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RESEARCH AND MUSICAL CREATION IN THE GAP OF INTERDISCIPLINARITY

Abstract

The phenomenon of interdisciplinarity in the context of science and arts in Croatian scientific, artistic and educational practice raises numerous issues. One of them is how to link arts and research in humanities. The paper draws from the connections between science and art established by the research community of Laval University in Quebec, Canada by founding a new discipline of research-creation (Fr. *recherche-cr ation*). The aim of this paper is to establish the existence of interdisciplinary projects in Croatia by giving two examples of interdisciplinary research which can be classified as research-creation projects. The presented data confirm the existence of such a project whose results have not only practical implications, but also bring theoretical innovation resulting from research to the field of musicology and performing arts, as well as musical education and education in general.

Key words: art, interdisciplinarity, musical creation, projects, science.

Introduction

The term of interdisciplinarity is being quite often used in Croatian scientific, artistic and educational discourse as of late. The connecting of different fields within and among certain scientific or artistic areas often leads to a difficulty or a lack of understanding of specific ways in which interdisciplinary combinations can be made. A particularly challenging issue in the artistic field represents finding a mode to connect research comprising of both scientific and artistic elements. Even though Ordinance on

the Scientific and Artistic Areas, Fields and Branches (2009)¹ unmistakably defines areas of science and of arts, as well as the interdisciplinary area of science and the interdisciplinary area of arts in Croatia, the ways of interdisciplinary linking of arts and research in humanities are not entirely clear. However, scientific and artistic practice in its developmental and innovative production increasingly encounters the need to link different disciplines, not only those belonging to arts or sciences (one or more of them), but in the interdisciplinary linking of sciences and the associated research methods and methodologies of certain areas of the arts.

Questioning of interdisciplinarity within the field of art and/or science recently emerged as the main topic of certain artistic and pedagogical conferences and symposia. Thus, for example, the Third International Symposium of Musical Pedagogues at the Juraj Dobrila University in Pula was held under the title of Interdisciplinary Approach to Music: Research, Practice and Education. Numerous scientific and professional papers held at the symposium dealt with the topics connecting music with other non-musical disciplines such as journalism, the media, communications, physical exercise, physical education, reading skills, information and communication technology and education. Individual interdisciplinary projects merging music, language learning and other arts were presented (Stanković, Vidulin-Orbanić and Belušić, 2013), as well as those which stimulate creativity through interdisciplinary education (Mihevc, 2013) and those which detect interdisciplinary connections between the fields of music education, art and culture (Zadnik, 2013). However, in spite the practical implications and affirmation of the results of interdisciplinarity in the realisation phase, when it comes to the valorisation of interdisciplinary scientific papers, or to awarding financing to such interdisciplinary projects, as well as preparation, organisation and implementation of new interdisciplinary curricula in Croatia there are still numerous obstacles to be overcome in the academic circles.

Inquiries and discussion at the leading universities of the world prove that the issue of interdisciplinarity between sciences and arts is not unique to Croatia. For example, Aguilar and Dolan (2016, www.thecrimson.com/article/2016/11/22/arts-and-science-cover/) testify to an active consideration of connecting arts and sciences at the Harvard University. The interdisciplinary papers of the students of that eminent university testify that it is possible to connect arts and sciences which leads to a new understanding possible only when the current given framework traditionally dividing the studies into cognitive (scientific) and creative (artistic) is abandoned. According to Aguilar and Dolan (2016), “the widespread ingrained sense of division between the arts

¹ In addition to the natural sciences in Croatian language science covers research in humanities, as well.

and sciences traces back to popular ideas about brain lateralization: The left hemisphere processes logical information, and the right hemisphere, creative.” Thus Hana Bajramović, a student at Harvard Crimson (Aguilar and Dolan, 2016) points out: “Any time you take two things that are not meant to be combined and find an interesting and creative way to link them, you’re developing a skill that’s more broadly applicable. The ability to bridge gaps between disciplines is a creative and mental exercise that has much broader applicability outside of writing a thesis”.

