

## MULTIMEDIA APPROACH TO THE DEVELOPMENT OF SOCIAL CONCEPTS IN CLASS TEACHING – A VIEW FROM THE STUDENTS' PERSPECTIVE <sup>a</sup>

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### Abstract

The starting point of this paper is the widespread educational imperative that is nowadays directed towards schools, which are expected to prepare students to understand the sociability of the world they live in and to actively participate in it. This paper considers the possibility of more significantly affecting the development of complex social concepts (social groups, the past and the development of society, standards and rules, laws, etc.) and social interaction. The issue of efficiency of applied teaching models is viewed from the perspective of students as actors in the educational process. The aim of this research is to determine students' attitudes towards the adoption of content about the past during lessons based on the multimedia approach, as compared to traditional classes. The paper proposes a general hypothesis that the teaching about the distant past that includes vocal reproduction and audio-visual perception is more successful at encouraging students to continue independent research of historical sources, to actively construct historical knowledge, and to express social skills. The students (N=124) evaluated the effects of teaching on the subscales of a Likert-type questionnaire: research of historical sources, active construction of knowledge, and social skills. The results showed that students evaluated the applied teaching models for the adoption of content about the past as successful. Students who were focused on the musical and visual experience during the processing of historical content estimate that they understood the events, that the events seemed real to them, that they imagined historical places and personalities with ease, which contributed to their researching sources on their own, being more active in classes, and cooperating with others. The implications of the research results on the issue of more effective teaching during which social concepts are developed are reflected in the constant creation of new teaching models that make the understanding of today's society and living in it more successful.

**Key words:** historical content, music, singing, teaching of science and social studies

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## МУЛТИМЕДИЈАЛНИ ПРИСТУП РАЗВИЈАЊУ ДРУШТВЕНИХ ПОЈМОВА У РАЗРЕДНОЈ НАСТАВИ – ПОГЛЕД ИЗ УГЛА УЧЕНИЧКЕ ПЕРЦЕПЦИЈЕ

### Апстракт

Полазиште рада је све присутнији образовни императив који се данас упућује школама, од којих се очекује да ученике припреме за разумевање друштвености света у коме живе, и да у њему активно учествују. У раду се разматра могућност да се новим наставним моделима значајније утиче на развој сложених друштвених појмова (друштвене групе, прошлост и развој друштва, норме и правила, закони и др.) и социјалну интеракцију. Питање ефикасности примењених наставних модела посматрано је из угла ученика као једног од актера образовног процеса. Циљ спроведеног истраживања био је да се утврде њихови ставови у погледу усвајања садржаја о прошлости током наставе обликоване мултимедијалним приступом, у поређењу са традиционалном наставом. Постављена је општа хипотеза по којој настава о далекој прошлости која укључује вокалну репродукцију и аудиовизуелну перцепцију успешније подстиче ученике на даље самостално истраживање историјских извора, активну конструкцију историјских сазнања и испољавање социјалних вештина. Упитником Ликертовог типа ученици (N=124) су процењивали ефекте наставе по субскалама: истраживање историјских извора, активна конструкција знања, социјалне вештине. Резултати су показали да примењене наставне моделе ученици процењују успешним за усвајање садржаја о прошлости. Ученици који су током обраде историјских садржаја били фокусирани на музички и визуални доживљај процењују да су разумели догађаје, да су им они деловали стварни, да су са лакоћом замишљали историјска места и личности, што је допринело да и сами истражују изворе, да на часовима буду активни и да сарађују са другима. Импликације резултата истраживања на питање ефикасности наставе током које се развијају друштвени појмови, одражавају се у константном осмишљавању нових наставних модела који разумевање друштва данашњице и практично деловање у њему чине успешнијим.

**Кључне речи:** историјски садржаји, музика, настава Природе и друштва, певање.

### INTRODUCTION

Knowledge from the domain of social sciences as well as social skills, attitudes, and values that enable students for social action in a world that surrounds them are becoming an increasingly important task of today's schools. Although the reform processes in Serbia since 2003 have affirmed educational results (outcomes) and applicable knowledge, especially qualitative improvements of the teaching process, traditional teaching is still a trademark of our school reality (Jovanović, 2011; PISA, 2003-2009). In the countries of the region there is also an underrepresentation of different teaching methods and techniques, as is the case, for example, in the teaching of *Science and Social Studies* primary school subject, which could encourage experiential learning and problem-research (debates), project work, team work, etc. (Braičić et al., 2015), and thereby provide

“an openness to the teaching material, self-focus, self-perception, redefining, fluency of ideas, imagination, flexibility, and independent acquisition of knowledge” (Stevanović, 2003).

