music vocabularies. Both are published by GIA. *Music Listening Experiences for Newborn and Young Children* includes notation and recordings of brief tunes and rhythm chants in many tonalities and meters. *Tune/Rhythm Chant Fusions* combines tunes and rhythm chants concisely in songs, also in a variety of tonalities and meters. Merging of tune/rhythm chants accentuates comparison of difference with sameness.

Two related matters might be mentioned before closing. Listening is indomitable in providing readiness for performance. As students are prepared to perform, they best move their body while doing so. Free and relaxed continuous movement in space coordinated with deep breathing makes components

of rhythm comprehensible. That way maintaining consistent tempo and unswerving meter are more readily understood. Rhythm activity is in the body, whereas rhythm theory is in the brain. Unless the body informs the brain, the brain can only wander in pursuit of accuracy.

Next, if not already doing so, I urge you, teachers, vocal and instrumental in elementary through secondary school, and professors, to guide newborn and young children in attaining a fertile music listening vocabulary. The sooner young children are exposed to adequate informal and formal music guidance, particularly during critical and sensitive ages, the more educated they will become as they pass through the grades. Need for compensatory instruction will become a thing of the past. Not only will students be beneficiaries, teachers' ease in teaching and learning becomes pleasurable and, thus, quality of performance ensembles is amplified.

I wish you all well and a happy and productive new year of teaching. Thank you.

Music Learning Theory and Methods: Keynote address for the 5th International Conference on Music Learning Theory

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Abstract

The last keynote address, for the 5th International Conference on Music Learning Theory in 2015, was written by Edwin Gordon and read by Maria Runfola to those in attendance at the conference. This address was titled *Music Learning Theory and Methods* and once again explained that music learning theory is not a method. He stated that it is a sequential continuity of music skills. Specifically, he explained music learning theory as “the foundation of sequential skills for creating comprehensive and unified music curriculums.” He discussed in detail the five complementary sequential skills vocabularies in music, which are listening, performance, audiation and improvisation, reading, and writing. He reflected on his teaching early childhood music and stated that it became apparent to him that he was no longer learning to teach, but rather teaching to learn. At the conclusion of the keynote address, Gordon reiterated that music learning theory is not a method.

Keywords

Music Learning Theory, Music Skills, Sequential Skill Structure, Music Listening, Audiation, Performance, Improvisation, Chord Patterns, Tonal Patterns, Rhythm Patterns

Introduction

Thank you for inviting me to deliver the keynote address for the fifth Gordon Institute for Music Learning International Conference. I anticipated 2013 keynote would be my last. Needless to say I am delighted to have prepared this address for you. I will make a relatively brief address so there will be time for questions at the conclusion if you so desire. I am an incorrigible professor.

Much of what I will be speaking about I said in a keynote address a few years ago. For whatever the reason or reasons, it seems I failed to make my point. That is unfortunate because I sense a serious issue that must be addressed once again. While I believe you understand my consternation, the majority of mainstream music educators in this country and abroad do not. I need your assistance to help educate those who do not or cannot understand the substance of my coming message. Except for GIML colleagues, my earlier words have fallen mainly on deaf ears.

Music Learning Theory is *not* a Method

You are asking what is the issue I have in mind. Simply stated, contrary to what uninformed persons think, music learning theory is not a method. I repeat: music learning theory is not a method. A method primarily is consideration of content to be taught and material used. Music learning theory is

more discerning. It is an outline of interrelatedness and sequential continuity of music skills. Music skills, the underpinning of content to be taught and material used, is the substance of music learning theory. In music learning theory, achievement of one music skill is preparation in terms of readiness for learning the next sequential higher music skill.

In the past I simply said music learning theory is an explanation of how we learn music. I offer the following expanded explanation as an alternative in hope it will have a more favorable lasting effect. Specifically, music learning theory is the foundation of sequential skills for creating comprehensive and unified music curriculums. It, itself, is not a curriculum or a method. It is an objective explanation of how sequential skills in subjective music curriculums may be designed for students of all ages enrolled in classroom and instrumental music instruction. I shall be elaborating on the key word sequential.

