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PLAYING INSTRUMENT IN THE MUSIC CULTURE TEACHING: AN OPPORTUNITY OF ACTIVE PERCEPTION AND UNDERSTANDING OF MUSIC

Abstract

In this article we focused on the relationship between pupils' instrument playing during music lessons in primary school and understanding of musical works. The research question is whether playing an instrument helps in better understanding of musical works. We presume that playing musical instruments during music lessons contributes to understanding of particular musical components such as rhythm, melody, tempo and dynamics. The aim is not only to develop pupils' music-playing skills, but also to contribute to their musical development by understanding music.

The experimental study comprised fourth-grade primary school pupils divided into two groups that included 25 ten-year-old pupils. Within the experimental study, the initial state of both groups was determined first by polling, and then a new variable (playing an instrument) was introduced to the experimental group. One class (control group) had music lessons without using instruments (synthesizers), and the other class (experimental group) with the use of synthesizers. The results achieved by systematic observation, polling, audio recording of performances and exams (final state) show that during one school year the experimental group pupils learned to play simple compositions by reading notes and were also better at perceiving, remembering and understanding musical components: rhythm, melody, tempo and dynamics.

Key words: primary school, music education, playing instruments, understanding music, research

Izvleček

Igranje inštrumenta pri pouku glasbene kulture: priložnost za aktivno zaznavanje in razumevanje glasbe

V prispevku obravnavamo povezavo med inštrumentalno igro učencev pri glasbenem pouku v osnovni šoli in razumevanjem glasbenih del. V raziskavi ugotavljamo ali igranje na inštrument pripomore k boljšemu razumevanju glasbenih del. Domnevamo, da igranje na inštrumente pri pouku glasbe prispeva k razumevanju posameznih glasbenih komponent: ritma, melodije, tempa in dinamike. Cilj dejavnosti ni le v razvoju veščin igranja na inštrument, temveč omogočanje razumevanja glasbe in podpiranje glasbenega razvoja učencev.

V eksperimentalni študiji so sodelovali učenci četrtega razreda osnovne šole, razdeljeni v dve skupini: v vsaki je bilo 25 desetletnih učencev. V raziskavi je bilo najprej preučeno začetno stanje obeh skupin. V eksperimentalno skupino je bila nato uvedena nova spremenljivka: igranje na inštrument. En razred (kontrolna skupina) pri glasbenem pouku ni uporabljal inštrumenta (sintetizatorja), drugi razred (eksperimentalna skupina) pa je pri pouku uporabljal sintetizator. Rezultati, pridobljeni s sistematičnim opazovanjem, s testiranjem, z avdio snemanjem izvedb in zaključnim preverjanjem, so pokazali, da se je v enem šolskem letu eksperimentalna skupina učencev naučila izvajati preproste skladbe po notnem zapisu in da so bili ti učenci tudi uspešnejši pri zaznavanju, pomnjenju in razumevanju glasbenih komponent: ritma, melodije, tempa in dinamike.

Ključne besede: osnovna šola, glasbeni pouk, inštrumentalna igra, razumevanje glasbe, raziskava

Music playing in music teaching

Music teaching in primary and secondary schools of the Republic of Croatia is organized according to the teaching plans and programs¹ that prescribe fundamental principles of teaching, field of work and work activities. The fact that music has been and still is part of the school program supports that art education is an indispensable and important part of education and development of pupils' cultural identity². Thompson, Schellenberg and Husain (2001) agree with this and point out that school and music teaching are of crucial importance for raising the level of music art in an individual and a society. However, although music has always been included in teaching programs and school curricula, quality of pupils' music education can hardly be discussed. The reasons for this can be found in a small number of music lessons (one lesson per week), large groups of pupils in a class, non-use of modern teaching technology³, as well as in the concept of music teaching itself, which has obviously not achieved relevant results.

Because of this, and supported by the reform of primary education in Croatia⁴, a new conceptual model known as the open model was introduced into music teaching. This enabled a different view of music teaching contents (the contents

¹ The Teaching Plan and Program from 2006 prescribes the field of work for the subject *Music Culture* in primary schools, whereas the program from 1994 is valid for the subject *Music Art* in secondary schools.