This paper considers the possibility of more significantly affecting the development of complex social concepts (social groups, the past and the development of society, standards and rules, laws, etc.) and operative social skills through new teaching models. A teaching model into which sensory impressions are integrated encourages the process of understanding historical events and processes and their integration into a complex world view. With an aim to verify the above mentioned claim, a teaching model was designed for the thematic unit *Our Heritage – Then and Now* (a thematic unit within the subject *Science and Social Studies*, for the third grade of primary school) with a focus on a musical and visual experience. Musical activities are included via singing and are viewed from the aspect of the songs’ power to arouse empathy and fill the students with joy that motivates learning, while multimedia presentations of the instructional content comprise different types of teaching media (text, video recordings, audio recordings, and interactive media) in order to provide a meaningful and authentic educational experience for students.

#### *THEORETICAL FRAMEWORK OF RESEARCH*

Theoretical studies define the early school age period as a time of psychological and physical maturation of children in the context of an idea of understanding the relations of the social world that surrounds them and their inclusion into social interactions whereby “a child becomes a competent actor who develops different strategies of action in different structural contexts” (Tomanović, 2004, p. 384).

The content that aids the transfer and adoption of social norms of behaviour, necessary for successful social communication and construction of relations at the widest social milieu level, is included in school programs. This directs teaching towards respecting individual abilities of students and their previous knowledge and interests, as well as towards using different educational strategies, which enable the development of habits and skills, the formation of attitudes and value systems, as well as familiarity with the students’ family contexts, the understanding of tradition, customs, value systems, etc. (Stanisavljević Petrović and Cvetković, 2011).

The formation and development of social concepts (social groups, development of society, understanding of the past, social values, norms and rules, laws, etc.) is significantly influenced by their complex nature as well as by cognitive abilities of students, which mainly rely on the empirical during the early school age, while their realization is determined by a teaching concept that is still traditional. For teaching to effectively mediate between students and social phenomena, it is necessary that it

support their basic feature – social convention or agreement, on the basis of which social phenomena are formed (Pešikan, 2003). While natural phenomena represent a natural necessity that does not depend on our willingness as social subjects, which is possible to explain but not possible to change, social phenomena are built on the foundations of human choice and convention, and can thus be changed according to new agreements (Ibid, p. 76).

In the educational system of Serbia the study of social content begins with the subjects *The World Around Us* (in the first and second grade) and *Science and Social Studies* (in the fourth and fifth primary school grades), so these subjects are the ones that should introduce the corpus of social concepts to students, gradually transforming every-day, experiential, and life concepts about society into scientific concepts (many social phenomena are taught through other subjects as well, intertwined through their content: *Serbian language, Music Culture, Civic Education, Folk Tradition*). Taking into consideration the programs of educational systems of other countries, correlative with the subjects *The World Around Us* and *Science and Social Studies*, it is concluded that, although there is no unified attitude about the organization of teaching, the subject names, and the teaching load of classes in which students aged from 7 to 11 acquire basic concepts about the social environment, there is a shared commitment to teach content about social topics in classrooms. Accordingly, all curricula focus on the content about the individual and the environment (from family and peer groups, through school, homeland, and country, to the global world space), which is subject to change (the past and the development) and in which the agreed upon rules are applied and respected (Blagdanić, 2008; Baranović, 2006; De Zan, 2001).

Methodical innovations in the presentation of social content in class teaching are viewed from planning aspects. There is a good number of such innovations, for example: the *thematic interdisciplinary plan* (Ševkušić and Šefer, 2006); *forms of cooperative work* (Miščević Kadijević, 2009; Ševkušić, 2006 and 1993); *collaborative learning by ERR three-part system model for the development of critical thought in teaching about the homeland* (Buljubašić Kuzmanović, 2006; Kostović, Vranješ and Goreta, 2008); *strategy of problematization of teaching, contextual learning, creative games, era, and culture illustrations through different media and group research work on small school projects* (Pešikan, 2003; Ševkušić, 2006; Šefer, 2003; Šefer and Ševkušić, 2006), and *planning in class teaching according to innovative didactical-methodical models* (Ilić, 2010; Milenović, 2013). The research results obtained by inclusion of these innovations in the realization of social topics show that teaching in which content is not designed as a typical lesson, but the process of learning and teaching is instead motivated by awakening children's curiosity and interest for exploring the world they live in, contributes more successfully

to the understanding of teaching materials and to the development of social concepts (Trbojević et al., 2015).