When contemplating new competencies for future generations numerous new universities around the world consider integrated studies which shall give the students the possibility to acquire new competencies integrating the areas of, for example, engineering, sciences and arts. Thus, for example, University Lehigh (USA) in the academic year 2016/17 proposed a new program titled IDEAS: Integrated Degree in Engineering, Arts And Sciences (2016, <http://catalog.lehigh.edu/coursesprogramsandcurricula/interdisciplinaryundergraduatstudy/ideas/>). The program is explained as it follows: “Interdisciplinary education in the arts and sciences and engineering is of significant value to students who will pursue a wide variety of careers. The complex challenges and problems confronting us in the 21st century dramatically underscore the importance of liberally educated and technologically sophisticated individuals whose habits of thought are thoroughly and comfortably interdisciplinary.”

C. Jones (2009, p. 1) when discussing the advantages of new interdisciplinary studies points out that the “interdisciplinary approach provides many benefits that develop into much needed lifelong learning skills that are essential to a student’s future learning.”

Inspired by the applications for financing projects which mostly acknowledged research projects in scientific, and not in artistic disciplines, a group of professors, artists and scientists from Laval University in Quebec, Canada formulated a new artistic and scientific research discipline called research-creation. Research-creation is, according to the definition of the Social Sciences and Research Council (Conseil de recherches en sciences humaines – CRSH, 2016, <http://www.sshrc-crsh.gc.ca/funding-financement/programs-programmes/definitions-fra.aspx#a25>.) of the Canadian government which sets out the classification of programs to be financed, “An approach to research that combines creative and academic research practices, and supports the development of knowledge and innovation through artistic expression, scholarly investigation, and experimentation. The creation process is situated within the research activity and produces critically informed work in a variety of media (art forms).”

The question arises whether such a scientific and artistic research principle can be applied to projects conducted in Croatia, and whether such projects can, in turn, be recognised as projects belonging to the new discipline of research-creation.

In Croatia science is defined as “a totality of ordered and general knowledge including observation, experiments, research and explication of facts and phenomena in individual areas of man’s knowledge of nature and society” (Anić, 2007, p. 659), while art is “original creative activity rooted in sensibility and expressed through spoken or written word, voice, lines, colours, movement, plastic form, construction etc.” (Anić, 2007, p. 596). Each definition clearly delineates the subject it describes. Each discipline, depending on the area (natural, social, technical sciences and humanities etc.) has different research methods and methodologies. Each art (artistic discipline) has its own science –science of art which it studies and whose laws and circumstances of creation it describes as a product of sensory cognition materialised in the creative act of formation of an artefact/work of art (history of art, musicology, theatre studies etc.). The art of music employs sound as a means of expression which is invisible, intangible and immaterial (Stévanec, Lacasse, 2013). According to Arendt (1989) music is an art which cannot be seen. Music, as a sound phenomenon, exists only in the moment when it is being performed by an artist, or when a listener listens to a recording. In both cases the sound phenomenon takes place in the moment of the performance. The question arises how to objectivize something which exists only in a short moment of someone’s perception? Additionally, how can one comprehend, analyse and valorise projects which in certain segments integrate knowledge attained through scientific research methods, and ultimately result in a new artistic product which belongs to the field of arts and which came into being through a creative act in the field of arts? Such interdisciplinary project requires new interdisciplinary methods which can explain the rules of research of product creation in the field of research in the arts.

According to Dubé (2013), theoretical explanation which describes creation in the process of research-creation, should not be reduced to mere informative description of the creative process of a musician-artist or to the autopoetics of the creative process: it should be based on a scientifically documented theoretical framework and argumentation based on acceptable and adopted knowledge accepted in the research community. Moreover, the research part conducted should be based on strict scientific methods so that the results attained can be disseminated through research magazines thus contributing to the development of knowledge in the field of musical creation. Consequently, Dubé (2013) stresses, the research-creation project yields two types of results: on the one hand a work of art which came into being, and on the other, a theoretical deliberation accompanying the process of creation of the work whose aim is a strictly formulated method of communication of the creative process related to the

creation of a piece of music. It should harmonize and bring into relation two diametrically opposite disciplines integrated in one project. Therein lays the complexity and ambivalence of this new unique discipline which brings a plan and a moment of cognition (science) in the process of music creation (art) in an innovative way.

The term creation, “outside the university context” according to the definition of Stévanice and Lacasse (2013, p. 28) from the Laval University, connotes a creation of a work of art (a sculpture, a novel, a piece of music, architecture, visual arts...), the first or a new interpretation of a work in concert and/or sound and/or video recording, or on the radio or other. “In university context”, according to Stévanice and Lacasse (2013, p. 28) “*creation*, should be accompanied by a critical and aesthetic review which contributes either to the reception or to an original experience. Each interpretation should be innovative and should bring new and original perspective to the interpretative practice alone, as well as to criticism and aesthetic judgement.”