I will begin with an analogy. There are five complementary sequential skill vocabularies in language and music. In language in sequential order they are 1) listening, 2) speaking, 3) thinking, 4) reading, and 5) writing. In music in sequential order they are 1) listening, 2) performance, 3) audiation and improvisation, 4) reading, and 5) writing. Each skill provides readiness for learning the next skill. Listening comes first. It is the fundamental skill. Without a firm listening vocabulary, the remaining four skill vocabularies will have marginal development.

Consider the following. Throughout history humans have spoken more than 30,000 languages. Approximately only 6,000 currently exist. Linguists agree the reason is a language is no further from extinction than only one, just one, generation of adults not giving newborn and young children opportunity to listen to the language. Interestingly, only 200 of the current languages are scripted. Music notation like written grammar is an intrusion on creative thought.

Unlike language curriculums, the majority of music curriculums from early childhood through senior high school have little foundation in terms of sequential skill structure. What is taught is haphazard in the moment. Consequences are enormous. Let your mind wander for a few moments and imagine the situation if children who never listened to a language were sent to kindergarten and expected to communicate and use the language for educational development. Unthinkable? Yet, that is normally the case with classroom and instrumental music instruction. Most children attend school without a substantial music skill listening vocabulary. Nonetheless, they are urged to sing songs in classrooms. That is like struggling to speak without knowing what you are trying to say. There is little difference between the way these children attempt to sing and how they sing as adults. Learning is naught because students are not guided in acquiring a music listening skill vocabulary as a first step in early music education.

Children from homes with professional parents hear approximately twenty million more words before they reach the age of five than children from homes of lesser socio-economic conditions. They retain a language advantage throughout life. Think of possible extraordinary results if all children from birth to five heard tonal and rhythm patterns in various tonalities and meters sung and chanted by parents at home. Revision of school music programs would be a dire necessity. Education would supersede entertainment.

Most young school children are entertained, not educated, in music classes. Those who elect music instruction at a later age are exposed to music literature but still are not educated. Only precious few are recipients of music education. Thus, like most restaurant servers, adults cannot, for example, sing "Happy Birthday" with any degree of accuracy. They are impervious to location of a resting tone.

How Music Learning Theory Impacts the Music Education Curriculum

Music learning theory is not designed to atone for these misgivings. Rather, it contends to avoid these deplorable circumstances. An ideal music curriculum essentially embraces sequential skill structure as a foundation. To accomplish this, the first skill vocabulary, music listening, is attended to by parents and teachers before all else. Unfortunately, it is not. In fact, in most cases, systematic informal guidance in listening to music is ignored.

The critical age for learning is from birth, if not before, to 18 months. The sensitive age is from 18 months to five years old. An infant learns more during the critical age than in any other similar period of time throughout life. Although it may be acquired at any age, it is most advantageous for a music listening skill vocabulary to be instilled in early childhood. The older students are, the less they respond to attaining a music listening skill vocabulary. Vocal and instrumental teachers who understand music learning theory find time to teach preschool groups at least once a week. The effects on audiation of students in performing groups in upper grades is immense.

There is a fallacy hearing media music establishes a music listening skill vocabulary. Not true, it is not sufficient. A reasonable parent would not believe a child's language listening skill vocabulary can be established by listening to recordings. A child must be spoken to one on one. Similarly, children's music skill listening vocabulary must be developed by an older person singing and chanting to them one on one. Hearing and listening are different. Hearing is perception whereas listening is conception.

The second sequential music skill vocabulary is performance. As explained, it is imprudently treated as a first music skill vocabulary in the majority of schools. It takes only one observation of a music presentation in one of these elementary school classrooms to recognize deleterious outcomes. In distress, students learn to only mouth words and at best accompany sounds of a piano.