When historical concepts are viewed in terms of learning social concepts, relevant literature shows that learning historical contents should not be reduced to the acquisition of facts and concepts related to historical science (substantive knowledge), but that the emphasis should be placed on syntactic knowledge and reflected in mastering activities (historical research, interpretation of evidence, and application of previously acquired knowledge) and thinking abilities such as comparison, classification, prediction, reasoning, etc. (Blagdanić, 2008). The traditional teaching approach to learning content about the past meant becoming familiar with the content through mere reproduction (memorizing facts), placing the student in a passive position of an observer whose knowledge lacks systematic conceptual understanding and therefore has a tendency to be quickly forgotten, whereas today the emphasis is given to the development of the skills of searching for different historical sources, reflecting upon them, and contextualizing them (Koljanin, 2008). Historically, the ascertainment that changes in scientific disciplines occurred in parallel with the changes in modern society has led to a shift from the “*great past*” towards *cultural history* and *micro-history*,

“in which the emphasis is less on facts and more on the description of contexts and emotions, and in which the scientific analysis of sources is accompanied by inspiration, empathy, and understanding” (Beier-de Haan, 2006; according to: Miklošević, 2010, p. 208).

Students who experience strong emotions, a special mood, empathy, and patriotism during lectures about the distant past are more successful in acquiring historical content (Trbojević et al., 2015). Information represented verbally as well as visually in working memory enable better memorization (Sorden, 2005), and the synchronization of multiple senses is more efficient in encouraging the construction of historical knowledge and increasing *situational interest*, which is the attracting effect of an activity on an individual during the learning process (Chen, Darst & Pangrazi, 2001).

The importance of vocal music performance (VMP) in the education of children has its historical continuity. Since 1881, song has been a part of school education because it was thought that singing songs and memorizing them raises morale and thus significantly influences the development of a new political identity (Alten, 1997). According to Maria Montessori, music is the foundation of teaching in the classroom, because all kinds of music are intertwined in children, so singing or listening to music can be used not only as entertainment but also as accompaniment to other activities or a means to end an activity (1998, p. 25). Today music is part of an integral cultural curriculum. It has a leading role in everyday life of all nations, more than it ever did in the past, due to a rapid economic development and

the commercialization of the music industry. The way people see themselves in relation to music is an indicator of personal identity because it shows *an inner side* of an individual. VMP in class is identified as a unique way of communicating, through which the musical expression is manifested as a subjective experience of the school subject that speaks through the senses of hearing and sight (Jeremić, 2012). Students are emotionally engaged and involved in communication through the action of the song being taught, in the form of affective reactions in the language of music (Jeremić, 2013). While learning about the distant past, the awakening of emotions can significantly increase curiosity, interest, and the students' general positive approach to learning historical content. The instructional content that will be taught in class should be presented through the content of a song that is performed (with a patriotic song content or with a song describing the warmth of family, the love of the mother, the father, the country, or the homeland) or expressed through a combination of audio and visual means and media (images, historical photographs, maps, video and sound recordings, etc.). The objective of multimedia presentations of the instructional content is to activate multiple senses and to aid better memorization, shaping, and construction of knowledge, faster reasoning and problem solving, as well as individualization (Španović, 2010, p. 8).

#### RESEARCH METHODOLOGY

The objective of this research is to determine students' attitudes regarding the adoption of content about the past in the course of teaching that comprises the multimedia approach, as compared to traditional teaching. A general hypothesis was set, according to which the teaching about the distant past that includes vocal reproduction and audio-visual perception is more successful in encouraging students to continue independent research of historical sources, to actively construct historical knowledge, and to express social skills. The starting points were three specific hypotheses: (1) students who study according to the experimental model during lessons have a more significant incentive to continue independent research of historical sources; (2) students who study according to the experimental model actively construct knowledge about the past; and (3) students who study according to the experimental model during lessons about the past cooperate with their friends more successfully (researching sources, exchanging ideas). In order to test these hypotheses, an experimental research was conducted on a sample of 124 third grade students of primary schools in Sombor during the first half of 2015, whereby new elements in terms of instructional content and its presentation were included. The focus was on the experience of the past encouraged by vocal reproduction and audio-visual perception.

