

Teaching Methodology of Music Education

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SUCCESS OF TWO GENERATIONS OF STUDENTS IN MUSIC COURSES IN THE PROGRAM OF TEACHER EDUCATION PRIOR TO AND AFTER THE IMPLEMENTATION OF THE BOLOGNA DECLARATION

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***Summary** - The aim of the research was to test whether students who enrolled in the program for the education of teachers and attended music courses prior to the application of the principles of the Bologna Declaration are less successful than students who have had music courses after the implementation of the program of study according to the Bologna Declaration. The research comprised of 152 students, students in their final year of study, and primary school teachers. The data were collected using the method of data collection from existing documentation, its comparison and analysis. This research established the presence of a significant difference in the achievement of students in music courses individually and in groups prior to and after the implementation of Bologna. The results established the need for further research regarding the development of the system of higher education in Croatia.*

***Key words:** achievement, music courses, Bologna Declaration, studying under the Bologna system, integrated teaching*

INTRODUCTION

The implementation of the principles of the Bologna declaration in higher education

Changes in the organization of universities and the educational processes of European universities introduced three basic declarations: World Declaration on Higher Education for the 21st Century (Paris, October 5-9, 1998), Sorbonne Declaration on Harmonization of the Architecture of the European Higher Education System (Germany, France, England and Italy, Paris, Sorbonne, May 25, 1998) and the Bologna Declaration on the European Higher Education Area (Bologna, June 19, 1999). The Bologna Declaration was signed by fifteen European ministers of higher education.

The common declaration of European ministers of higher education signed in 1999 in Bologna emphasizes the central role of the university in the development of a European culture circle. ‘‘European higher education institutions accepted the challenge and took on the main role in developing the European system of education according to the basic principles outlined by the Magna Charta Universitatum signed in Bologna in 1988. That is extremely important since the independence and autonomy of universities enable the system of higher education and research to continually adapt to the needed changes, social demands and the advancement of scientific findings.’’ (University Gazette, XLVI, 2000.)

Program of study according to the Bologna principles at the Faculty of Teacher Education, University of Zagreb

The Bologna process at the Faculty of Teacher Education began in the 2005/06 academic year when the first generation of students enrolled into the five-year integrated undergraduate and graduate university program of study (0+5). At that time the music course offerings were transferred from the first, second and third year into the second, third and fourth year of the program of study. The music courses were continued in the same sequence as before implementing Bologna: Music education and Instrumental practicum/Music practicum (simultaneously), followed by the course Music teaching methodology.

Prior to the application of the Bologna program of study music courses were offered in the following order:

Semester	Music courses
I.	Music education Instrumental practicum
II.	Music education Instrumental practicum
III.	Instrumental practicum

IV.	Instrumental practicum Music teaching methodology
V.	Music teaching methodology
VI.	Music teaching methodology
VII.	/
VIII.	/

After the implementation of the Bologna program of study music courses are offered in the following way:

Semester	Music courses
I.	/
II.	/
III.	Music education Music practicum
IV.	Music education Music practicum
V.	Music practicum
VI.	Music practicum Music teaching methodology
VII.	Music teaching methodology
VIII.	Music teaching methodology
IX.	/
X.	/

The achievement of students in music courses in both generations studying primary teacher education is, among other, related to the environment of other courses (program of study) which students attend at the same time. According to Čudina-Obradović and Brajković (2009, 23) integrated teaching can be defined as "...planning and organizing the teaching process in which two different disciplines are linked with the aim of achieving deep understanding of particular content and at the same time acquiring literacy skills in reading, mathematics, science, IT and art as well as critical thinking skills and creative thought." The integrated approach to the program of study in that case implies a didactic transfer of acquired knowledge and skills to other courses as well as the development of intersubject and intrasubject relationships among courses attended simultaneously. An example is that students in the first year of the primary education program (Bologna) attend an additional course Psychology of learning and teaching. Students in the second year of the primary education program of study (Bologna) attend a course History of schooling. In the third year the same students attend the course Assessment in primary education and Sociology of education, whereas in the fourth year of study they attend the course Quantitative and qualitative methods. All those courses have a positive influence on understanding and resourcefulness for the majority of music courses in this program of study.

RESEARCH PROBLEM

The research problem investigated is whether students in the program for teacher education who have attended music courses in the first, second and third year are less successful than students of primary education who have attended music courses in the second, third and fourth year of study.

