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Actitudes de estudiantes y profesores sobre la enseñanza de música a distancia en la República de Croacia[1]

Attitudes of Students and Teachers about Distance Music Teaching in the Republic of Croatia

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Resumen:
Debido a la pandemia de Covid-19, el aprendizaje a distancia se está volviendo esencial para la educación continua. Como parte de este trabajo, se llevó a cabo una investigación durante el año escolar 2021/22 en la República de Croacia, cuyo objetivo fue determinar posibles diferencias en las actitudes de los estudiantes y profesores de música con respecto a las lecciones de música a distancia durante la pandemia de Covid-19. Los datos fueron recolectados a través de una encuesta en línea a 583 participantes de la investigación, de los cuales 503 eran estudiantes de los grados séptimo y oc-

Abstract:
Due to the Covid-19 pandemic, distance learning is becoming essential for continuing education. As part of this work, research was conducted during the 2021/22 school year in the Republic of Croatia for the purpose of determining possible differences in the attitudes of students and music teachers regarding remote music lessons during the Covid-19 pandemic. Data were collected through an online survey which was completed by 583 research participants, of whom 503 were students in the seventh and eighth grades of elementary general education, and 83 were teachers of Music Culture who teach

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tavo de escuelas primarias de educación general, y 83 eran profesores de Cultura Musical que enseñan música en escuelas primarias. Los resultados mostraron que, en mayor medida, los docentes creen que la enseñanza de la música a distancia requiere mucho esfuerzo y genera estrés. Además, en mucha menor medida, los docentes creen que durante las lecciones de música a distancia, los estudiantes adquieren los mismos conocimientos que en las lecciones en la escuela y que las calificaciones en la educación a distancia no son un reflejo del conocimiento real de los estudiantes. Al mismo tiempo, en mayor medida, los docentes consideran que son más indulgentes a la hora de evaluar la educación a distancia que la enseñanza presencial. Dado que la educación a distancia se ha convertido en parte integral de la realidad educativa moderna, no solo por las condiciones de la pandemia, merece cada vez más atención por parte de los docentes, las autoridades educativas y toda la comunidad.

Palabras clave:
Estudiantes, profesores de cultura musical, enseñanza de música a distancia, escuela primaria de educación general, Covid-19.

music in elementary schools. The results showed that, to a great extent, teachers believe that teaching music in an online modality requires a lot of effort and generates stress. Also, to a much lesser extent, teachers believe that during remote music lessons, students acquire the same knowledge as in lessons at school and that grades in distance learning are not a reflection of students' actual knowledge. Also, teachers consider that they are more lenient when evaluating distance learning than in on-site teaching. Given the fact that distance learning has become an integral part of modern educational reality, not only due to pandemic conditions, it deserves more attention from the entire education community, with a special focus on teachers and education authorities.

Key words:
Students, Music culture teachers; distance music teaching, elementary general education school, Covid-19.

Résumé:
Suite à la pandémie de Covid-19, la formation à distance devient incontournable pour la formation continue. Dans le cadre de ce travail, une recherche a été menée au cours de l'année scolaire 2021/22 en République de Croatie, dont le but était de déterminer les différences possibles dans les attitudes des élèves et des professeurs de musique concernant les cours de musique à distance pendant la pandémie de Covid-19. Les données ont été recueillies par le biais d'une enquête en ligne auprès de 583 participants à la recherche, parmi lesquels 503 étaient des élèves de septième et huitième années d'écoles élémentaires d'enseignement général, et 83 étaient des enseignants de culture musicale qui enseignent la musique dans les écoles élémentaires. Les résultats ont montré que, dans une plus large mesure, les enseignants croient que l'enseignement de la musique à distance demande beaucoup d'efforts et crée du stress. Aussi, dans une bien moindre mesure, les enseignants estiment que lors des cours de musique à distance, les élèves acquièrent les mêmes connaissances qu'en cours à l'école et que les notes en enseignement à distance ne reflètent pas les connaissances réelles des élèves. Parallèlement, les enseignants s'estiment plus indulgents avec l'évaluation de la formation à distance qu'avec celle de la formation en présentiel. Étant donné que l'apprentissage à distance est devenu une partie intégrante de la réalité éducative moderne, non seulement en raison des conditions de pandémie, il mérite de plus en plus l'attention des enseignants, des autorités éducatives et de l'ensemble de la communauté.