² The field of art gained a special place also in the National Framework Curriculum (2011): it includes Visual Arts and Design, Music Culture and Art, Film and Media Culture and Art, Drama Culture and Art, and Movement and Dance Arts.

³ This refers to technology in a broader sense: from the use of methods, forms and strategies that do not correspond to needs and interests of modern generations, to the lack of technical teaching aids.

⁴ The reform known as *The Croatian National Educational Standard* (CNES) has proposed different ways of modernizing work in primary schools an experimental program was conducted from 2004-2005, and a year later after a positive evaluation by an independent institute (Ivo Pilar Institute of Social Sciences) the program was implemented in all schools in the Republic of Croatia.

that hindered the process of music teaching through theory and verbalism, were excluded) and music fields (an obligatory field was defined, and another field was optional), with the final aim to educate competent listeners of music, as well as active participants in local musical life. The field of listening to music and introduction to music literature became dominant in music teaching, while other fields (singing, playing, musical literacy, creativity, dance, computers in music) can be selected with respect to pupils' and teacher's preferences. It is important to mention that, besides listening to music and music analysis, only one additional music field should be selected. Gembris (2006) noted that the development of pupils' musical skills is the aim of music teaching and that all the implemented activities should pursue and support this aim.

In the following we will focus on active music playing during regular classes⁵, which makes teaching interesting and close to pupils by using *live* music nature, and allows their active participation in performing and creating music. Active music engagement is exactly the most direct way of adopting musical skills and acquiring knowledge related to music. Azzara (2002) and Reimer (2003) are of the same opinion and argue that music teaching in primary schools should be focused on the performance of musical works with understanding.

Analyzing music playing in the context of music history we concluded that music education included also playing, as evidenced by the instruments like the lyre, cithara and aulos, as well as by instrumental schools, which had great importance in ancient Greece. Furthermore, the discipline of "singing artistry" in the secular education of feudal lords, did not imply only singing but also playing and creating lyrics and music. In the 17th century, instrumental teaching became a sign of a new era.

The idea of primary school pupils playing music during lessons appeared in the 18th century with philanthropists⁶, although music lessons began to be conducted in the nineteenth and especially in the twentieth century. After World War I music teaching gained new incentives, one of them being *Jugendmusikbewegung*⁷, the movement that revoked many old instruments and folk dances. In 1930s Carl Orff introduced a true reform of music teaching by his *Schulwerk*, attaching among other things great importance to music playing and improvisation.

⁵ In Croatia, beside regular music lessons (35 lessons per year, from 1st to 8th primary school grade), pupils can attend extracurricular musical activities (70 lessons per year for each activity) which can positively influence the development of pupils' musical skills. However our intention was to show that the field of playing music can be presented also within regular lessons and thus influence the development of pupils' musical skills.

⁶ *Philanthropism* – the teaching of educators of the 18th century, arguing that man is good by nature and that he needs help in development of his abilities in harmony with nature.

⁷ *Jugendmusikbewegung* – the movement of critical-minded young people in the early 20th century, sometimes politically oriented, sometimes religious, or cultural-revolutionary, but always with a common denominator – a song.

In Croatia, the organization of music teaching, as well as inclusion of playing music into teaching, started in the second half of the 20th century and has been best monitored through educational programs (Požgaj, 1988, Rojko, 1996). Playing music was for the first time mentioned in the curriculum in 1958, referring to playing of rhythm instruments. Playing was afterwards included in all later versions of the curriculum. It was advocated that instruments contribute to a faster, easier and more comprehensive understanding of music and influence children's creative activities. Požgaj (1988, 62) stressed that "playing, i.e. accompaniment of already learned songs by children's instruments (percussion), folk and popular instruments, is necessary so that pupils who for whatever reason are not able to sing, can actively participate in classroom playing". The program from 1972 proposed songs for playing for the first time. The choice of the instruments offered for playing was also new: in addition to rhythm instruments, tamburitza, mouth-piano, mouth-organ, guitar and mandolin were also proposed.

The teaching program from 2006 brought a different approach to playing music, according to which it, as being the second field of the open model, has specific opportunities for qualitative implementation. Accordingly, if playing is part of a flexible concept of music education, and if pupils are interested and motivated, and school meets all the requirements for conducting these activities, the playing music in the classroom can successfully be realized.