The new Study and Examination Rules at the university integrated undergraduate and graduate program of study at the Faculty of Teacher Education, University of Zagreb clearly define the requirements for attending particular courses and the order in which they can be attended. Exams must be taken after attending the course where the course Instrumental practicum/Music practicum which is integrated in the exam Music education and Music teaching methodology must be passed prior to the mentioned courses. This regulation greatly increases the achievement and understanding of other courses related to music. Therefore, students who have not passed the exam Instrumental/Music practicum were not as successful in their exam Music education since they lacked the knowledge and skills of playing an instrument which are an integrated part of the course Music education.

Students who have attended music course lectures, who have attended concerts organized by Glazbena Scena (Eng. *Music scene*), who have regularly played, sang, completed homework for the course Music education and completed teaching preparations for lessons (both individual lessons and formal lessons) – one per semester and who have regularly written accounts of the teaching in the course Music teaching methodology were successful in those course exams. Their success is presented using grades 2-5.

With the implementation of the Bologna principles a new and fairly unexplored teaching practice was initiated. Considering that the first generations of Bologna students at the Faculty of Teacher Education has just completed their music course requirements there are no research papers written on that subject. It will take years and generations of Bologna students before we will be able to systematize the foundations for a theoretical awareness of the success of such a system of education at the university level.

RESEARCH AIM

The aim of this research was to test the relationship between student success in music courses prior to and after the implementation of the Bologna Declaration at the Faculty of Teacher Education, University of Zagreb. The tasks of this research were to establish the sequence of lectures for music courses prior to the implementation of the Bologna process; to establish the sequence of lectures for music courses after the implementation of the Bologna process; to establish student success in music courses prior to the introduction of the Bologna process; to establish student success in music courses after the implementation of the Bologna process and to establish a relationship of the overall success of students of both

systems of higher education in primary teaching education according to courses, and the beginnings of music courses in the program of study.

HYPOTHESES

H₀ Is there a relationship between the music courses at the primary teacher education program of study and student success in music courses?

Is there a relationship between student success in music courses and the program of study relating to music courses with respect to the implementation of the Bologna process?

H₁ **Students in their first and second year of the pre-Bologna teacher education program of study were less successful in courses Music practicum and Music education than second and third year students of the Bologna teacher education program of study.** The lack of courses relating to the pedagogy and psychology group of subjects prior to attending music courses results in the inability of psychological and didactic transfer necessary for success in music courses. It is therefore anticipated that student success will be lower.

H₂ **Students in their second and third of pre-Bologna teacher education program of study are less successful in the course Music teaching methodology than students in the third and fourth year of Bologna teacher education program.**

The absence of a Student policy manual with a clearly defined sequence of courses and exams results in a low quality knowledge and underdeveloped skills in singing and playing instruments. Therefore, it is assumed that those students will be less successful in their teaching practice.

H₃ **Students in the pre-Bologna teacher education program are less successful in music courses than students in the Bologna program of study.**

All of the above leads to the assumption that students who did not have an education systematized according to the Study and Examination Rules which regulate the sequence of courses and conditions under which students can sit for exams will in general be less successful than students for whom the Study and Examination Rules determines conditions of study.

METHODS

Our research is non-experimental research. For that reason we applied the non-experimental method, a method by which data is gathered from existing documentation and analyzed comparatively. We have established the frequency of grades in particular music courses, the overall grade from all courses in general, differences between groups and the normal distribution of results using nonparametric statistics.

Sample of participants

An accidental sample of participants was used for the research. Our participants are students who have completed their 5th year of study and primary education teachers who have studied prior to the introduction of the Bologna principles (N=76) and primary education students studying according to the Bologna principles (N=76), in total 152 students, graduates, and graduated students (N=152) from the program of primary education at the Faculty of Teacher Education at University of Zagreb.

Data collection

Our research required data regarding the success of students, graduate students and teachers of primary education for courses Music education, Instrumental practicum, and Music teaching methodology who have studied prior to the introduction of the Bologna program and data on the success of students from courses Music education, Music practicum and Music teaching methodology who are studying according to the Bologna program of study. Data on the success from particular courses in both groups was gathered from existing documents Book of exams for the following courses: Music education, Instrumental practicum, Music practicum and Music teaching methodology at the Faculty of Teacher Education, University of Zagreb. Those documents provide individual grades for the mentioned courses. The data were sorted for each student individually according to the achievement in a particular music course and the overall success from all courses for each student individually and the overall success from all music courses for the entire group. In this process the group that studied in the pre-Bologna program was marked with the symbol S_1 , and the group which studies according to the Bologna principles with the symbol S_2 . Success in particular courses is expressed by grades from 2 to 5. Marking student achievement in particular courses was done using numerical marks for particular elements of areas of music within the framework of particular courses. The data gathered were quantified and located on a scale from 2 to 5.