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Mots clés:
Élèves, professeurs de culture musicale, enseignement musical à distance, école primaire d'enseignement general, Covid-19.

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Introduction

Due to the Covid-19 pandemic, distance learning is becoming essential for continuing education. Teachers were suddenly faced with the continuous need to use the Internet, computers, communication tools and video conferencing services. Some of the teachers were unfamiliar with the mentioned tools, and needed to be quickly educated (Çetinkaya Aydın, 2020; Erbaş, 2021). However, considering the development of all aspects of contemporary society that are unrelated to the pandemic, digital literacy is a teacher competency that is especially important in the twenty-first century. Digital competence is a multidimensional ability of people that encompasses a very diverse set of actions, affects all educational levels, and combines multiple trends related to methodologies, resources, instruments, and teaching contents (Fombona & Pascual, 2020). Among the "desirable" competences that teacher should have, scientific and technological competences are of the greatest importance because they are crucial for the research and inclusion of all the possibilities offered by information and communication technologies (ICT) in teaching practice (Tadeu, 2020). Colás-Bravo and Hernández Portero (2014) point out that it is important to improve the education of music teachers in this area in order to enable them to approach the social reality of which they are a part, since music teaching has specific technological resources that enable access to the contents of the lesson in a more attractive and motivating way. Therefore, back in 2017, the joint research center of the European Commission designed the European framework for the digital competence of educators – DigCompEdu (Digital Competence of Educators). The European DigCompEdu framework consists of six areas, which are: 1) professional engagement: application of technology to support one's profession; 2) digital resources: handling and use of digital content for learning and teaching; 3) digital learning and teaching: didactic use of technology; 4) evaluation and assessment: use of technology for

the field of evaluation and assessment; 5) support for students: help for weaker students; 6) teaching digital competences: guiding students in acquiring digital knowledge and skills (Redecker, 2017).

Distance education is not new and has been used for many years, but the pandemic has caused it to be widely use. It is important to remember that classroom teaching methods cannot be identical to those used in traditional classrooms. Accordingly, distance education has advantages but also disadvantages compared to classroom teaching. Distance classes have the following advantages:

- by teaching students from a distance, you can save time and improve learning efficiency
- distance teaching frees participants from spatial and temporal addictions
  - o no time is required to arrive at the place of attendance
  - o students can freely choose the time to watch pre-recorded teaching content and thus organize their time more freely
  - o individualization of the learning process is possible.
- students can, if necessary, repeat parts of lessons or skip some content.

However, compared to classroom teaching, distance learning also has disadvantages, such as:

- lack of participation and insufficient motivation of students
- lack of timely communication between students and teachers, and consequently, lack of exchange of ideas
- different quality of the internet network
- various teaching platform constructions that limit the effectiveness of distance learning (Bergmann & Sams, 2012).

In order to avoid the disadvantages of distance learning and to make teaching as useful as possible for students, Bergmann and Sams (2012) suggest organizing distance learning according to the model of the "flipped classroom". If it is a matter of teaching at school, "flipped classroom" means that students learn the teaching contents at home, i.e., before coming to school, and then deepen their knowledge at school by practicing and solving problem tasks and interacting with the teacher and other students (Bergmann & Sams, 2012). During the pandemic, the "flipped classroom" became a method of working in which students had to first study predetermined materials before engaging in synchronous

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distance learning (Tang et al., 2020). Ng et al. (2021) conducted research in Hong Kong and argue that "flipped classroom" enables more time for collaborative activities during the distance music lessons.