During the pedagogical experiment with parallel groups, 12 teaching lessons of the thematic unit *Our Heritage – Then and Now* were covered. In the experimental group, we applied a teaching model in which the content of the teaching lessons is presented in conjunction with vocal music performance and multimedia presentations of historical content. The model is illustrated through the example of a lesson called *The Past of My Town*. At the beginning of the class, students sing the song *In That Sombor Town*, which they have previously learned in music class, and then they start the virtual walk through the Museum of the City of Sombor, during which they focus on the most significant historical sources about the city, on the material evidence of the past (clothing, jewellery, furniture, etc.) and on famous people. They view the portraits of poet Laza Kostić and of Lenka Dunderski and listen to the audio recording of one of the most beautiful love poems – *Santa Maria Della Salute*, after which they discuss the way of life in the civil society at the beginning of the 20<sup>th</sup> century. Then the students sing the song *A Girl is Digging the Vineyard*, whose analysis shows what the way of life in the countryside used to be: working in the fields, gathering to help with the work, manner of dressing, and celebrations and holidays. It was concluded that every family has a past as does every city, as well as our homeland and our country. The song *There, Far Away* is performed and a multimedia presentation consisting of a documentary and photo recordings from the perspective of Serbia in the First World War is displayed. The unit is finalized with the performance of the song *My Country is the Most Beautiful of All*, accompanied by a multimedia presentation that begins with slides from the present day showcasing buildings, natural beauties, and material historical sources. Thus, through synchronizing music and images, the presentation provides support for the students, not only in acquiring the taught content about the past, but also in arousing emotions, patriotism, a sense of pride, and a sense of national belonging.

In the control group, the same content was taught by a teacher in the traditional manner. After a topic had been exhausted in class, students from the control and the experimental group evaluated the effectiveness of teaching during which they learned about the past. Due to the volume of the research, this paper presents the results of students' evaluations in relation to encouragement to continue with the research of historical sources, ability to actively construct new knowledge, and demonstrated social skills.

#### *Instrument*

Data were collected using a five-point Likert scale in which the students graded the lessons during which they learned about the past from 1 to 5 (1 signifying the lowest and 5 the highest presence) on the following subscales: continued research of sources, active construction of knowledge,

and social skills. The research instrument was thus constructed. The reliability and homogeneity of the scales were tested with Cronbach's Alpha coefficient (Table 1).

*Table 1. Reliability and homogeneity of the scales*

	Cronbach's $\alpha$	Cronbach's $\alpha$ for standardized items	N of items
Scale – C group	0.610	0.604	11
Scale – E group	0.897	0.889	11

Data show that the scale students used to evaluate the lessons about the past is a reliable measuring instrument in both groups, although the value of the Cronbach's  $\alpha$  of 0.610 in the control group points to a slightly lower homogeneity of items.

#### *Sample*

The sample comprised 124 third grade students of primary schools in Sombor. The experimental group consisted of 61 (49.13%) students, 36 (59.02%) girls and 25 (40.98%) boys; the control group consisted of 63 (50.87%) students, 34 (53.97%) girls and 29 (46.03%) boys.

#### *Data Processing*

Data were processed and interpreted using item-analysis and the statistical method of principal component analysis. In addition to defining measures of frequency (frequencies and percentages) and descriptive statistical methods (mean, standard deviation), a chi-squared test  $\chi^2$  was used to determine the significance of differences between observed and expected frequencies. Univariate analysis of variance (ANOVA) with one factor was used as a univariate statistical measure. The reliability of the questionnaire was checked using Cronbach's coefficient, based on the internal consistency of the entire instrument.

### *RESULTS*

The instrument for evaluating the lessons about the past is divided into three subscales with a total of 11 items, which the students used for evaluations of: readiness to continue research of sources, ability to actively construct new knowledge, and social skills.



*Table 2. Distribution of answers given by students from the E and C groups on the evaluation scales*

