

Assessment of the Musical Aptitude of the Future Teachers: Applying the Gordon AMMA Test

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Abstract. The study program of the Faculty of Pedagogy "St. Kliment Ohridski" UKIM in Skopje, R. Macedonia is to develop multiple competencies and skills of future teachers for various areas - natural, social sciences, sport and the arts. This paper refers to subject music education, which, along with pedagogical knowledge, requires musical predispositions. The survey was conducted at the beginning of academic 2017/2018 to examine the musical aptitude of students who begin studying the music courses (N = 50). The main instrument was the standardized Advanced Measures of Music Audiation (AMMA) test by Edwin Gordon as the most successful of its kind on a world scale. In his opinion, musical abilities are a measure of student's potential (inner possibility), and the achievements in music are a measure of what has been learned (outer reality). The test is an audio recording consisting of 30 questions each of which contains a pair of short musical examples and requires the respondent to recognize tonal and rhythmic elements. The whole procedure lasts approximately 15 minutes, it is easy to implement and has a solid scientific base and a high level of standardization. According to the answers, 55.4% of the respondents correctly identified the identical music phrases, 36.2% the rhythmic, and 29% the tonal phrases, i.e., the total distribution showed that 40.9% of students have musical potential. The results indicate exact focusing on the weaknesses in terms of rhythm and melody for effective music teaching with all the foreseen program activities - singing, playing instruments, listening to music. This type of research on musical aptitude is in the function of improving the specific competences of students through targeted pedagogical activities.

Keywords: Musical aptitude, Gordon test AMMA, future teachers, music education

Introduction

In the process of education that takes place in schools, one of the key characters is the teacher. With a professional and creative approach to teaching, he/she should build the foundations for the further education of students, to motivate them to learn and to be interested in different areas.

Due to this enormous and complex responsibility, the teacher's education is of the utmost importance and also his/hers orientation in the development of knowledge and skills in a systematic way (Gifford, Edward). Hence, the purpose of the study programs in educational faculties is to develop predispositions and skills of future teachers for each subject area separately - natural and social sciences, sport and the arts. In this way, they are supposed to be prepared and capable of transferring all these acquired knowledge, and to possess multiple competences.

For the past twenty years, different definitions have been formulated regarding the future teacher's competencies given that they include cognitive, functional, personal and ethical values of the person himself (Hilden, 2010, Nikolic 2015). They are mainly profiled through three important dimensions of teachers' competencies: professional, pedagogical-didactic-methodical and working dimension (according to William Glazer 2005).

To study the subject of music education, besides all these, specific competences are required (such as performing, music perception, musical creativity) that relate to the musical aptitudes and the potential for achievements in music (Nikolic 2015). On a worldwide scale, standardized tests are carried out to evaluate the musical aptitudes that are a synthesis of innate predispositions and acquired experience in which is particularly important previous musical education and environment.

In the Republic of Macedonia, within the framework of the formal education, music potential of the young people is systemically developed and nurtured in all the years of elementary education through various educational contents and topics (eg singing, listening to music, playing Children's Musical Instruments, music and movement, etc.). Even in high school, which is also mandatory, there is a discontinuity in that process of maintaining the inherent predispositions and acquired musical knowledge and skills because music is a compulsory subject only in the general program secondary schools (gymnasiums), only on a theoretical level, while music activities are freely chosen. In the secondary vocational schools, music is an optional subject or it is not at all available. Given this discontinuity in music education, we decided to implement the standardized Gordon test to evaluate musical aptitudes because it does not require musical knowledge from the respondents and covers the widest population. There are six types of Gordon tests, and so far in R. Macedonia has only been applied Primary Measures of Music Audiation (PMMA) in some of the primary schools (Gmirja, Skaric ...). According to the age of the respondents, the Gordon's AMMA test for students of non-music as well as music majors was applied for the first time.

The research was conducted in the course of 2018 with 50 students from the Faculty of Pedagogy "St. Kliment Ohridski" in Skopje. The respondents are from the study groups of grade

classes and pre-school education that begin studying this subject in the last two years of studies (in the third and fourth year).

1. Edwin Gordon AMMA test

Edwin E. Gordon is widely remembered as a researcher, teacher, author, editor, and lecturer. Through extensive research, Professor Gordon has made major contributions in the study of music aptitudes, audiation, music learning theory, tonal and rhythm patterns, and music development in infants and very young children. He is the author of six highly regarded music aptitude tests, as well as numerous books, articles and research monographs.

Although Professor Gordon is known as a researcher and a theoretician and not as a philosopher of music education, his work reflects a deeply held philosophy about the value of music in the lives of all human beings: "Music is unique to humans. Like other arts, music is as basic as language to human development and existence. Through music a child gets insights into herself, into others, and into life itself. Perhaps most importantly, she is better able to develop and sustain her imagination. Without music, life would be bleak (From Gordon, Edwin E. *A Music Learning Theory for Newborn and Young Children*, Chicago: GIA Publications, 1990, pp. 2-3.). He established the Gordon Institute for Music Learning (GIML), a professional organization dedicated to the promotion of research in the field of music education. The goal of Gordon Institute for Music Learning is to advance musical understanding through audiation because he believes in each individual's musical potential, and supports the interactive learning community with opportunities for music and professional development (<http://www.giml.org/aboutgiml.php>).

Edwin Gordon actually emphasizes the need for each student to get the opportunity to use his musical aptitude, ie his potential. For this Gordon has developed a theory of musical learning where the core of musical learning should be an audiation argument (<https://schoolworkhelper.net/music-learning-theory-edwin-e-gordon-analysis/>).

Gordon's theory of musical learning, developed from the mid-1950s to the present day, is a set of ideas on how people can teach music through audiation. (http://www.sc.edu/library/music/spec_coll.html). He bases his theory of musical learning on musical aptitude, the potential that each person has for a musical achievement (Gordon, 1965/1995, 1979, 1982, 1989a, 1989b).

Musical aptitude and musical achievement are different, but are closely intertwined. While musical aptitude is the possibility of musical achievement, the musical achievement is the realization of that possibility. According to Gordon, our potentials and achievements in musical learning are based on our musical thinking that goes beyond mere imitation and leads to musical understanding (Gordon 2007b; 2007d).

The methods and techniques are unique to each teacher. Although teachers can comply with one or more musical education approaches, they must ultimately define their musical educational practices individually. Therefore, “Gordon's approach” is unique to Gordon. Teachers who use Gordon's Music Learning Theory must examine and develop their musical educational practices and guide their students in independent music through audition. As they do this, they perfect their musical learning and learning methods while using the appropriate development techniques.

Method

The Advanced Measures of Music Audiation (AMMA) test of E. Gordon is a standardized test that gives insight into musical aptitudes and musical achievements, i.e., a measure of a student's potential to achieve in music, while music achievement is a measure of what a student has learned (Gordon 1989).

The test's stimulus mode is 30 pairs of musical statements performed by a synthesizer and recorded on a cassette tape. Listeners are asked to discriminate between statements in each pair: whether the items in the pair are the same or different tonally and the same or different rhythmically. The whole procedure lasts about 15 minutes, it is easy to implement and has a solid scientific base and a high level of standardization. The response mode is paper and pencil. The test consists of two sections: tonal aptitude and rhythm aptitude, which are summed for a total score.

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