Therefore, the process of research-creation, according to Pinson (2009, p. 10) assumes, in addition to the realisation of artistic production, scientific research in the following eight phases:

1. „Identify the problem and as yet unexplored or unknown field based on research questions and previous knowledge
2. Explore the status of research
3. Formulate a research question
4. Choose a method and adequate methodology for finding the answer to the question
5. A critical assessment of known sources
6. Search for and criticism of new source
7. Devising an original work from the available data according to a strict paradigm
8. Dissemination of research results in accordance with ethical, strict and presentation standards accepted by the profession, as well as in a professional way (conference, symposium, scientific and professional journals).”

The above given specificities of artistic creation and the scientific approach clearly demonstrate that we are dealing with two epistemologically different types of knowledge which need to be integrated in a new discipline.

According to Dubé (2013) this bicephal approach to research of creation necessarily requires that a researcher-creator, as project leader, have dual competency, that of a creator and that of a researcher. If the required characteristics cannot be found in one person, an interdisciplinary team of experts need to be put together for the implementation of the project, whose specializations shall cover fields required for project implementation.

The authors of research-creation idea, Stévanca and Lacasse (2013) give three artistic products as results of the research-creation project: musical composition, interpretation, and improvisation.

Thus in the attempt to define a discipline of research-creation Stévanca and Lacasse (2013, p. 81) point out that the “research-creation consists of a theoretical process which requires continuous feedback between theory and practice. It is also a matter of: 1) artistic and cognitive practice where artistic activity leads toward theory, or 2) cognitive activity of creation when a theory can lead to artistic production. Practice grows out of theoretical articulations of practitioners-researchers, and vice versa: researcher and creator can join in interdisciplinary projects and collaborate in the creation of a work where the final result is the amalgamation of specific disciplines. Project participants in the research-creation project are thus not only musicians, but also researchers and research-creators in their respective disciplines joining to collaborate on joint projects.”

Research methodology and results

In order to exemplify and clarify the above two separate interdisciplinary researches conducted in Croatia and linking arts and research in the humanities shall be analysed according to the above given artistic and scientific criteria.

Musical motivation in early reading and writing teaching project

The title of the first project – *Musical motivation in early reading and writing teaching* conducted within the scope of a wider interdisciplinary project titled *Linguistic and artistic standards in early reading and writing in the Croatian language* at the Faculty of Teacher Education in Zagreb from 2007 to 2014, contains interdisciplinarity of arts and research in the humanities, that is, combines two completely different fields. The first one is music as the art of sound – that is music as a product of artistic creation which, once created, needs to serve as a motivational tool in language teaching, that is in teaching reading and writing, while the second one refers to interdisciplinary science – Methodology of Croatian language teaching, that is, a more specific field of teaching early reading and writing.

Based on Pinson’s (2009) phases given above the following Eight phases of research can be discerned in this project:

1. The role of music in the teaching method: active listening, and then performing of songs (music and lyrics) contributes to raising phonological awareness which is a prerequisite for successful mastering of reading and writing skills (according to Pinson’s (2009) Phase 1: “Identify the problem and as yet unexplored or unknown field based on research questions and previous knowledge”).

2. Before the project began we noticed that no research was conducted which introduces musical motivation in the teaching method of early reading and writing teaching in the Croatian language (according to Phase 2: “Explore the status of research”).
3. Research question was formulated: Will the introduction of musical motivation improve the results of participants by raising their phonological awareness? (according to Phase 3).
4. Statistical methods were defined and a questionnaire was designed to examine the state of phonological awareness before and after the introduction of music in the experimental and in the control group. (according to Phase 4).
5. In order to prepare specific musical and methodological templates (artistic artefacts) which would meet the criteria required for project implementation, exploration of neuro-scientific literature which links auditive and cognitive neurological processes was conducted. The aim of studying such literature was to find neurologically congruent points which react in the process of listening to music, and are simultaneously activated in the cognitive processes of reading and writing. The result of this study of literature (Bežen, Jurkić Sviben, Budinski, 2013), which is continuously being added to, was singling out of the OPERA hypothesis by A. Patel (2011) which became a starting point in the creation of songs which served as methodological templates designed to activate specific targets of neurological stimula with the aim of strengthening neurological connections affecting the raising of phonological awareness (according to Phase 5).
6. Literature from the field of methodology of Croatian language teaching was also critically studied, and it came to the fore that music was used only as a backdrop in the reception of literary works, to support the mood, but not within a methodological approach to early reading and writing, that is the adoption of new sounds and letters (according to Phase 6).
7. Following the conducted research a reasearch paper was written (according to Phase 7).
8. The paper was presented at the Third Symposium of Musical Pedagogues in Pula in March 2013 and was published in the Proceedings from the Symposium titled *Musical motivation in early reading and writing of the Croatian language (187-199)* as original scientific paper (according to Phase 8).