C-group	Mean	SD	E-group	Mean	SD
1. Evaluation: encouragement for continued research of historical sources – We used different sources in class	2.6508	1.25927	1. Evaluation:: encouragement for continued research of historical sources – We used different sources in class	3.9672	.96553
2. Evaluation: encouragement for continued research of historical sources – I wanted to find new sources	3.0794	1.28643	2. Evaluation: encouragement for continued research of historical sources – I wanted to find new sources	4.4754	.59460
3. Evaluation: encouragement for continued research of historical sources – I independently researched other events as well	3.0476	1.06904	3. Evaluation: encouragement for continued research of historical sources – I independently researched other events as well	4.3279	.78996
4. Evaluation: active construction of knowledge – The instructional content appeared very real	3.2222	1.22401	4. Evaluation: active construction of knowledge – The instructional content appeared very real	3.9672	1.09495
5. Evaluation: active construction of knowledge – I imagined places, people, and events with ease	3.3175	1.17536	5. Evaluation: active construction of knowledge – I imagined places, people, and events with ease	4.0328	1.18275
6. Evaluation: active construction of knowledge – I imagined conversations with the actors of the past	3.0159	1.36183	6. Evaluation: active construction of knowledge – I imagined conversations with the actors of the past	4.0328	1.11006
7. Evaluation: active construction of knowledge – I was active in classes	3.3968	1.07072	7. Evaluation: active construction of knowledge – I was active in classes	4.3443	.92889
8. Evaluation: social skills – I wanted to show to others what I had researched	3.3492	1.25927	8. Evaluation: social skills – I wanted to show to others what I had researched	4.1148	1.06612
9. Evaluation: social skills – I discussed what we had learned with my friends after class	3.3810	1.14199	9. Evaluation: social skills – I discussed what we had learned with my friends after class	4.3770	.85953
10. Evaluation: social skills – I want to continue to study the past with my friends	3.6190	1.31282	10. Evaluation: social skills – I want to continue to study the past with my friends	4.2623	.99836
11. Evaluation: social skills – I acknowledge the suggestions of others that we should research...	3.3333	1.24434	11. Evaluation: social skills – I acknowledge the suggestions of others that we should research...	4.3279	1.04437

Table 2 shows the corresponding means and standard deviations on the scale (N=124).

Table 3. Evaluations of students for the claim  
We used many different sources

	I completely disagree	I disagree	I can't decide	I agree	I completely agree
C – group	15 (23.8%)	13 (20.6%)	20 (31.7%)	9 (14.3%)	6 (9.5%)
E – group	0	0	3 (4.9%)	26 (42.6%)	32 (52.5%)

The claims in the first subscale referred to the students' evaluations of whether lessons about the distant past encouraged them to continue to research historical sources. The evaluation results for the claim *We used many different sources in order to understand the teaching material about the past* are shown in Table 3. Data show that only a small number of students who worked in the traditional manner thought that there were many different sources during lessons (*I agree* – 14.3%, *I completely agree* – 9.5%), while as many as one third of these students were unable to evaluate this claim. In the experimental group, there were no evaluations stating *I strongly disagree* or *I disagree*, 4.9% were undecided, while 95.1% of students agreed with the claim to a greater and more complete extent.

Table 4. ANOVA test

	Sum of squares	df	M	F	p
Between groups	10.065	3	3.355	4.169	0.010
Within a group	45.869	57	0.805		
Total:	55.934	60			

The results of the ANOVA test of the effects between subjects indicate a statistical significance:  $F(3,57) = 4.16$ ;  $p = 0.010$  (Table 4.). The size of the significance of the differences between group means, expressed by eta coefficient, is high ( $\eta = 0.18$ ).

The responses to the claim *I independently researched historical events during classes* in the control group show the result:  $\chi^2(4) = 5.175$ ;  $p = 0.270$ ;  $M = 3.0794$ ,  $SD = 1.28643$ . The results for the responses of students from the experimental group show statistical significance:  $\chi^2(2) = 23.049$ ;  $p = 0.00$ ,  $M = 4.4754$ ,  $SD = 0.59460$ ; this shows that the students who learned according to a model that included singing and visualizing historical content independently researched content during classes to a significantly greater extent.

Results of the first subscale ( $F = 4.169$ ;  $p = 0.010$ ) on the effects between the scale subjects determined that the students from the experimental group estimated that they were significantly encouraged to continue to research

the past after the classes during which they studied the thematic unit *Our Heritage – Then and Now*. During lessons, they were encouraged through singing songs and displaying of various historical sources, which motivated them to continue to independently research and discover other evidence from the past. The results confirm that the lessons about the past need to be modelled in a way that ensures that the students increase their historical knowledge and gain experience of working with historical sources, and achieve critical reflection and a sense of mutual understanding, dialogue, and social and democratic involvement (Milutinović, 2006). During the acquisition of historical content students are taught to be *open-minded*, to make decisions based on incomplete data, and to revise their conclusions if new sources emerge. In this way, reconstruction of the past becomes an intellectual task of discovering the whole based only on some of its parts (Pešikan, 1996).

The overall results obtained in this part of the research confirm the first specific hypothesis that *the students who study according to the experimental model are more significantly encouraged to continue to independently research historical sources during lessons*.