Procedure

Success in each of the music courses' exams is defined by a numerical grade. It is the overall result of individually graded elements – components of particular areas of music. Success in the course Instrumental practicum/Music practicum is conditioned by regular assessment of each student (preliminary exams) and presentation of knowledge of playing an instrument (with two hands) of set songs. Success in the course Music education is conditioned by regular assessment of theoretical knowledge of music through preliminary exams and elements of music culture in the final exam (basics of music history, reading rhythm, solmization and

music alphabet of a particular music sample and singing and playing songs in the Teaching program for the first three years of primary school). Success in the course Music teaching methodology is conditioned by regular assessment of theoretical and practical knowledge of teaching methodology (teaching practicum in schools) and presentation of knowledge of elements of music in the final exam (theoretical knowledge of music teaching methodology, reading rhythm, solmization, and music alphabet of a particular music sample and singing and playing a song from the Teaching program for the first three years of primary school). Below we present some results obtained based on the data collected.

RESULTS

Frequency of grades

Instrumental practicum course

Table 1. Frequency of grades for the course *Instrumental practicum /Music practicum* of students in the pre-bologna and bologna program of primary education.

	Grade	Pre-bologna	Bologna	Total
	2	25	5	30
Grade –	3	13	8	21
Instrumental / Music practicum	4	18	28	46
	5	20	35	55
TOTAL		76	76	152

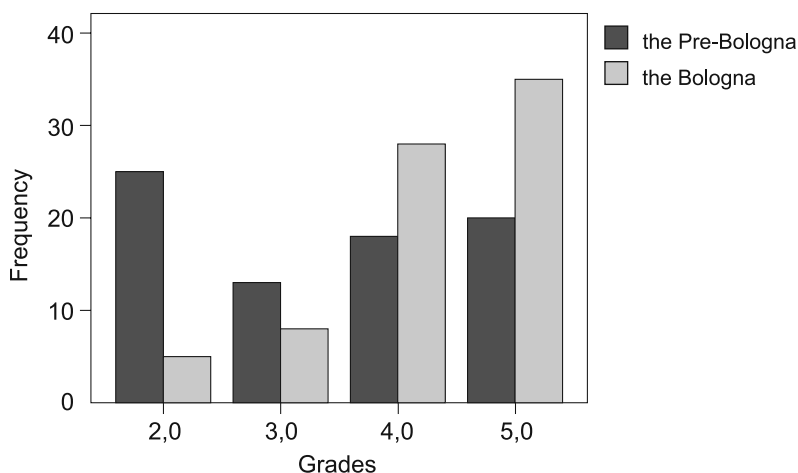


Figure 1. Frequency of grades for the course *Instrumental /Music practicum*

Table 1 presents the level of success that students achieved in the course Instrumental / Music practicum in the period prior to the Bologna and after the implementation of Bologna. The data show higher success of students in the course Instrumental practicum in the Bologna program. Data from the table are presented graphically.

Music education course

Table 2 presents students' success in the course Music education in the pre-Bologna and Bologna implementation. The data show a slightly higher success of students in the course Music education after the implementation of Bologna. Data in the table are presented graphically.

Table 2. Frequency of grades from the course *Music education* of students in the pre-Bologna and Bologna primary education program.

	Grade	Pre-Bologna	Bologna	Total
Grade – Music education	2	13	9	22
	3	24	26	50
	4	21	17	38
	5	18	24	42
TOTAL		76	76	152

