REVIEW

by Prof. Dr. Ganka Nedelcheva, Sofia University "St. Kliment Ohridski"

of dissertation for the award of educational and scientific degree

DOCTOR

in higher education 1. Pedagogical sciences by professional field 1.3. Music Teaching Pedagogy (Music Teaching Methodology)

Author: GEORGI IVANOV GEORGIEV

Subject: METHODICAL MODEL FOR THE APPLICATION OF MOBILE TECHNOLOGIES IN MUSIC TRAINING

Scientific adviser: Prof. Dr. Adrian Georgiev

I. Short biography of the doctoral student.

Georgi Ivanov Georgiev was born on 24.04.1969. He is a graduate of the "Lubomir Pipkov" National School of Music and Academy of Music "prof. Pancho Vladigerov ". He graduated as double bass player in 1995 and this explains the series of his engagements as an orchestra player in various formations in Bulgaria and abroad. He received his Master's Degree in Computer Audio Technology (2002/2004) from "St. Kliment Ohridski" University of Music at the Faculty of Music at the Faculty of Philosophy and Social Sciences (now the Faculty of Educational Studies and The Arts), which re-arranges his professional priorities. He began to take an active interest in training courses and seminars in Sound Design, Production and Media Strategies (Alen Burns & Assotiates, BCI, Fremantle Media, Endemol). Doctoral Program in Computer Audio Technology and Tutoring at Sofia University, Faculty of Fine Arts (2004-2009). During this period, his professional engagements as a sound engineer and music producer at Sky Studio began, as well as on the national radio networks FM +, Vitosha, Atlantic as music and

technical director. In 2016/2017 he specialized in Music Production at Berklee College of Music.

Most impressive is the assets of Georgi Georgiev as a music producer and music supervisor in the most watched TV shows/ formats in Bulgaria - X Factor, Star academy, Lords of the air, Bulgarian Christmas, Bulgaria Got Talent, Like two drops of water, Masked Singer and more. I add to that his status as a Google Music Curator from 2018 until now.

His pedagogical engagements at Sofia University "St. Kliment Ohridski" began in 2015 as an Assistant in Computer Audio Technology in the Department of Music of NSF.

II. Topicality of the topic

The research area chosen by the doctoral candidate is defined with a high degree of relevance and innovation. The focus of his work is the intersection of mobile technology with music pedagogy. These relationships are multidisciplinary and multivariate, initiating different solutions, generating experimental energy and leading to the creation of new pedagogical models in music teaching of practical importance.

III. Knowledge of the problem

The orientation of the dissertation author towards the multifaceted global manifestation of the technological world and the micro and macrosworld of sounds in it is neither accidental nor chaotic. I would consider it well thought out, strategically well planned and very successfully implemented through his professional development. To his brief biographical data, in support of this, I add his high personal computer skills and digital skills. This clarification makes sense in relation to the complex system of multimedia technologies - tone directing - music pedagogy. His practical realization as a top-class professional and his personal observations as a teacher put the doctoral student in a favorable position with a complex view from everywhere. This allows for the sum of many point of view, which combine and summarize the whole system and its movement in space.

IV. Research methodology

The aforementioned "complex view from everywhere" is directly related to the methodology used in scientific work, which is a reciprocal complex of analytic-synthetic, comparative and experimental methods, diagnostic tools for research, analysis and selection of music applications, pedagogical observation, questionnaire, mathematical-statistical method for processing and analysis of experimental work.

V. Content and evaluation of the dissertation

The dissertation submitted is in volume of 190 pages. Content covers Introduction, Chapters I-III, Conclusion, Bibliography, Annexes.

In the Introduction, the doctoral student presents a panorama of modern time with its semantic codes, which characterize it as information, technological and interactive; with the processes of digitization and digitalisation that are inseparable from everyday life; with elements of the software and hardware environment that irradiate all areas of human knowledge and activity. Information technology codes are also located in the educational space and innovate its manifestations through the new forms of continuous, advanced and open education. This dynamic is well exposed by the doctoral student and followed by important consequences when it initiates and results in changing mental attitudes and educational patterns. Awareness of the computer as a traditional tool in the life of the next generation is an incentive to use modern music applications and introduce them to the educational content.

The introduction is a conceptual framework in which all the semantic attributes - the purpose, object and object of the research, the working hypothesis, the aims and tasks of the research work are correctly stated.

Chapter I expounds the PhD student's concept of "teaching music using mobile / smart phones". The approach he uses can be summarized as holistic. The National Education Strategy of the Republic of Bulgaria with its administrative provisions and well-researched educational initiatives of the European educational strategy "EUROPE 2020" find their place here. In this multidimensional activity of state structures, mobile technologies interfere

with their functionality and convenience. Thus, the map of our educated civilization is marked with many terminological presence: e-learning moodle, m-learning, distance education, on-line learning. Technologically, the tools used to do this follow the subject line PC-Tablet-Smartphone. The advantages and the market success of mobile phones guaranteeing the mobile use of the Internet are taken into account, which gives an overall positive vision of educational strategies in the near and far future. This ascertainment nuance accumulates in advance a sufficiently positive attitude towards their application in the pedagogical space, in particular music.

The PhD student defines mobile learning with the help of authorities - proven by his theorists, as well as two basic concepts for the use of mobile devices in education: BYOD (Bring Your Own Device) and GYOD (Give Your Own Device). It emphasizes three important key components of m-learning: "technology mobility, learner mobility and learning process mobility" (p.37). The starting point of his reflections and analyzes is the balance between advantages and disadvantages, which leads to objective scientific conclusions without any dose of bias.