As previously stated, the Covid-19 pandemic caused the transition in overall classes, form classes, and distance classes. Some teachers in that transition are getting better managed, and some are getting worse. Moscardini and Rae (2020) discovered in their research in Scotland that even 62% of music teachers consider themselves incompetent to perform music classes at a distance, and Kibici and Sarıkaya (2021) who state that as music teachers in higher classes of Turkish primary and secondary schools, they estimate the average teacher to be competent to perform music classes at a distance, i.e., teachers of the male gender and younger teachers. Akarsu (2021) talked to high school music teachers in Turkey to find out what they thought about teaching music remotely during the pandemic. Research has shown that the majority of music teachers consider online education unacceptable for teaching music. Furthermore, it was established that the majority of the examined teachers had no prior experience teaching at a distance. Furthermore, they encountered difficulties using tools during remote classes, observed low-motivation students, encountered internet connection issues, and encountered difficulties synchronizing sound in all musical activities. In their research involving Spanish music teachers, Calderón-Garrido and Gustems-Carnicer (2021) point out that the pandemic forced them to make adjustments that were characterised by a lack of methodological and material resources and support from competent educational institutions. At the same time, they pointed out that the new situation enabled them to have better contact with the students. Kivi et al. (2021) point out that music teachers in Greece, Germany, and Turkey emphasise the advantages of online music lessons, such as the large variety of available materials, better discipline than in the classroom, and that they are more willing to sing. They also state shortcomings, namely the lack of performing musical activities and musical events at school, as well as the lack of social interaction. Medňanská and Strenáčiková Jr. (2021) state that music teachers in Slovakia adapted to online teaching very quickly after the initial disorientation. Işıkhan (2017) and Sağer et al. (2020) highlight the problem of sound synchronization, which occurs in music activities classes when students synchronously perform group musical activities singing or playing because sound reaches in different time and

violates harmoniously sounding. In addition to problems with synchronization, they also report poor sound quality. Akarsu (2021) also points out that when performing group musical activities, problems may arise due to sound synchronization. Namely, rhythm and harmony are two basic components of music, and due to bad synchronization, they become incorrect. The author believes that individual musical activities can be carried out more easily through distance learning.

In the Republic of Croatia, distance learning started on March 16, 2020, i.e., for students in the lower grades of elementary school, classes were organized via TV, while for students in the upper grades of elementary school and high school, and students at faculties, distance classes were organized through various platforms. Several studies have been conducted on the topic of remote music teaching and conducting virtual music activities in general education schools, music schools, and higher education institutions in Croatia and the surrounding region (Ristivojević & Svalina, 2022; Jeremić, 2022; Bačlija Sušić & Sambol, 2022; Mičija Palić, 2021; Jurkić Sviben & Jambrošić, 2021; Svalina, 2021; Hodžić-Mulabegović et al., 2021).

Jeremić (2022) examined the attitudes of students in Serbia, i.e., future teachers of Music Culture, about the realization of university music classes under the conditions of using the online platform Microsoft Teams (MST). The study's findings revealed that students, regardless of their year of study, agree in their assessments that university music teaching at a distance contributes to the development of professional competencies for the adoption of teaching content in Music Culture classes. Jurkić Sviben and Jambrošić (2021) conducted a study in which they surveyed students of higher grades in general education schools from different parts of Croatia regarding the activity of singing in distance music lessons. The results of the research showed that students who normally sing are dissatisfied due to the cancellation of live singing during the pandemic, that they really miss live singing in the Musical Culture class, that they feel less happy without singing, that it is more difficult for them to remove negative feelings without singing, and that they would rather sing in a virtual environment rather than not sing at all. Students who were active in singing prior to the pandemic stated that distance learning cannot completely replace live singing as well as quality learning of new songs and compositions.