Detecting eight phases in the research project connecting music and early reading and writing confirms the scientific element of interdisciplinary research-creation project titled *Musical motivation in early reading and writing teaching*.

The scientific aspect of this project included a scientific approach (studying literature in the field of psychology of music and neuroscience, as well as methodology as a research discipline in the field of teaching Croatian language reading and writing) in the attempt to articulate the necessity of the composition of specific songs, following which the songs-artistic artefacts were composed. The artistic aspect of the project refers to the composition of 30 songs and writing of 30 lyrics for each letter of the alphabet in the Croatian language. (Once it was established that the necessity for composing songs (artistic artefacts) has a scientific basis, the artistic-creative process of composing and writing lyrics for 30 songs for each letter of the alphabet of the Croatian language began.) On the basis of the research template the researcher composed simple melodies (mostly in the form of a short musical sentence 4+4 bars) adapted to the scope of children's voices (h-d2) which every child could easily commit to memory and sing to a simple tune, with simple rhythmical patterns appealing attractive to children. Lyrics (resulting from a creative poetic act) are inseparable from these songs-methodical templates and have a specific methodical purpose: they are saturated with phonemes the students have to adopt auditively and in them semantically recognize the sign (grapheme) which they need to use to write down the phonemes they hear (Bežen et al., 2013). This process which takes place in a child's brain – the transposition of a phoneme into a letter, is an extremely complex cognitive process which includes phonological recoding (Erdeljac 2009, 102) and phonological loop (Rončević Zubković, 2010). When interpreting phonological recoding hypothesis Erdeljac (2009, p. 102) points out: „Since spoken language preceeds written language (philogenetically and ontogenetically) learning to read can be observed as learning visual forms which in a certain regular way correspond to words already existant in the spoken language. What is actually being learned can be called the rules of grapheme and phoneme corespondence, whereby the form of the letter is translated into a (sound) form produced as a result of the auditory analysis of the spoken word. In such interpretation reading makes a connection with mental lexicon only through auditory forms. Such a proposition is known as phonocoligal recoding hypothesis.“

Phonological loop (according to Rončević Zubković, 2010) facilitates the adoption of new words and particularly enables temporary storage of unknown vocal sequences.

The importance of short-term verbal memory (phonological loop) is strictly connected to the development of the early reading skill due to the nature of phonological coding, which is the process of translating letters into phonemes which have to be temporarily stored until the very last letter is decoded. In the next phase the whole sequence of phonemes is connected into words. The given terms reveal the complexity of neuro-cognitive process in children taking place in the course of adoption

of basic terms imperative for the process of reading, and later, a process of writing, as well.

The role of music in this methodological act is multiple: firstly there is the initial and motivational role as it is activity immanent to children contributing to affective (emotional) development of a child affecting emotions directly via the amigdala (Bežen et al., 2013). Secondly, music affects neurological system by strengthening neurological connections in the brain in the centres for the reception of sound – music, as well as speech. The activity of listening to music improves sensitivity to any type of sound, and thus consequently to phonemes, as well. Singing songs is an activity which encourages children to actively participate in the process of learning phonemes and letters, children learn to employ multiple senses simultaneously (sight, hearing) and reproduce sound actively. Through the singing activity they are inspired to engage in the understanding of the lyrics they sing and in their mental map visualise the sign (letter/grapheme) for a phoneme they are studying.

Composing music and writing special functional lyrics was a creative act which produced new works of art on the part of the researcher-creator, works which fulfil their primary function of musical motivation in the methodology of Croatian language teaching; they are also independent creations with artistic and aesthetic value and are suitable for children of preschool and early school age (6-8 years). Songs have been recorded in a studio and now as auditive material accompany the methodological unit of teaching capital and small letters in the teacher's manual *P kao početnica* (ABC Book) (Budinski, Diković, Ivančić, Veronek Germadnik, Kolar Billege, 2016) published by Profil-Klett.