The reasons for the introduction of playing music in classroom teaching are as follows: it is natural for a child to be active, playing can enable learning about music, and it is a pleasant activity. Mitchell (1994) also agrees that playing instruments helps in better understanding of a musical work and its elements. Namely, by playing music a child learns, adopts and practically demonstrates the elements of music such as melody, rhythm, tempo, and dynamics. Zanutto (1997) stresses that the outcome is not only a good performance of certain musical works, but also expansion of pupils' knowledge and skills in the field of rhythm and intonation. Playing introduces them directly into the abstract world of music and directly involves them in the creation of music, whereby pupils develop their performing, but also social skills.

Playing music in the classroom has its advantages and limitations. Reich (1963) stated several arguments in favor of this activity, of which we emphasize the following: children want to be active, playing creates work habits, children can understand the essence of music more easily. Regner (1980) points out that it would be hard to imagine music teaching without musical instruments, since it is not possible to learn music without one's own activity.

On the other hand, there are also limitations in execution of playing activities, primarily in connection with poor quality and availability of instruments for classroom music playing. Rojko (1996, 122) argues that playing music at school

has no artistic value, due to three reasons: “available instruments, their poor quality and lack of time to exercise”.

Taking into account the strengths and limitations, we nevertheless believe that playing music in the classroom has more advantages than disadvantages. The goal of playing music in the classroom is not to teach pupils to play an instrument faultlessly⁸, but to make them active participants in the teaching process, to help them in better understanding of musical works by making them aware of musical elements, and to make music teaching more interesting. Smith (1984) points out that by playing an instrument, pupils are directly involved in a musical work. When playing they perceive errors ‘by hearing’ that they correct immediately, trying to find the right sound and the right note.

Although playing music in the classroom has no artistic value, it nevertheless represents satisfaction for pupils and increases the desire for a better understanding of music. Požgaj (1988, 17) points out that a child’s pleasure in playing an instrument “is a sufficient reason for considering playing as an option, and that this activity is justified”. It should be noted that pupils themselves are often motivated to play music and want to learn to play.

Research

The operative aspect of the study is associated with finding a teaching method that will give the best results in understanding of musical work by active music playing, and with respect to pupils’ age and their abilities. The fundamental aspect of the study includes monitoring the principles of acquiring knowledge by the proposed method.

The study is developmental and the method of action research has been used. Namely, novelties in educational activities are introduced, based on their scientific verification. Researchers were engaged in teaching processes, and they simultaneously examined direct teaching work. The study project was flexible, which means that certain contents were modified when required by the circumstances of the study, and other contents were introduced.

The problem of this study was to establish whether playing of musical works impacts on a better understanding of music. The aim was to develop basic music playing skills by note identification, with understanding of musical works.

Hypothesis

Musical elements like rhythm, melody, tempo and dynamics will be recognized and understood more easily, quickly, simply, directly and precisely.

⁸ It is possible to acquire advanced playing skills in state-owned music schools as well as private courses conducted by music associations.

Method

The study was conducted as an experiment with two groups. The experiment with parallel groups allowed simultaneous monitoring of the influence of different factors. The control group worked according to the open model, which consisted of listening and analysis of musical works and singing (grade 4a), while in the experimental group an experimental factor was introduced instead of singing (playing, grade 4b).

Participants

The study was conducted in a primary school in Istria in 2010. The study sample consisted of the fourth grade pupils, 25 10-year-olds.

Procedure

The work began by determination of the initial state, then an experimental factor was introduced and the final state determined with pupils of the control and experimental group.

Initial state

The initial state established pupils' musical preferences and predispositions. Pupils from the 1st-3rd primary school grade sang "by ear" during music lessons, they knew neither notation nor how to play a melodic instrument, and their culture of knowing musical works was questionable.

As the study instrument three questionnaires with different type of questions were designed and used. The questionnaire was distributed to pupils during music lessons. This was followed by the instructions for solving the questionnaire and a more detailed explanation of the questions. The pupils wrote their answers, and provided a vocal answer where needed. The study lasted for three lessons, each questionnaire one lesson.