Hodžić-Mulabegović et al. (2021) conducted research among

 https://doi.org/10.6018/educatio.554821

Solfeggio teachers of primary and secondary music schools and music academies in Bosnia and Herzegovina, Croatia, and Serbia on the implementation of distance Solfeggio lessons. During the distance learning of Solfeggio, the basic conditions were not provided, nor were any preparations made for the work, but a small number of respondents still believe that they had everything they needed to fulfill the educational tasks. A significant number of teachers did not use suitable websites and applications for practicing and implementing the teaching process. The results of the research showed that it is necessary to ensure the possibility of continuous improvement of the digital competences of teachers and students. It was concluded that most activities (singing, group music making, performing, and analytical observation) are almost impossible to perform via distance learning, especially those that are realized in real time, i.e., synchronously. Ristivojević and Svalina (2022) conducted research in music schools in Croatia and Serbia in order to examine the attitudes of music teachers about vocal-instrumental and theoretical distance learning. The results showed that even though there were a lot of problems, like slow Internet connections and bad sound quality from electronic devices, the teachers were able to make remote music lessons work. Teachers who teach instrumental and vocal classes performed better on self-evaluation in distance learning than those who teach theoretical music classes. Music teachers are of the opinion that the transfer of complete knowledge is not possible through technology, but most of them are open to the possibility of using ICT. Svalina (2021) conducted research in music schools in Croatia, in which instrumental teachers participated. The results showed that teachers do well in distance learning, especially the youngest ones. Among the difficulties faced by the teachers, the problem of poor internet connections, poor sound quality, slow communication with the students, and the inability to work with the students in the interpretation of compositions were most often singled out. In their future work, teachers would keep audio and video recordings of students' playing, passing on audio and video materials to students, their own recordings of the performance of parts of compositions or complete compositions, and also holding classes remotely in situations when students are sick or absent from class for some other reason. Mičija Palić (2021) examined the attitudes of students with respect to enforcement classes on distance in music schools in Croatia. The results showed that two-thirds

of the students used mobile devices for distance learning, which, due to their technical shortcomings, affected the quality of distance learning. WhatsApp was the most popular app, and two-thirds of students used it. About half of the students needed help with the use of ICT. By comparing the teaching of the instrument and Solfeggio, it was shown that the teaching of the instrument was mostly conducted synchronously, i.e., by establishing a video call, while the teaching of Solfeggio was mostly asynchronous and consisted of solving tasks. Accordingly, the students stated that distance learning of the instrument is more demanding than Solfeggio. The students' suggestions indicated the need to implement a hybrid model of distance learning (so-called blended learning), which includes a combination of video calls, i.e., synchronous and asynchronous teaching.

Methodology

The aim of the research and hypotheses

The goal of the research was to determine whether there are statistically significant differences in the attitudes of students and music teachers regarding the conduct of distance learning in Music Culture classes. The research was based on the following hypotheses:

H1: *There is a statistically significant difference between students and teachers in their opinions about the support of the school and the local community for following distance music teaching*.

H2: *There is a statistically significant difference between teachers and students in the assessment of competence/success in organizing/following distance music teaching*.

H3: *There is a statistically significant difference between students and teachers in their opinions about students' knowledge acquisition and evaluation in distance music teaching*.

H4: *There is a statistically significant difference in the attitudes of students and teachers about distance music teaching tools*.

Hypotheses are based on assumptions derived from the results of other research (Ristivojević & Svalina, 2022; Svalina, 2021; Hodžić-Mulabegović et al., 2021; Jurkić Sviben & Jambrošić, 2021).

 https://doi.org/10.6018/educatio.554821

Sample and data collection

The research took place during the 2021–2022 school year. and included 583 research participants, of whom 503 were students of the seventh and eighth grades of elementary general education schools and 83 were teachers of Music Culture from 16 Croatian counties. The data was collected through an online survey. The research was financed by the authors of the paper.

An anonymous online survey filled out by students and teachers consisted of questions and statements that sought to find out their views on distance music learning. There were a total of 30 items on the survey questionnaire, but only 12 were used for this work.

The opinion of the participants about the support they receive from the school and the local community was examined with an instrument consisting of three items, one of which was dichotomous (the answers offered were yes or no) and two in the form of a Likert scale (example: On a scale of 1 to 5, mark the extent to which you agree with the statement that your school organizes courses or workshops that help students follow distance learning, where 1 means that you do not agree with the stated statement at all, 2 that you do not agree, 3 that you have no opinion, 4 that you agree, and 5 that you completely agree).

The self-assessment of the participants about the successful following and organization of music classes at a distance was examined with an instrument consisting of three items in the form of a Likert scale.

A three-item Likert scale was used to find out what the research participants thought about how students learned and how their knowledge was evaluated during distance music lessons.

The instrument used to find out the attitudes of students and teachers about tools for distance learning consisted of two items, one of which was dichotomous in nature and the other in the form of a Likert scale.

A t-test was used to determine possible statistically significant differences in attitudes between students and teachers about distance learning music. Quantitative data were processed with the computer program SPSS.

Results

At the beginning of the questionnaire, we wanted to find out from the research participants how they evaluate the support of the school and the local community in following/organizing music lessons at a distance (Tables 1 and 2).