Student evaluations on whether lessons about the past motivated them in their active construction of knowledge about the past were examined next. The subscale consisted of four items. The results were analysed by calculating the summation score obtained on a scale for each of the required attitudes and by determining their descriptive parameters. A ranking method was used in order to compare the results with one another, but also to determine their individual representation. The minimum value for each of the items is min=1, which represents a complete absence of the significance of the given claim, while the maximum value is max=5. The ranked overall results for the claim in question are shown in Table 5.

*Table 5. Ranking of students' evaluations: active construction of knowledge*

	N	M	SD
Evaluation of the degree of agreement – active construction of knowledge:	C-63	3.2222	1.22401
	E-61	3.9672	1.09495
The instructional content appeared very real.	C-63	3.3175	1.17536
Evaluation of the degree of agreement – active construction of knowledge: I imagined places, people, and events with ease.	E-61	4.0328	1.18275
Evaluation of the degree of agreement – active construction of knowledge: I imagined conversations with the actors of the past.	C-63	3.0159	1.36183
	E-61	4.0328	1.11006
Evaluation of the degree of agreement – active construction of knowledge:	C-63	3.3968	1.07072
I was active in classes.	E-61	4.3443	.92889
Total:	124		

Analysis of results reveals that the most represented evaluation is that of the claim *I was active in classes*, among the respondents from the experimental group (M=4.34). High values of arithmetic means are observed for the remaining three claims: 1) *I imagined places, people, and events with ease* (M=4.03); 2) *I imagined conversations with the actors of the past* (M=4.03); and 3) *The instructional content appeared very real* (M=3.96). Based on these results, it can be concluded that students strongly feel that they actively constructed knowledge about the past during lessons. The students from the control group also evaluated the claim that they were active in classes as the most significant, although the summation scores in this group were considerably lower.

Research results also show that the students think highly of the ability to actively construct knowledge about the past during lessons. Students from the experimental group estimated that they understood the content during classes in which they learned new content about the distant past, and that it appeared real to them and that they imagined historical places, actors, and events with ease, which ultimately contributed to their being active in classes. These results confirm that the mere exposure to information in the process of teaching is not sufficient in itself and that it is necessary to find ways or bridges between what the student already knows and the new content (Piaget & Inhelder, 1978). One of the possible ways is teaching filled with positive feelings such as excitement and interest, joy in the discovery of new knowledge, involvement of students in various activities, and enjoyment in working (Huss & Aberšek, 2007). According to Jovan Đorđević, teaching is never a question of achieving certain results or the subjective discovery of the truth, but of the research process, which enables students to independently apply certain procedures during the acquisition of knowledge and its application (Đorđević, 2009), whereby the socio-cultural environment in which a student constructs new knowledge has great significance (Piaget; in Baucal, 2003). Recent studies on the developmental achievements of children are in favour of early acquisition of social skills and knowledge about society (Abbott et al., 2008). School is considered an environment supportive of the skills of an individual's social activity (Cameron et al., 2005), so it is already possible to impact further development of social knowledge and skills with planned and systematic action in class teaching. In other words, "in order for children to be sensitized to changes of social reality, they need to be systematically trained to solve social problems" (Mlinarević et al., 2007). One should not ignore the fact that students do not simply acquire social concepts, but that there is a gradual and continuous inclusion of their knowledge about experiences of the world around them and the communicative interaction with others about that experience (Carpendale & Lewis, 2004).

The second specific hypothesis of this research, which stated that *the students who study according to the experimental model consider*

*themselves significantly encouraged to actively construct knowledge*, was also confirmed.

Claims in the last part of the scale evaluated social skills that, in the opinion of students, were encouraged during lessons about the past. The analysis of percentage results shows that the students from the control group significantly expressed positive attitudes only towards the claim *During lessons about the past I wanted to study the past with my friends* (31.7%). A significantly lower percentage of them opted for the evaluation *I completely agree* regarding other claims. It is also noticeable that the answers *I can't decide* on this scale are significantly represented in all of the claims in the control group, which, expressed in percentages, amounts to 36.5%, 38.1%, 25.4%, and 27%. Unlike the control group, in the experimental group a significant percentage of such answers was present only for the claim *I wanted to show to others what I had researched* (16.4%). The largest percentage of students from the experimental group evaluated that they *completely agree* with the claim *I acknowledged the suggestions of others that we should research* (60.7%).

Students from the control group were mostly uncertain when claiming that lessons about the distant past encouraged them to follow the suggestions of others to research historical content together (79.4%), whereas students from the experimental group opted for answers *I agree* and *I completely agree* in 83% of the cases. The ranking method was applied next in the experimental group.