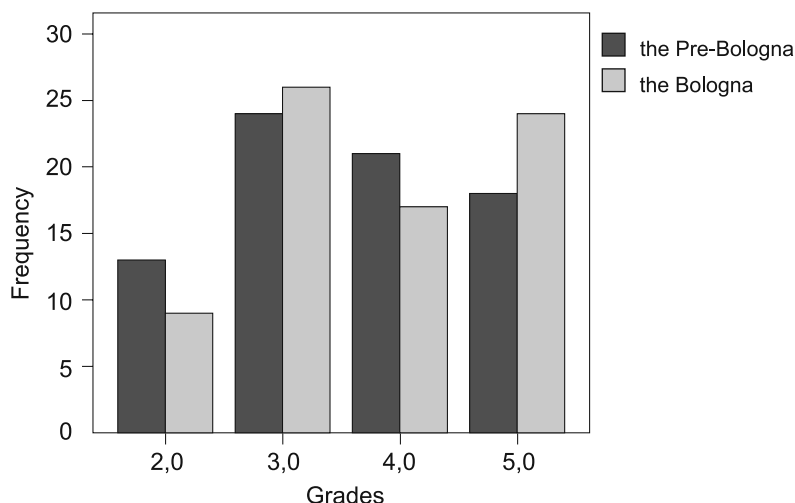


Figure 2. Frequency of grades for the course *Music education*

Music teaching methodology Course

Table 3 presents students' success in the course Music teaching methodology in the pre-Bologna and Bologna program of study. The data show a significantly higher success of students in the course Music teaching methodology according to the Bologna program. The data in the table are presented in the following graph.

Table 3. Frequency of grades for the course *Music teaching methodology* in the pre-Bologna and Bologna teacher education program of study.

	Grade	Pre-Bologna	Bologna	Total
Grade – Music teaching methodology	2	10	7	17
	3	26	16	42
	4	27	23	50
	5	13	30	43
TOTAL		76	76	152

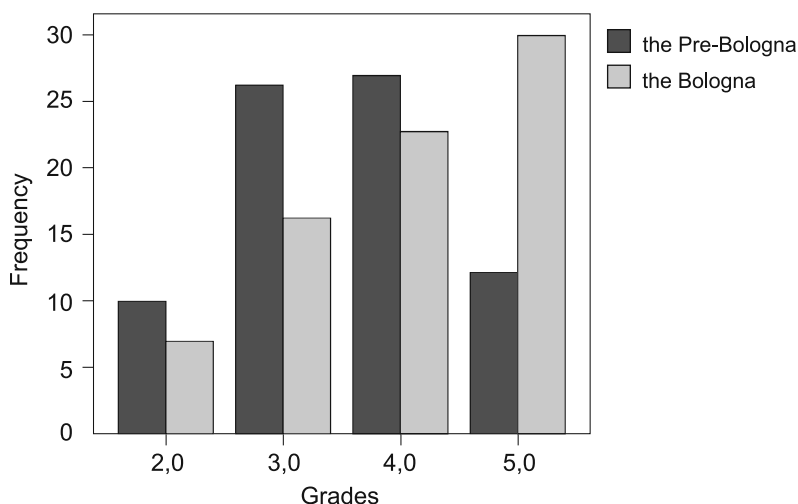


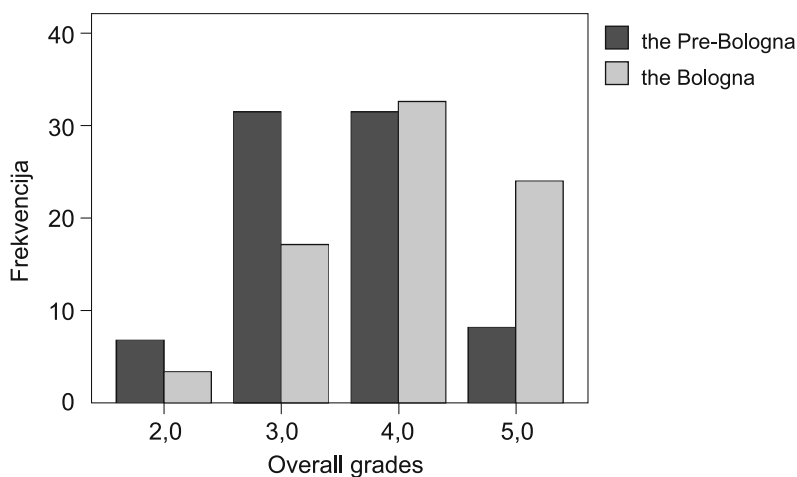
Figure 3. Frequency of grades for the course *Music teaching methodology*

Overall grade for all music courses

Table 4 presents the overall student success in all music courses prior and after the implementation of Bologna. The data show higher achievement of students in music courses after the implementation of Bologna. The data in the table are presented graphically.