What am I thinking in regard to a music performance skill vocabulary? What I will explain are learning principles that may be used with any method. They do not constitute a method though they, themselves, may be thought of techniques complementing music learning theory.

Singing and rhythm chanting are the speaking of music. The performance skill vocabulary is introduced using rhythm patterns and tonal patterns, not individual notes or scales. Patterns are the words of music. Time value names and pitch letter names, the alphabets of music, have as little relevance for audiation as the language alphabet has for conceptualizing communication. Children perform familiar and unfamiliar rhythm patterns in familiar meters and tonal patterns in familiar tonalities first using neutral syllables and later solfege. Meters and tonalities become familiar as students phase through development of the listening skill vocabulary. In the second skill vocabulary they perform rhythm chants and tunes without words.

To support students' audiation, a teacher establishes meter and tempo vocally before rhythm patterns and rhythm chants are performed. Likewise, tonality, keyality, and beginning pitch are established vocally before tonal patterns and tunes are performed. A teacher is constantly aware of and adapts instruction to individual musical differences among students in terms of their music aptitudes. Singing and chanting are improved when accompanied by free flowing, continuous spatial movement and deep breathing.

Learning of sequential skills is enhanced when audiation of differences among meters, tonalities, and patterns is emphasized soon after internalization of duple and triple meters and major and minor tonalities. Unusual meters and Dorian and Mixolydian tonalities are contrasted with customary meters and tonalities. For students to be over exposed to sameness hobbles and impairs their understanding of difference.

Improvisation is the third sequential music skill vocabulary. It competes in importance with the first music skill vocabulary, listening. Ironically, both are typically skipped in common practice school music education. Listening is sidestepped and, nonetheless, students are expected to perform musically. Then, improvisation is neglected and students dutifully are introduced to music notation. Think of the calamity if students were deprived not only of a language skill listening vocabulary but also were given no opportunity to think and ask and answer questions apart from the printed page. With egregious consequences, emblematic music education follows a parallel path of omissions.

Significance of music improvisation to overall achievement in music education cannot be overestimated. As an outcome of listening to various types of music and performing rhythm patterns and tonal patterns, students are ready to audiate and perform unpretentious chord patterns. Chord patterns include three chords. For example, 1) tonic-dominant-tonic; 2) tonic-subdominant-tonic; and 3) supertonic-dominant-tonic. The class sings three-note triads. Individual students take turns improvising a melody implied by chord patterns that combine familiar and unfamiliar rhythm patterns and tonal patterns into melodic patterns. Chord patterns are changed and soon united into harmonic progressions. Harmonic progressions link two or more chord patterns.

Chord patterns give students stability and direction for participating in improvisational pursuits. Students are able to audiate what they intend to perform as they are performing. Self respect in knowing what is accomplished and communicating inventive melodies with peers is contagious. With pride, students may express themselves without artificial external direction. They are adept in music similar to the degree they are with language. Is all this really possible? Yes, with a music curriculum given proper sequential skill structure. With reasonable effort, sequential skill structure may be applied to existing music curriculums that indeed lack sequential structure.

Ability to improvise constitutes readiness to create music and to read music notation. You may find it surprising that I suggest improvisation precede creativity. Rather than going into a lengthy diatribe, I ask you instead to think about the number of teachers who claim to teach creativity but they, themselves, do not or cannot improvise. Now think about the comfortable suave creativity that emanates by those who dare to improvise.

To some extent I have preempted my discussion of music notation, the substance of the fourth and fifth music skill vocabularies, reading and writing music notation. That occurred when I said improvisation is preparation for learning to read music notation. It is grounding for learning also to notate music. The significant detail, which can be easily missed, is reading is introduced after improvisation, not before. It would be sensational if neighborhood piano teachers acknowledged validity of that assertion.