Results of the students' evaluation of social skills demonstrated during lessons about the past on the third subscale confirm that, encouraged by musical experiences and image presentations, the teaching of *Science and Social Studies* can encourage the expression of social skills. In the experimental group, all four of the claims on this subscale had high statistical significance. The highest values were observed for the claims *I discussed what we had learned with my friends after class*:  $\chi^2(4)=69.082$ ,  $p=0.00$ , and *I acknowledged the suggestions of others*:  $\chi^2(4)=70.393$ ,  $p=0.00$ , especially the latter claim, which was evaluated as the most significant in the control group as well:  $\chi^2(4)=26.603$ ,  $p=0.00$ . The result can be connected with the fact that an interest for learning about the past, its actors and events, appears naturally in the early school age (National Curriculum Standards for Social Studies, 1988; Turner, 2003; Joyce, 1970). The interest for events from the past is not significantly related to a model of teaching during which the past is taught, but it is a developmental characteristic of this age. The final part of the research, in which the students from the experimental group estimated that they gladly acknowledged suggestions of their friends and collaborated on the work during classes, confirmed that a social reaction can be considered a significant foundation during the study of historical content, which has also been confirmed by other studies (Spodek et al., 1984).

Table 6. Measures of descriptive statistics for the students' evaluations:  
social skills – experimental group

	N	Rang	M	SD	Skewness	Kurtosis
Evaluation of the claim: I wanted to show to others what I had researched.	61	4.00	<b>4.1148</b>	1.06612	<b>-1,174</b>	0.858
Evaluation of the claim: I discussed what we had learned with my friends after class.	61	4.00	<b>4.3770</b>	0.85953	<b>-1.802</b>	3.935
Evaluation of the claim: I want to continue to learn about the past with my friends.	61	4.00	<b>4.2623</b>	0.99836	<b>-1.700</b>	2.814
Evaluation of the claim: I acknowledged the suggestions of others that we should research.	61	4,00	<b>4.3279</b>	1.044	<b>-1.702</b>	2.3666
Total:	61					

The claim *I discussed what we had learned with my friends after class* has the highest mean value – 4.3770 (SD=0.85953); the remaining claims have high means. A negative asymmetry with results to the right from the middle value confirms high values. The flattening confirms the stated conclusion (positive for all claims) (Table 6.).

This confirms the third specific hypothesis, according to which *the students who study according to the experimental model evaluate that they successfully cooperated with friends during lessons (researching sources, exchanging ideas)*.

### CONCLUSION

The aim of this research was to examine the students' evaluations regarding the acquisition of content about the past while following a teaching model that includes vocal reproduction and audio-visual perception, as compared to traditional teaching. Many research results that consider the effect of various innovative teaching models on students' educational achievements can be found in literature in this field (Jeremić 2012; Mišćević Kadijević, 2009; Trbojević, 2010). Less known are the studies in which students had a chance to evaluate teaching and its different aspects. The conducted experimental research presented here revealed the evaluations of students about the teaching of the *Science and Social Studies* subject, during which content about the past was taught.

The acquisition of social concepts accompanied by vocal reproduction, VMP, and audio-visual perception (image and sound) is directed towards active recognition of knowledge through the senses. The method of reproducing, interpreting, and analysing instructional content

presents music as the sum of aural stimuli, tone, harmony, and rhythmic forms, which have an impact on emotions. When knowledge is shaped using this approach, then it is conscious and based on experience, emotions, and quality. This means that the functional foundation of the knowledge level is *the world of children's imagination*.

The concept of initiated reforms in Serbia exposed the problem of how to create a good and functional educational system in a rapidly changing society. It has become undeniable that qualitative dimensions of teaching and learning must assume special significance during formal institutional schooling. Relevant literature mainly refers to studies in which the effects of different innovative models were determined in relation to the educational achievements of students. This research focused on students' perception of teaching. It was determined that the teaching model that includes vocal reproduction and audio-visual perception synchronized through multimedia presentations allows students to understand the past in a more comprehensive way. The past is not a physically observable phenomenon, and it involves research of sources, interpretation of evidence, and construction of new knowledge during collaborative learning (Blagdanić, 2008). Historical content is found in school curricula from the early school age, especially in the teaching of *Science and Social Studies* course, which has a task to contribute to the development of social knowledge and to the formation of social norms and values. Therefore, there is a constant need to devise new and more efficient methodological ways for teaching such content.