Table 1
Independent samples t-test on opinions about school and community support.

Question	Participants	yes		no		*M*	*SD*	*t*
		f	%	f	%			
Do you think that the school provides you with sufficient support in following /organizing distance learning?	students (N=503)	411	81.71	92	182.9	1,18	.39	1.12
	teachers (N=83)	7	86.75	11	13.25	1.13	.34	

p <.05*; *p* <.01**; *p* <.001***

As can be seen from Table 1, a significant majority of students and teachers believe that they receive sufficient support from the school for following (students) and organizing (teachers) music lessons at a distance. A statistically significant difference in opinions between the two groups of research participants was not determined (p >.05).

Table 2
T-test for independent samples with regard to opinion on the representation of workshops in schools and the local community.

Variable	Participants	N	*M*	*SD*	*t*
Opinion on the representation of workshops in schools	students	503	2.81	1.49	.31
	teachers	83	2.76	1.29	
Opinion on the representation of workshops in the local community	students	503	3.02	1.45	.31
	teachers	83	2.96	1.37	

*$p < .05$ **$p < .01$ ***$p < .001$

Both groups of research participants, on average, have a neutral opinion of the (in)sufficient representation of distance learning workshops in schools and the local community (Table 2). In this case, too, no statistically significant difference in attitudes was found between the two groups of research participants (p>.05).

Given that no statistically significant difference between students

 https://doi.org/10.6018/educatio.554821

and teachers was found for any of the three variables, the hypothesis H1 *There is a statistically significant difference between students and teachers in their opinions about the support of the school and the local community for following distance music teaching* was not accepted.

In the continuation of the questionnaire, we wanted to find out from the research participants how they assess their own competence/success in organizing/following distance music lessons (Table 3).

Table 3
Independent samples t-test for assessing competence or performance.

Claim	Participants	*N*	*M*	*SD*	*t*
I think I am competent/successful in following/organizing music classes at a distance.	students	503	4.26	.91	-.27
	teachers	83	4.29	.83	
Independent work and study help me follow and organize remote music lessons.	students	503	4,11	1.14	**-4.53** ***
	teachers	83	4.69	.52	
Teaching music at a distance requires a lot of effort and is a source of stress for me.	students	503	2.63	1.44	**-7.92** ***
	teachers	83	3.93	.97	

*$p < .05$ **$p < .01$ ***$p < .001$

Students and teachers, to a significant extent (Table 3), believe that they are successful/competent enough to follow/organize music lessons remotely (p>.05). A statistically significant difference was established with regard to two variables. Namely, to a greater extent, teachers believe that independent work and learning are useful for organizing music classes at a distance (p<.001). At the same time, teachers, to a considerable extent, claim that remote music teaching is an effort and a source of stress for them, which cannot be said for students (p<.001). We can assume that one of the reasons is that, in general, students find it easier to navigate and adapt faster in the digital world than their teachers. In addition, there is pressure on teachers because they are expected to organize lessons in a new way that is as effective as or almost as effective as classroom teaching.

With regard to the results, the hypothesis H2 *There is a statistically significant difference between teachers and students in the assessment of competence/success in organizing/following distance music teaching* was partially accepted.

Furthermore, we wanted to find out the opinions of the research par-

ticipants about students' knowledge acquisition and evaluation in distance music lessons (Table 4).

Table 4
Independent samples t-test with respect to opinion on knowledge acquisition and evaluation.

Claim	Participants	*N*	*M*	*SD*	*t*
When conducting remote music lessons, I acquire (the students acquire) the same knowledge and skills that I would acquire in lessons at school.	students	503	3.42	1.41	6.81***
	teachers	83	2.33	1.04	
The grades that are the result of distance learning music are a reflection of my (the student's) actual knowledge.	students	503	3.90	1.26	10.92***
	teachers	83	2.30	1.06	
During the assessment, the music teacher is (I am) more lenient than usual.	students	503	3.24	1.40	-4.10***
	teachers	83	3.89	.96	

*$p < .05$ **$p < .01$ ***$p < .001$

As can be seen from Table 4, teachers, to a much lesser extent, believe that during remote music lessons, students acquire the same knowledge as in lessons at school (p<.001) and that grades in distance learning are not a reflection of students' actual knowledge (p< .001). At the same time, teachers believe they are more lenient when evaluating distance learning than in-school teaching (p<.001). Given the differences in opinions about the acquisition of knowledge, we assume that the teachers have summarized the teaching content and are aware of the fact that they did not manage to realize all the teaching content during distance learning that the students could have learned in school. Also, the difference in assessment in terms of evaluation is understandable because teachers are aware that they graded more lightly than usual in this situation and that the grades may not be entirely objective.