In digression for a few moments, shift your mind 180 degrees and envision the following scenario. Imagine you are introducing music notation to students. They are asked to perform a rhythm pattern. You show them notation of that rhythm pattern and tell them that is what you performed looks like. All they need to know is measure signatures $2/4$ indicate duple meter and $6/8$ triple meter. Then you follow through using a variety of rhythm patterns.

Next, they perform a tonal pattern. The teacher discusses do signatures and placement of do on the staff. Students see what the sound of the tonal pattern looks like in music notation. More tonal patterns are performed and shown in major and minor tonalities. Using similar procedures, students perform and are shown melodic patterns. Without formal instruction, they generalize how rhythm patterns and tonal patterns are combined into melodic patterns in music notation. Students' anticipation of creating music can be hardly contained.

Preferably, the skill reading vocabulary and instrumental music instruction are undertaken concurrently. As a result of instruction in the first three sequential music skill vocabularies, students, are quickly able to interpret music notation. Thus, a teacher has luxury of discussing musicianship and

instrumental techniques without being encumbered by explaining basics of music notation. Fingerings, positions, and related matters may be approached without detailed reading obstructions. Most captivating is there is time to begin instrumental improvisation.

It is worth mentioning improvisation cannot be taught. Students are rightly offered sequential music skill readiness instruction so they can teach themselves to improvise by transferring to the fourth sequential skill vocabulary what they learned in the third.

There is not much to say about the fifth sequential music skill vocabulary other than with a command of reading skill, writing is a natural consequence. Many teachers believe teaching writing of music notation is difficult and unnecessary. The reason it is most students are bereft of readiness for learning to notate what they audiate. If, for no other reason, learning to write is necessary because it improves reading. It is astonishing many fluent readers are at a loss when asked to notate music. Their efforts are almost illegible.

I do not expect and would not be astonished if some of you are wondering about when music theory is taught. If indeed that is the case, I can respond earnestly by saying as with language where instruction in grammar is taught only after students are well versed in speaking and thinking, music theory, if need be, is taught only after students can audiate and perform musically. Ironically, one of Lowell Mason's cardinal principles hundreds of years ago was to teach sound before sight. Why has it not been heeded? Because it is not readily understood music theory rightfully explains to students what they already know, not what they need to know.

Truth be known, there is no theory of music. What is called common practice music theory is simply an explanation of music notation. Historically, the idea of music theory became an anomaly long after audiation was a viable mainstay. As practicing physicists are aware of need for theoretical physicists, practicing musicians should be mindful of need for theoretical musicians. In fact, it would be a welcome modification in colleges and universities if music theorists were replaced by theoretical musicians.

I am aware many traditionally educated music teachers believe they do not have necessary wherewithal to embrace all I have described. Perish the thought. After teaching infants a few weeks to three years old for more than ten years, it became apparent to me I honed my skills by teaching. I no longer learned to teach but rather I taught to learn. Everyone can too. It was a revitalizing and exhilarating experience.

Conclusion

You have heard the exposition and development of my keynote. Here is the recapitulation. *MUSIC LEARNING THEORY IS NOT A METHOD!* The issue is simple: learning versus teaching. When learning sequence activities are coordinated with and give structure to teachers' preferences for classroom and performance activities might music learning theory be considered part of a totality of method.

With your forbearance I want to mention two new books of mine published this year. Both support and are in accord with much of what you have listened to me say today. I trust you will find them interesting. One is *Structuring Comprehensive and Unified Sequential Music Curriculums* and the other is *Space Audiation*. Also, an updated and reorganized edition of *Learning Sequences in Music: A Contemporary Music Learning Theory* will be available in the near future. Ironically, the book is most talked about in the profession but least read.

If Carol were here she would join me in thanking you all - particularly Board members past, present, and future – for your generous and resolute support of GIML. In my fondest dreams I never expected such integrity and devotion. You have made it all worthwhile. I wish you good health and a productive new school year.

Edwin E. Gordon 1927 – 2015

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