The first questionnaire was based on the vocal realization of rhythm and melody, the second was used to check which type of music pupils listened to and whether they recognized tempo, dynamics and the difference between melodic and rhythmic elements of musical works. The results of the third questionnaire indicated a great interest of pupils for instrumental performance at school, during music lessons.

The collected data were analyzed. The data were reduced and sorted based on the qualitative analysis, and conclusions were derived. When making conclusions, pupils' overall work was considered, as well as class atmosphere, pupils' and their families' music preferences, and the level of pupils' musical skills and abilities. The following was established:

1. During music lessons in the 1st, 2nd and 3rd grade pupils mostly sang songs of different moods, children's, folk and artistic, and they listened to classical music that was proposed by the curriculum. They played neither a rhythm nor a melodic instrument.
2. At home they listened to popular music, mostly on computers, mobile phones, MP3/MP4, CDs.
3. Their musical development was influenced by the parents, brothers and sisters, but increasingly also by their peer groups.
4. Pupils had not attended a classical music concert, they did not listen to the radio and TV programs broadcasting classical music; their parents did not encourage them to learn about classical music.
5. Pupils recognized short and long tones, as well as high and low tones, and they described the character of songs in their own words; they attached different meanings to music, and got emotionally connected with the song theme.
6. Pupils were actively engaged in rhythmizing, melodizing and vocal and instrumental improvisations. They created interesting motifs and phrases.
7. Some pupils demonstrated exceptional melodiousness, some precision in rhythmic performance, while some had pronounced sensibility for musical experience.
8. Pupils enthusiastically embraced the opportunity to learn to play simple compositions at school.
9. A larger number of pupils quickly relaxed and actively participated in the work, giving interesting answers and showing genuine curiosity for what they did. However, it was noticed that some pupils would need additional motivation and incentives to get interested in music and musical contents.

Introduction of experimental factor

The experimental factor refers to playing, i.e. introduction of instruments as mediators for acquisition of musical knowledge and understanding of music. All the pupils had a synthesizer on which they learned how to play and in this way learned about musical elements.

The process of learning to play the synthesizer developed in several stages. Pupils were first introduced to the instrument: keys, meaning of the numbers on the housing, ways of changing the performing instrument, inclusion of the rhythm section, and the use of ready-made music. They tested musical and technical characteristics of the instrument and discovered its possibilities. After initial free improvisation of pupils, the teacher began with explaining the characteristics of sound such as pitch, duration, timbre and intensity. These characteristics were analyzed in several ways: by the teacher's playing (pupils recognized and analyzed a certain characteristic, and they noted it down) and

pupils' playing (one pupil played, while his desk neighbour repeated what he heard, performed by playing, or noted down).

Figure 1: Graphic markings for tone duration, pitch and intensity



Figure 1 shows the abstract graphic markings that were used. The procedure was as follows: one tone was played for the characteristic of tone duration (at any pitch) and while the tone lasted a line was drawn from the circle onwards; for pitch: tones of different pitch were played, which pupils noted down in the upper, middle, or lower part of their music manuscript book (and school blackboard), depending on whether the tone was high, low or medium high. Tone intensity was marked by coloring circles. A circle denoted a tone: an empty circle – a quiet tone (piano), a slightly shaded circle - medium loud tone (mezzoforte), and a fully colored, black circle – a loud tone (forte). Pupils experienced the characteristics of tone timbre by playing on the synthesizer and selecting various instruments on the instrument's housing.

Figure 2: Combinations of tone parameters



After analysis, playing, identifying and recording the mentioned tone characteristics, they were connected in a whole (Figure 2). Simultaneous recognizing of tonal characteristics, like duration and pitch combined, was practiced. The procedure was as follows: the initial tonal space was defined (e.g. in the middle of the music manuscript book), then a sound was produced (the teacher started playing), with a simultaneous graphic display by pupils. Afterwards the display was checked and demonstrated by playing the instrument. It is important to note that duration and pitch in this initial stage were 'measured' according to pupils' individual criteria. They 'felt and experienced' differently what was high, low, short and long on the paper and on the blackboard, but it was important for them to perceive the difference, to record it and demonstrate. For this reason, the teacher played very contrasting tones in pitch, for which the piano was particularly suitable, and the tone duration had to be different, so that the differences on the graphic markings could be easier to perceive. This was followed by further work on recognition of the same characteristics/parameters of the scale (smaller differences in pitch), with specific duration (every beat was timed along with playing, so that it was measureable when a tone lasted one, two, three or four beats).