Based on the findings, hypothesis H3 *There is a statistically significant difference between students and teachers in their opinions about students' knowledge acquisition and evaluation in distance music teaching*, was accepted.

Finally, we wanted to get students' and teachers' opinions about the tools they use for remote music lessons (Tables 5 and 6).

 https://doi.org/10.6018/educatio.554821

Table 5
Independent samples t-test regarding tool satisfaction.

Question	Participants	yes		no		*M*	*SD*	*t*
		f	%	f	%			
Are you satisfied with the tools you use to follow/organize music lessons remotely?	students (N=503)	454	90.26	49	9.74	1.10	.30	1.45
	teachers (N=83)	79	95.18	4	4.82	1.05	.22	

*$p < .05$ **$p < .01$ ***$p < .001$

Table 5 shows that the vast majority of both groups of research participants are satisfied with the tools used in remote music lessons, and no statistically significant difference was found between students and teachers (p>.05).

Table 6
Independent samples t-test regarding the contribution of tools to teaching.

Claim	Participants	N	*M*	*SD*	*t*
Tools (computer programs, digital platforms) for remote music teaching contribute to the quality of teaching.	students	503	4.01	1.11	.92
	teachers	83	3.89	1.02	

*$p < .05$ **$p < .01$ ***$p < .001$

As can be seen from Table 6, students and teachers mostly positively evaluate the role of the digital tools they use for distance music lessons. A statistically significant difference in attitudes between the two groups of research participants was not determined (p>.05).

In conclusion, hypothesis H4 *There is a statistically significant difference in the attitudes of students and teachers about distance music teaching tools* was not accepted.

Conclusion

The goal of the research presented in this paper was to determine whether there are statistically significant differences in the attitudes of students and music teachers regarding the implementation of Music Culture classes at a distance. The results showed that both groups of research participants equally believed that they received sufficient support from the school for following/organizing remote music lessons. These results

are in line with the research conducted by Hodžić-Mulabegović et al. (2021), but also in contrast with the research by Calderón-Garrido and Gustems-Carnicer (2021). Furthermore, the results show that the school and the local community insufficiently organise workshops that would be useful for such classes. The results of research by Calderón-Garrido and Gustems-Carnicer (2021) and Hodžić-Mulabegović et al. (2021) say the same. Also, students and teachers agree to a significant extent with the assertions that digital tools contribute to the quality of distance music lessons and that they are satisfied with them, which contradicts the results of the research conducted by Akarsu (2021). Furthermore, both groups of research participants are assessed as competent or successful in organizing or following distance music lessons. Kibici and Sarıkaya (2021) came to the conclusion that teachers are assessed as averagely competent, while research participants Moscardini and Rae (2020) assessed themselves as insufficiently competent. However, to a greater extent, teachers believe that teaching music at a distance requires a lot of effort and creates stress ($p<.001$).

Of the four hypotheses, only one was fully accepted. Namely, a statistically significant difference between the two groups was determined with regard to the students' opinions on their knowledge acquisition and evaluation in distance music lessons ($p<.001$). To a much lesser extent, teachers believe that during remote music classes, students acquire the same knowledge as in classes at school and that grades in remote classes do not reflect the students' actual knowledge. At the same time, to a greater extent, teachers consider that they are more lenient when evaluating distance learning than in-school teaching.