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## **МУЛТИМЕДИЈАЛНИ ПРИСТУП РАЗВИЈАЊУ ДРУШТВЕНИХ ПОЈМОВА У РАЗРЕДНОЈ НАСТАВИ – ПОГЛЕД ИЗ УГЛА УЧЕНИЧКЕ ПЕРЦЕПЦИЈЕ**

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### **Резиме**

Савремена друштва у образовању препознају опредељујући развојни фактор и пут ка остварењу друштва знања, те се правац реформи усмерава појединцу који образовањем треба да се оспособи за стицање, активирање и примену знања у циљу личног и друштвеног напретка. Док је друштвена заједница посебно заинтересована за стицање основне образовности појединца и опредељена ка школи која се, осим на променљивим друштвеним знањима, темељи на разумевању сложених друштвених односа и развоју делатних социјалних вештина, отворено је питање у којој мери данашње школе одговарају на ове потребе. Садржаји на основу којих се развијају друштвени појмови (као што су: породица, школа, завичај, прошлост, значајни датуми, занимања људи, развој друштва) укључени су у програме предмета разредне наставе, те су на тај начин значајније присутни већ на раном школском узрасту. Данашњи теоретичари у нашој земљи покрећу захтеве да школско поучавање имплементира образовне моделе који подразумевају: појмовну организацију наставних садржаја, корелацију и интеграцију постојећих са новим ученичким сазнањима, изграђујући на тај начин системе појмова.

Сврха овог рада јесте испитивање могућности ефикаснијег утицаја на развијање друштвених појмова, разумевање сложених друштвених односа и развој делатних социјалних вештина помоћу експеримента са паралелним групама ( $K=63$ ,  $E=61$ ). Спроведеним истраживањем утврђене су процене ученика о реализованој настави Природе и друштва у којој су изучавани наставни садржаји о прошлости. Са претпоставком да је за њихово суштинско разумевање и ефикасну примену на млађем школском узрасту опредељујући начин презентације, унети су нови елементи са становишта наставних садржаја и њиховог представљања. У фокусу је доживљај прошлости подстакнут вокалном репродукцијом и аудиовизуелном перцепцијом. Процена часова извршена је упитником за ученике Ликертовог типа (субскеале: даље истраживање извора, активна конструкција знања, социјалне вештине).

Полазиште за истраживање чине ауторски ставови према којима је процес учења и поучавања о потребно мотивисати подстицањем дечије радозналости и интересовања за упознавање света у коме живе и његовим друштвеним обележјама која су се временом мењала. Резултати потврђују ауторске ставове да настава у којој се усвајају садржаји о прошлости треба да буде моделована тако да обезбеди не само да ученици увећавају историјска знања, већ и да стичу искуства рада на историјским изворима. Утврђено је да постоји статистички значајна разлика у ефектима између субјеката контролне и експерименталне групе:  $F(3, 57)=4,169$ ,  $p=0,010$ ,  $\eta^2=0,18$ ). Ученици експерименталне групе проценили су да су током часова усвајања наставних садржаја о далекој прошлости разумели садржаје и да су им они деловали стварни, да су са лакоћом замишљали историјска места, јунаке и догађаје, што је на крају допринело да на часовима буду активни. Резултати процене ученика о испољеним социјалним вештинама током наставе о прошлости потврђују да уз подстицај музичким доживљајима и сликовним приказима, настава Природе и друштва може да подстакне испољавање социјалних вештина. У експерименталној групи све четири тврдње ове субскеале су биле високе статистичке значајности. Највеће вредности за процену Са друговима сам и после наставе разговарао о ономе што смо учили:  $\chi^2(4)=69,082$ ,  $p=0,00$  и Уважавао сам предлоге других:  $\chi^2(4)=70,393$ ,  $p=0,00$ , која је и у контролној групи најзначајније процењена  $\chi^2(4)=26,603$ ,  $p=0,00$ ; потврђују да, уз подстицај музичким доживљајима и сликовним приказима, настава Природе и друштва може да подстакне испољавање социјалних вештина.

Овим испитивањем фокусиран је угао ученичке перцепције наставе. Утврђено је да наставни модел који укључује вокалну репродукцију и аудиовизуелну перцепцију синхронизовану кроз мултимедијалне презентације омогућава ученицима целовитије разумевање прошлости. У овом истраживању приказан је модел наставе који обједињује чулне утиске који је омогућио целовито разумевање историјских појава и процеса, и њихову интеграцију у комплексну слику света. Наиме, историјски садржаји присутни су у школским курикулумима раног школског узраста, посебно у настави Природе и друштва која има задатак да доприноси развоју друштвених знања, формирању друштвених норми и вредности, због чега потреба за осмишљавањем нових и ефикаснијих методичких путева у њој мора бити трајна.