Thus, in a meaningful and logical sense, the specific characteristics of mobile technology training and its implication in school music pedagogy are introduced in the semantic structure of the text in order to reach curricula using smart devices, didactic characteristics of multimedia content and the need for a personally engaged presence. of the teacher in the whole process.

The doctoral student points out as a factor of particular importance for the success of mobile music training the choice of operating system, hardware devices and software environment, mobile applications, details which he himself knows and characterizes perfectly.

I have tried in a very abstract and highly compressed form to trace in this part of this review the movement of the author's thought in this inhuman maze of information, problematic situations and interrelated elements, which in this way gives the impression of clutter and articulation. But the real result is that it serves her flawlessly.

Chapter II of the dissertation entitled Methodical Model, the PhD student demonstrates a high level of competence with respect to the State Educational Institute in Bulgaria, focusing on the music curriculum for III and IV class of general education preparation. With this he demonstrates that he is familiar with the standard forms of music education in our country, but it turns them into a creative challenge in order to propose and implement his innovative changes at his preferred school age. To do this, it uses two applications - the Walk Band and the Maestro.

The first model is implemented through the Walk Band, presented by the doctoral student as "virtual music production for Android OS, enabling the introduction of multiple virtual instruments" (piano, guitar, acoustic drum, electronic set drums, synthesizer, rhythm machine, etc.). It visualizes a rich set of options through photo material and opens the entire process of recording and memorizing a step by step music piece.

The second model of G. Georgiev was realized through Maestro - music notation and composition for Android OS. He defined it as "an application for musical notation and composition that comes as close as possible to writing notes and other musical symbols on a simple sheet of music" (p. 109). The menu is rich (types of note values, dotted derivatives, all types of division of note values, pauses, intervals, triangles, chords, chromatic, articulatory and dynamic characters), and the technological realization, shown again through photo material and instruction in 10 steps, turns writing the note text and sounding it in an easy and enjoyable task.

Both models are specifically designed for music lessons. The author proposes a structured organization of the lessons in which they are applied. The first model (through the Walk Band) is oriented towards the study of instrumental science - learning about musical instruments within 3 lessons. The second model serves to master the notation of music applications in 6 school hours by relying on the game approach by introducing a GAME OF NOTES.

The PhD student summarizes in his conclusions the increasing interest and positive attitude towards music teaching in the classes using mobile devices.

The design and conduct of the experimental study is the subject of the chapter III chapter. It was held in 51 Secondary School "Elisaveta Bagryana" in Sofia, among students from III and IV class. And this part of the dissertation is presented by its author as a professional whose stages of work move in order, logic and perfect organization. This finding is valid for the conducted ascertainment and control experiment, questionnaire, test checks, methodological recommendations and answers the whole scientific-documented research standard. The statistical processing of the results of each pair (experimental and control) is represented by circular, linear and vertical diagrams. They take into account the indicators of the survey and the level of knowledge before and after the experiment and are subject to a detailed quantitative and qualitative analysis by the doctoral student. He convincingly proves the working hypothesis and attests the innovative approaches introduced as highly effective for music-pedagogical practice.

In the Conclusion of the Thesis Georgi Georgiev presents conclusions and evaluations from his scientific and experimental work. It is seen as part of its overall concept and vision for mobile music training. The multi-sensory presentation, in his view, creates a dialogical environment in which student and technology interact. In this environment of a local thematic project, the child shapes his or her cognitive outlook through the powerful impact of multimedia expression, and the good results of this communication bear marks of categorization.

VI. Contributions and importance of development to science and practice

I accept unconditionally the contributions of his work to the dissertation. They are multidirectional, meaningful and verified in the most explicit way. They are exposed in a suitable and comprehensible verbal format, as well as all the author's text.

VII. Evaluation of dissertation publications

The doctoral student presents the monograph "Mobile Technologies in Music Education", which is printed and probably based on Georgi Georgiev's dissertation text, and the Abstract fully reflects the essential ideas of his research work.

VIII. Critical notes and recommendations

Recommendations can be made regarding the enlargement of the thesis structure and its content, especially in dealing with subheadings and secondary structural units (eg. For what reason is the Conclusion introduced as Chapter IV?). There is also a need for a more precise attitude towards the technical implementation of the text - graphic exposure formulas (3 different variants - Chapter I, Chapter II :, Chapter III-), there is no page numbering in the declared Content indicating the beginning of each structural unit). The biggest problem is the Bibliographic Reference, with repeated authors and editions. If these small but essential details are cleared in a preliminary editorial work, the overall exceptional impression of the manuscript will not hurt. I think the author's perfectionism deserves it.

IX. Personal impressions

I am interested in moving forward in the different fields of human knowledge - pedagogical science as a macro environment, in particular music and instrumental pedagogy. In the person of Georgi Georgiev I see the intellectual and human presence of a musician who respects with his content. The interesting construction, which I initially strongly rejected, turned out to be a very successful format. It creates the feeling of an installation moving in space, changing geometric and trigonometric shapes, dynamizing them, stretching them into corners and diagonals, but always remaining stable. And this is an achievement that reminds me of Alan Turing's statement: "A machine can be considered thinking if the person who has a dialogue with it does not understand that it is talking to a machine."

X. Conclusion

On the basis of the established definite and high achievements in the research text of the presented dissertation, I propose to the Distinguished Scientific Jury to award the scientific and educational degree "DOCTOR" to its author - Georgi Ivanov Georgiev.

Prof. Dr. Ganka Nedelcheva

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