The results and conclusions should be taken with a grain of salt considering the main limitation of this research, which is the fact that the research participants were from 16 Croatian counties out of a total of 21 counties and that only seventh and eighth grade elementary school students participated. Therefore, one of the future research projects could include fourth, fifth, and sixth grade students as well as high school students and music teachers in secondary schools, which would provide a more complete insight into distance music teaching in general education schools in the Republic of Croatia. Distance learning, in particular, has already become an integral part of modern educational reality, and deserves increasing attention from teachers, educational authorities, and the entire community. The results of this study show, among other things,

 https://doi.org/10.6018/educatio.554821

that educational authorities need to set up more courses and workshops to help music teachers develop their digital skills over time and help them deal with stress during this or similar crises.

References

Akarsu, S. (2021). Investigating Secondary School Music Teachers' Views about Online Music Lessons during the COVID-19 Pandemic. *Educational Policy Analysis and Strategic Research*, *16*(2), 160-178. https://doi.org/10.29329/epasr.2020.345.8

Bačlija Sušić, B., & Sambol, L. (2022). Glazbene aktivnosti s djecom predškolske dobi u virtualnom okruženju iz perspektive održivog razvoja. In Gortan-Carlin, I., Riman, K. & Bačlija Sušić, B. (Ed.), *Mùzika: zvuk, logos, odgoj i obrazovanje, terapija - Zbornik radova s 9. međunarodnog znanstveno- stručnog skupa „Iz istarske glazbene riznice"* (pp. 111-131). Sveučilište Jurja Dobrile u Puli Fakultet za odgojne i obrazovne znanosti; Katedra Čakavskog sabora za glazbu Novigrad-Cittanova. https://repozitorij.unipu.hr/islandora/object/unipu:6983

Bergmann, J., & Sams, A. (2012). *Flip YOUR Classroom: Reach Every Student in Every Class Every Day*. International Society for Technology in Education. https://www.rcboe.org/cms/lib/ga01903614/centricity/domain/15451/flip_your_classroom.pdf

Calderón-Garrido, D., & Gustems-Carnicer, J. (2021). Adaptations of music education in primary and secondary school due to COVID-19: the experience in Spain. *Music Education Research*, *23*(2), 139-150. https://doi.org/10.1080/14613808.2021.1902488

Çetinkaya Aydın, G. (2020, May 28). Teachers during the Covid-19. *Tedmem*. https://tedmem.org/covid-19/covid-19-salgini-surecinde-ogretmenle

Colás-Bravo, P., & Hernández Portero, G. (2014). Incidencia de la Formación del Profesorado en sus creencias sobre el valor de las TIC en la enseñanza de la Música. *Educatio Siglo XXI*, *32*(3), 51-74. https://doi.org/10.6018/j/210981

Erbaş, Y. H. (2021). Covid-19 salgını döneminde eğitim: İlkokuma yazma öğretiminde karşılaşılan sorunlar ve çözüm önerileri. *Ana Dili Eğitimi Dergisi*, *9*(2), 360-380. https://doi.org/10.16916/aded.851724

Fombona, J., & Pascual, M. A. (2020). Perception of Primary Education Teacher students about their digital competence, training emergencies detected. *Educatio Siglo XXI, 38*(3), 105-128. https://doi.org/10.6018/educatio.425691

Hodžić-Mulabegović, N., Kazić, S., & Plakalo, E. (2021). Nastava solfeggia u online okruženju – evaluacija i perspektive. *Časopis za muzičku kulturu – Muzika*, *25*(2), 31-64. http://muzika.mas.unsa.ba/wp-content/uploads/2022/02/Nerma-HOD%C5%BDI%C4%86-MULABEGOVI%C4%86-Senad-KAZI%C4%86-Ena-PLAKALO.pdf

Işıkhan, C. (2017). Synchronization on Music Technology and The Root of the Time-Code Sync. Problems. *Afyon Kocatepe University Journal of Academic Music Research*, *3*(6), 1-10. https://doi.org/10.5578/amrj.57396

Jeremić, B. (2022). Competencies of students necessary to adopt the methodology of

teaching music during online learning. In Gortan-Carlin, I., Riman, K. & Bačlija Sušić, B. (Ed.), *Mùzika: zvuk, logos, odgoj i obrazovanje, terapija - Zbornik radova s 9. međunarodnog znanstveno- stručnog skupa „Iz istarske glazbene riznice“* (pp. 29-54). Sveučilište Jurja Dobrile u Puli Fakultet za odgojne i obrazovne znanosti; Katedra Čakavskog sabora za glazbu Novigrad-Cittanova. https://repozitorij.unipu.hr/islandora/object/unipu:6983