It was continued with exploration of the musical space (staff, lines and spaces, bar, beat), introducing duple time, triple time and quadruple time meter, and accordingly, with definition of the rhythmic figures: eight notes, quarter notes, half-notes, dotted half-notes and whole notes.

Figure 3: Introduction of duple time



Figure 4: Introduction of half-note



Figure 5: Introduction of dotted half-note



Figure 6: Introduction of whole note



Figure 3, 4, 5, and 6 show the order in which various measures and rhythmic figures were introduced. The procedure was as follows: after playing eight notes that lasted one beat, we placed eight quarter notes on the first line of the staff and divided them by bar lines into four musical bars. Playing of the quarter note was practiced (Figure 3). Next lesson the teacher was playing a piece with quarter notes and half-notes. Pupils recognized that certain notes lasted one beat, while others lasted two beats, which they directly afterwards demonstrated by playing them on their synthesizer and noting down (Figure 4). It was practiced in the way that pupils themselves designed pieces with known rhythms, which they would subsequently personally perform or note down for another pupil who would perform it. Eight notes, dotted half-note (Figure 5) and whole note (Figure 6) were introduced in a similar way, so that pupils got introduced to duple, triple and quadruple times. Only the upper number of the measure was written at first, and later on the correct writing was applied, with two numbers. It is important to stress that pupils noted down everything that they performed, analyzed and recorded, and that also performed all that they recorded and analyzed.

Active instruction of the mentioned rhythmic figures was followed by repetition and practice. Rhythm practice was conducted so that pupils alone played a certain rhythm, and other pupils recognized the rhythmic value, repeated it by playing on the instrument and noted down the rhythm on the first line of the staff. The rhythms were introduced in the following order: quarter note, half-note, eight note. Rhythmic pieces were practiced on one tone, and later, when repeating and identifying pieces the pitch was changed, which during making music of the class resulted in harmony, triple chords at all scale steps. This was conducted so that one group played for example the tone C, the other group the tone E, and the third group the tone G or D-F-A, E-G-H, F-A-C, etc. Playing of dotted half-notes and whole notes was practiced in the same way. The examples were increasingly varied and rhythmically richer, and the melody performed by the teacher gave the feeling of playing a real piece of music: the teacher with the main melody, and the pupils with a rhythmic-harmonic accompaniment.

The next stage included learning the notes. The knowledge of rhythm and intonation acquired in this way leads to *apparent music literacy*, i. e. to knowledge about how the notes are called, on which line or space they are placed, what is their duration and which key should be pressed to play the note that had been written.

The song from the musical *The Sound of Music* by R. Rodgers (Do, Re, Mi) was used for introduction into musical notation. After singing the song by text, the solmization names of the notes were pointed out in the way that pupils sang only solmization syllables from the composition, and the rest of the text they sang 'in themselves'. The teacher played the melody and the song in its entirety. It was followed by singing of the scale sequence, i.e. tones arranged in sequence for

students to memorize and become aware of the sequence of tones ascending and descending, as well as of their names. After singing the sequence, the notes were written on the blackboard, from the lowest to the highest, so that pupils could play all the C major scale tones, according to the notes. The scale sequence was practiced by singing and playing music, changing rhythmic structures, lasting from one to four beats. It should be stressed that the solmization name of the tone was replaced by the alphabetical name in order for each note to have a defined and always the same name associated with only one key of the synthesizer. After this, playing was practiced on didactic examples prepared by the teacher. Besides playing, special attention was paid to melodic motion and rhythmic value in each example.

Figure 7: Didactic examples for playing according to musical notation

Figure 7 displays eight musical staves, each illustrating a different rhythmic pattern for playing a scale. The staves are arranged vertically and show various rhythmic values and melodic lines in different time signatures (4/4, 3/4, 2/4, 3/8, 2/8, 3/8, 3/4, 4/4).