A methodological manual for teachers titled *Glazbom do glasa i slova* (Learning sounds and letters through music) is currently being compiled. It will be accompanied by a sound recording medium, music score and lyrics to all 30 songs which can be used in practice as teaching material in subjects other than music in general education schools, as well as motivating literature for students of teacher education and related colleges, teachers in grades 1-4 of elementary schools and preschool teachers. An interdisciplinary team of experts participated in the articulation and implementation of the project comprising a doctor of Croatian language and literature (Ante Bežen), researcher-piano player and doctor of Croatology (Tamara Jurkić Sviben), and a doctor of methodology of Croatian language and literature teaching (Vesna Budinski).

Based on the above, the project titled *Musical motivation in early reading and writing of the Croatian language* meets scientific and artistic components in the interdisciplinary approach, and can thus be understood as a project within the discipline of research-creation.

Rikard Schwarz's Children's Suite for Piano project

The second interdisciplinary project is a creative-research project consisting of musicological archival research and the finding of a music score for a composition by a Jewish-Croatian composer Rikard Schwarz titled *Children's Suite for Piano*. The project consists of the contextualising of Schwarz into the history of European musical heritage through a written musicological text and analysis, of editing of the music score for print, and of a work of art: preparation of the interpretation and artistic performance based on the music score for concert performances, as well as a studio recording of the composition to a sound recording medium.

The project began in 2006 in Israel, and was continued in Croatia from 2007 through 2013. It was managed from the beginning to end by a single researcher-artist, the author of this article. Scientific approach to the problem began with the collection of material for a much larger project in the field of Croatology – an interdisciplinary doctoral research titled *Musicians of Jewish Origin in Northern Croatia from 1815 to 1941* at the Centre for Croatian Studies, University of Zagreb. Archival material was collected in Israel, Serbia and Croatia.

The phase one (1) of the study was identified in Israel where it was recognised that musicians of Jewish origin have been an unexplored field in Croatia previously and that there are very few information on the composer Rikard Schwarz (1897-1941), his oeuvre and heritage.

The status of research (Phase 2) was Gorjana Ivoković's scientific paper (1998), the only one published in Croatia on the topic. Research question (Phase 3) was whether there are among Rikard Schwarz's papers in the archives of the Croatian Music Institute compositions for piano which could be prepared for performance and based on which a segment of the composer's style and epoch to which he belonged could be characterised?

Following archival research and the finding of a printed edition of the musical score from 1935 a musicological and interpretative analysis of the composition ensued, as well as a critical analysis of the music score (review of the music score: formal, harmony and interpretative analysis – according to Pinson's (2016) Phase 4 of the study: method and adequate methodology for finding the answer to the question).

Certain inconsistencies in the music score were perceived: irregular measure, in an individual bar measure was undefined and imprecise and there was discrepancy of rhythmical elements within a bar (according to Pinson's (2009) Phase 5: A critical assessment of known sources). Inexistence of another music score or autograph was determined (a larger part of the papers together with the manuscripts disappeared in

1941 in the Holocaust). In that case, having in mind the given circumstances (Phase 6), conclusions are based on the logic of the music structure and stylistic similarities in the works of other composers, Rikard Schwarz's contemporaries, such as Béla Bartók (1881-1945) and Sergei Prokofiev (1891-1953). By analogy a decision was made to rhythmically adapt the music score and correspondencies of measure in a bar (although the measure changes from bar to bar and is not written down at the beginning of the composition).

New knowledge (Phase 7) about Rikard Schwarz was analysed and presented in the foreword to the musical score titled *Rikard Schwarz: The Children's Suite for Piano* (Jurkić Sviben, 2013) published by Muzički informativni centar Koncertne direkcije Zagreb (Croatian Music Information Centre of the Zagreb Concert Management) and Udruga za proučavanje i promicanje kulturne baštine Tamar (Tamar, Association for the research and promotion of cultural heritage).

Published edition of the music score (Phase 8) was presented and is now publicly available serving as the basic music score for the interpretation of this work. In addition to musicological research and work on the adaptation of the music score which form the artistic/piano playing segment of the project, the researcher-creator artistically interpreted the said composition by presenting it to the public in numerous recitals at home and abroad in the period from 2010 to 2014. The height of artistic availability of the interpretation is the first sound recording of this composition on the compact disc titled *Začarani klavir* (The Enchanted Piano) (Jurkić Sviben, 2011) released by Croatia Records, thus giving the project the artistic component which is subject to critical and aesthetic review.