Jurkić Sviben, T., & Jambrošić, N. S. (2021). (Ne)Pjevanje za vrijeme pandemije bolesti COVID-19 – mišljenja i emocionalni doživljaj učenika od 5. do 8. razreda osnovnih škola u Republici Hrvatskoj. *Školski vjesnik, 70*(2), 245-268. https://doi.org/10.38003/sv.70.2.11

Kibici, V. B., & Sarıkaya, M. (2021). Readiness levels of music teachers for online learning during the COVID 19 pandemic. *International Journal of Technology in Education* (IJTE), *4*(3), 501-515. https://doi.org/10.46328/ijte.192

Kivi, A., Koniari, D., Özeke, S., & Çeliktaş, H. (2021). Reactions and good practices to new corona conditions for teaching music in schools by music teachers in Germany, Greece, and Turkey. In Pabst-Krueger, M., & Ziegenmeyer, Z. (Ed.), *Perspectives for music education in schools after the pandem* (pp. 5-17). Music Teacher Associations in Europe (MTA). https://doi.org/10.13140/RG.2.2.13803.67369

Medňanská, I., & Strenáčiková, Jr., M. (2021). Reflection on teaching music in schools in Slovakia during the pandemic and description of online teaching. In Pabst-Krueger, M., & Ziegenmeyer, Z. (Ed.), *Perspectives for music education in schools after the pandem* (pp. 18-27). Music Teacher Associations in Europe (MTA). https://doi.org/10.13140/RG.2.2.13803.67369

Mičija Palić, M. (2021). Utjecaj pandemije COVID-19 na glazbeno obrazovanje u Republici Hrvatskoj: problematika provođenja nastave na daljinu. *Napredak,* 1*62*(3-4), 295-312.

Moscardini, L. & Rae, A. (2020). *We make music online: A report on online instrumental and vocal teaching during the COVID-19 lockdown*. The Scottish Government: Music Education Partnership Group. https://doi.org/10.13140/RG.2.2.20242.89289.

Ng, D. T. K., Ng, E. H. L., & Chu, S. K. W. (2021). Engaging students in creative music making with musical instrument application in an online flipped classroom. *Education and Information Technologies, 27*, 45-64. https://doi.org/10.1007/s10639-021-10568-2

Redecker, C. (2017). E*uropean Framework for the Digital Competence of Educators: DigCompEdu*. Publications Office of the European Union. https://doi.org/10.2760/159770

Ristivojević, A., & Svalina, V. (2022). Nastava na daljinu u hrvatskim i srpskim glazbenim školama: Stavovi i praksa nastavnika. *Metodički ogledi, 29*(1), 241-261 https://doi.org/10.21464/mo.29.1.3.

Sağer, T., Özkişi, Z. G., & Yüceer, E. M. (2020). The effects of covid-19 pandemic period on listening to and performing music: Yıldız Technical University undergraduate students sample. *Mediterranean University International Journal of Music and Stage Arts*, *4*, 1-17. https://doi.org/10.29329/epasr.2020.345.8

Svalina, V. (2021). Primjena informacijsko-komunikacijske tehnologije u instrumentalnoj glazbenoj nastavi. In Vidulin, S. (Ed.), *Glazbena pedagogija u svjetlu sadašnjih*

i budućih promjena 7: Multidisciplinarna susretišta: istraživanja glazbenoga odgoja i obrazovanja (pp. 139-157). Sveučilište Jurja Dobrile u Puli; Muzička akademija u Puli.

Tadeu, P. (2020). La competencia científico-tecnológica en la formación del futuro docente: algunos aspectos de la autopercepción en respeto a la integración de las TIC en el aula. *Educatio Siglo XXI*, *38*(3 Nov-Feb), 37-54. https://doi.org/10.6018/educatio.413821

Tang, T., Abuhmaid, A. M., Olaimat, M., Oudat, D. M., Aldhaeebi, M., & Bamanger, E. (2020). Efficiency of flipped classroom with online-based teaching under COVID-19. *Interactive Learning Environments*, 1-12. https://doi.org/10.1080/10494820.2020.1817761