Figure 7 shows nine examples according to which the basic skill of playing music was practiced, with the aim of understanding the musical work. The first example is characterized by a step-wise motion to the third with two leaps, in the second example the melody is designed mainly in the thirds, but also in the seconds, and with a leap in a fifth, and the repeat sign is introduced. In the third case the motion is step-wise, then in thirds, and in the fourth case larger leaps are present, while the fifth example brings a more complex melody within the pentachord. The sixth example is characterized by the rhythm of eight notes, combinations of leaps in a third within the quintachord of the first grade, as well as by shorter step-wise motion. The seventh, eighth and ninth piece, unlike the previous examples, are based on the upper tetrachord of the C major scale, and the measure is recorded in its full form. The seventh example introduces corona in the last beat, the eighth example has a richer melody (from C1 to C2) and rhythmic structures are combined, while the ninth example combines leaps, gradual duration and shorter rhythmic values.

The process of learning the examples is the following: first the notes are read using the alphabet, then the teacher analyzes the duration of the notes with the pupils and every bar is read by the alphabet in the rhythm, in continuation until the end of the examples. This is followed by playing of one bar, then the other, and then by connection of double bar in one unit and so on: double bars are connected in a small musical phrase. The pupils practice individually, the teacher controls and helps them.

Didactic examples should be designed in the way that they are not too hard or too easy for pupils, and that they have an interesting melodic line with simple rhythmic figures. By playing and listening to what they perform, pupils will learn to distinguish correct from incorrect performance, they will be able to practice individually at home, to develop their music playing skills and to understand the music they play.

Didactic examples are followed by playing of shorter and simpler pieces of art and popular music. Pupils get introduced to pieces of music by listening, either played by the teacher or from a sound carrier, *You Tube* or similar. Pupils are given notations that are analyzed together (alphabet, rhythm, melodic motion, tempo and dynamics), which is followed by playing. It is important that the teacher helps, corrects and directs pupils, since not all pupils in the classroom are equally skilled or have the same pace of learning. The pupils who know how to play can practice also harmonic accompaniment of the song.

When teaching playing, special attention is paid to the analysis and demonstration of different melodic lines (ascending, descending, leaping, step-wise, within tonality, outside tonality, in different extent of the melody) and rhythmic structures (simple and complex rhythms, dotted rhythms). Tempo

(adagio, andante, allegro) and dynamics (p, mf, f) terms are introduced, also the repeat sign, corona, legato and staccato playing.

Results

Final state

At the end of the school year the final state was established. The results of raising awareness of musical elements (rhythm, melody, tempo, dynamics) with the experimental group were compared in relation to the control group. Both groups were equal in relation to the contents prescribed by the Teaching Plan and Program from 2006. The teaching program for the fourth grade identifies four fields: singing, listening and exploring music, performing music, notation and music games. It should be stressed again that in the work according to the open model, besides listening to music (a dozen of musical works), only one additional field is selected. Thus, in the control group singing was selected, and in the experimental group pupils' playing music. The singing repertoire was mainly the same as with playing. According to the program, the aim with singing is knowledge of least 15 songs, beautiful and expressive singing, clear pronunciation and understanding of the text, and distinction between melody, rhythm, tempo and dynamics. In addition to the songs from the proposed curriculum and the songs from the textbook, other children's, folk and artistic compositions were used, paying attention to the fact that pupils can learn to play them (simple melodic lines and known rhythms). However, not all songs could be played because of their difficulty, and therefore certain songs were used only for the field of singing in the control group. The same task as with singing (distinction between melody, rhythm, tempo and dynamics) applied also for the experimental group (playing), but the approach was significantly different, and there was a greater emphasis on independent work and a lot more activity and engagement of pupils. The common premise was that lessons in both classes were presented according to the same pedagogical principles. The work with pupils was directed toward acquisition of best possible and qualitative knowledge that could be practically demonstrated. By adoption of new notions in the field of music culture pupils began to develop their own musical abilities.