Table 4. Frequencies of students' overall grades for music courses in the pre-Bologna and Bologna program of study.

	Grade	Pre-Bologna	Bologna	Total
Overall grade	2	6	3	9
	3	31	17	48
	4	31	32	63
	5	8	24	32
TOTAL		76	76	152

**Figure 4.** Frequency of the overall grades for music courses

Test for normality of distribution

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Test	Degree of freedom	Significance	Test	Degree of freedom	Significance
Course grade Instrumental/ Music practicum	0.225	152	p>0.01	0.820	152	p>0.01
Course grade Music education	0.211	152	p>0.01	0.864	152	p>0.01
Course grade Music teaching methodology	0.199	152	p>0.01	0.866	152	p>0.01
Overall grade in music courses	0.229	152	p>0.01	0.866	152	p>0.01

The results of the test for normality of distribution show that the distributions of results significantly differ from the normal distribution ($p>0.01$) which is why non-parametric statistics is used for testing differences between groups.

Differences among groups

	Grade for the <i>Instrumental/Music practicum course</i>
Mann-Whitney U	1835.5
Wilcoxon W	4761.5
Z	-4.055390898
Significance	p>0.01

	Grade for the <i>Music education course</i>
Mann-Whitney U	2652
Wilcoxon W	5578
Z	-0.904367157
Significance	p<0.01

	Grade for the <i>Music teaching methodology course</i>
Mann-Whitney U	2149.5
Wilcoxon W	5075.5
Z	-2.838251362
Significance	p>0.01

	Overall grade for all music courses
Mann-Whitney U	1993.5
Wilcoxon W	4919.5
Z	-3.498262801
Significance	p>0.01

The results indicate an existence of a statistically significant difference in grades for courses Instrumental/Music practicum ($z=-4.05$; $p>0.01$), Music teaching methodology ($z=-2.84$; $p>0.01$) and the overall grade ($z=-3.50$; $p>0.01$). In all of the cases the difference is in favor of the Bologna group of participants. The participants who attended the course after the implementation of Bologna had statistically significantly higher grades in all three courses than the pre-Bologna students. No statistically significant difference between the two groups was established in the grade for the Music education course.

DISCUSSION

The results of individual and group success in music courses do not follow the Gauss curve (normal distribution) which is why it is rather impossible to make graphical presentation with arithmetic means. Graphs with frequencies indicate that the distribution of results is not a normal one.

Instrumental/Music practicum course

The frequency of success for the course Instrumental/Music practicum of students studying according to the Bologna program show a tendency of increased success which can be seen in the higher frequency of grades 4 and 5. A high frequency of grade 2 among non-bologna students is the result of not having Study and Examination Rules and therefore many students took the exam for this course at the very end of their program of study which resulted in low grades.

Music education course

An equal frequency of occurrence of approximately the same grades for both groups of students is the result of the concept of the exam which consists of several elements where the more successful element is dominant. The distribution of the results follows the Gaussian curve.

Music teaching methodology course

The Music teaching methodology course is the most complex music course in the program of study. It implies knowledge and skills not only of music courses but of the majority of the courses in the pedagogy-psychology group of subjects. As Bologna students take extra courses in pedagogy and psychology their success in the course Music teaching methodology is not surprising. Differences between the two groups are significant. The success of the Bologna students is more present in the tendency of positive growth model of the Gaussian curve while the success of non-Bologna students is concentrated towards the middle.

For both groups of students the results of the overall grade were grouped according to the mean values of the Gaussian curve. For the purpose of checking differences between two groups of participants (pre-Bologna and Bologna) a non-parametric test for calculating differences between two independent samples – the Mann-Withney U was applied.

CONCLUSION

The contribution of this research lies in examining the model of higher education, the sequence of occurrence of particular courses and their interrelated integration. This kind of analysis of the present state in teaching practice aids evaluation and assessment of music courses at the primary education program of study, but also the climate of other courses which in their fundamental theoretical establishment create an interactive relationship. The research established that the program for the education of primary school teachers at the Faculty of Teacher Education is well thought out which is evident in the higher success of bologna students for the majority of the music courses. By abiding to the Study and Examination

rules students have the opportunity to work continually and systematically which guarantees better achievement. Considering that the system of higher education is continually developing and adapting to the curricular determinants of the teaching process, it is necessary to implement periodic and systematic research in order to gain a detailed insight into problematic areas.

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