The analysis of scientific and artistic components of this research and artistic project such as musicological contextualisation, preparation for publication, interpretation and recording of the composition by Rikard Schwarz *The Children's Suite for Piano* reveals that this unique single project unifies all parameters of interdisciplinarity which characterise a discipline of research-creation in the field of interdisciplinarity of humanities and art, in this specific case of musicology and the art of music reproduction.

Conclusion

This confirms our thesis that in Croatia there are examples of interdisciplinary projects in the field of humanities and arts which meet all the criteria set by the interdisciplinary team at the Laval University in Canada for the new research and artistic discipline *Recherche-création*, that is research-creation.

The analyses of the two interdisciplinary projects presented here prove that Croatian humanities and arts can walk hand in hand with the latest international achievements in the field of interdisciplinary research in the humanities and the art of music. These analyses can serve as initial paradigms for the analyses of numerous other projects already completed in the said fields of humanities and arts, or of those on which work only begins, as well as a general paradigm for other projects in the process of making.

The results of such research and creative processes have multiple benefits for Croatian musical culture and musical heritage, as well as numerous practical implications. Published editions of music scores and released sound recording mediums which resulted from both projects can be used in music education in music schools, as well as for musical education and music in other subjects in regular elementary schools. Methodological manual for teachers *Glazbom do zvuka i slova* (Leaning sounds and letters through music) with the sound recording medium can be used as a teaching material in subjects other than musical education in general education schools, as well as motivating literature for students of teaching and related colleges and teachers in grades 1-4 of elementary schools and preschool teachers.

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ISTRAŽIVANJE I GLAZBENO STVARANJE U PROCJEPU INTERDISCIPLINARNOSTI

Sažetak

Fenomen interdisciplinarnosti u znanstvenom i umjetničkom sveučilišnom kontekstu, u hrvatskoj znanstvenoj i obrazovnoj praksi nameće brojna pitanja. Jedno od njih je kako povezivati područja znanosti i umjetnosti. U radu se razmatra na koji bi se način mogao pomiriti svijet muzikoloških i umjetničkih istraživanja te se ukazuje na potrebu (re)definiranja interdisciplinarnosti u području umjetnosti i znanosti. Kao primjer iznosi na koji način Sveučilište Laval u Quebecu (Kanada) pronalazi vezu između znanosti i umjetnosti uspostavljajući znanstveno-umjetničku disciplinu (*recherche-cr ation en musique Fr.* istraivanja-stvaranja u glazbi). Cilj ovog rada je utvrditi postojanje interdisciplinarnih projekata u Hrvatskoj dajući dva primjera interdisciplinarnih istraivanja koja se mogu ubrojiti u novonastalu disciplinu „*recherche-cr ation*“. Prvi istraivačko-stvaralački projekt jest u području glazbene motivacije i poučavanja početnoga čitanja i pisanja koji je realiziran u okviru interdisciplinarnoga projekta „Jezično-likovni standardi u početnom čitanju i pisanju na hrvatskom jeziku“ na Učiteljskom fakultetu u Zagrebu (2007-2014). Drugi projekt (2006-2013) temelji se na istraivanju glazbenika židovskoga podrijetla u sjevernoj Hrvatskoj koje se sastojalo od arhivskog istraivanja i pronalaska autografa, revizije i redakcije notnih materijala te pripremanja istih za izvođenje. To je istraivanje uključivalo i tonsko biljeenje za nosač zvuka. Rezultati ovakvih istraivanja i kreativnoga stvaralačkog procesa imaju višestruku vrijednost za glazbenu kulturu i glazbenu baštinu. Notna izdanja i nosači zvuka mogu se koristiti kao notna i audio literatura u glazbenome obrazovanju u glazbenim školama, ali i obrazovanju za glazbu i glazbom u nastavi glazbene kulture u redovnom osnovnoškolskom programu. Metodički priručnik *Glazbom do glasa i slova s nosačem zvuka* može se koristiti kao praktični nastavni materijal u općeobrazovnim školama, ali i kao poticajna literatura za studente učiteljskih i srodnih fakulteta te učitelje razredne nastave i odgojitelje u predškolskim ustanovama.

Ključne riječi: glazbeno stvaranje, interdisciplinarnost, projekti, umjetnost, znanost.