Table 1: Research findings

Control group	Experimental group
both classes had achieved an enviable level of knowledge of musical elements (rhythm, melody, dynamics, tempo)	
contents were taught both in the control and in the experimental group: duple time, triple time and quadruple time measure, melody, rhythm, tempo, dynamics, repeat sign, corona, double bar, small musical phrase	
all elements were learned at the level of recognition, and not all elements could be demonstrated	high level of understanding (and application) of musical elements
despite the fact that they knew what tempo and dynamics were, they were not able to apply them individually on a new composition	much better identified and remembered musical concepts that they were able to demonstrate in other songs
	learned to play simple songs by notes
	basic playing skills

In the final oral examination the level of achievement of the experimental and control group was established (Table 1). The results showed that the pupils of both classes had achieved an enviable level of knowledge of musical elements (rhythm, melody, dynamics and tempo), and the pupils of the experimental group also basic playing skills. The biggest difference was in the level of pupils' knowledge. The results of the experimental group showed that pupils in the course of one school year not only learned to play simple songs by notes, but they also much better identified and remembered musical concepts that they were able to demonstrate in other songs. Pupils were trained to analyze music independently and to play simple songs by musical notation. By conscious work and through playing music they acquired the basics of musical language, which resulted in high levels of understanding (and application) of musical elements. They learned to play the C major and A minor scale and songs in C major and A minor, they got introduced to duple, triple and quadruple time, they learned to recognize and perform simple rhythmic figures, as well as to identify and use the underlying tempo and dynamics signs. They became aware of measure, rhythm and notation, and they achieved a level of concrete knowledge that could be applied.

The effectiveness of the model of playing is reflected in pupils' special concentration on the subject matter, in their conscious and hands-on work, increased activity, recognition of mistakes and learning from them, self-activity, better understanding of the learned knowledge and better use of the acquired knowledge. Pupils learn through instruments, and they practically demonstrate

what they have learned.

References

- Azzara, C. D. (2002): In: Colwell, R; Richardson, C. (Eds), *The new handbook of research on music teaching and learning* (pp.171-187). New York: Oxford University Press.
- Davies, S. (2006): *The Philosophy of Art*. Oxford: Basil Blackwell.
- Gembris, H. (2006): The Development of Musical Abilities. In: Colwell, R. J. (Ed.), *MENC*
- Handbook of Musical Cognition and Development (pp. 124-164). New York: Oxford University Press.
- Mellor, E. (1999): Language and music teaching; the use of personal construct theory to investigate teachers' responses to young people's music compositions. *Music Education Research*, 1, no. 2, 147-158.
- Mitchell, D. L. (1994): The relationship between rhythmic competency and academic performance in first grade children. Doctoral dissertation, University of Central Florida. *Dissertation Abstracts International*, 55 (09), 2711A.
- Nacionalni okvirni kurikulum za predškolski odgoj i obrazovanje te opće obvezno i srednjoškolsko obrazovanje (National Framework Curriculum; 2010)*. Zagreb: Ministarstvo znanosti, obrazovanja i športa.
- Nastavni plan i program (The Teaching Plan and Program; 2006)*. Zagreb: Ministarstvo znanosti, obrazovanja i športa.
- Požgaj, J. (1988): Metodika nastave glazbene kulture (*Didactics of teaching music culture*). Zagreb: Školska knjiga.
- Reich, T. (1963): Bavljenje muzikom oblikuje čovjeka (*Engaging music shapes man*). *Muzika i škola*, 2, 59-61.
- Reimer, B. (2003): *A philosophy of music education: Advancing the vision*. Upper Saddle River, New Jersey: Prentice Hall.
- Regner, H. (1980): Pedagoške zamisli Carla Orffa – in kaj je iz njih nastalo (*Carl Orff pedagogical ideas*). *Grlica*, 4/5, 21.
- Rojko, P. (1996): Metodika nastave glazbe: teorijsko-tematski aspekti (*Methods of teaching music: theoretical and thematic aspects*). Osijek: Sveučilište J. J. Strossmayera.
- Smith, W. F. (1984): Utilizing the arts in general education process to integrate the performing arts into the junior high school (7-9) humanities curriculum plan at the East Harlem performing arts school (New York). Doctoral dissertation, Columbia University Teachers College. *Dissertation Abstracts International*, 45 (08), 2435A.

Thompson, W. F.; Schellenberg, E. G. & Husain, G. (2001): Arousal, mood and the Mozart effect. *Psychological Science*, 12, 248-251.

Zanutto, D. R. (1997): The effect of instrumental music instruction on academic achievement (high school students). Doctoral dissertation, The University of California at Davis. *Dissertation Abstracts International*, 58 (10), 3871A.