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THE IMPACT OF COVID-19 PANDEMIC ON MUSIC EDUCATION: A REVIEW OF THE LITERATURE

Ligita Stramkale University of Latvia, Latvia

ABSTRACT

The study topicality is related to the impact of the Covid-19 pandemic on music education in various educational institutions worldwide. This literature review aimed to summarize and identify current issues related to music education during the Covid-19 pandemic. The study used publications available in the Sage Journal database and published in the last three years (2020-2022). The study addressed three research questions. RQ1: What teaching modes adopted during the Covid-19 pandemic in music education are mentioned in studies, and for what purposes are music teachers using digital tools? RQ2: What are the challenges and benefits of teaching and learning music during the Covid-19 pandemic? RO3: What are the common reasons for music teacher burnout, and how to ensure the teacher's and student's well-being during the music teaching and learning process in the Covid-19 pandemic? The literature review allowed us to identify three thematic groups that affected music education during the Covid-19 pandemic: (1) The teaching mode and the digital tools that support music education; (2) The challenges and benefits in teaching and learning music; (3) The stress and well-being of music teachers and students. The study revealed that music teachers mostly use digital tools to promote students' creativity, support learning, and assess outcomes. During the Covid-19 pandemic, teaching and learning music were associated with several challenges: learning organization, providing the material and technical base, learning to play musical instruments, communication and support for students. That resulted in increasing the workload and a lack of control over equipment and performance, which affected the well-being of music teachers. Despite the challenges, music teachers seek and create several solutions to improve the overall effectiveness of music education in the changing epidemiological environment. The findings describe the impact of the Covid-19 pandemic on music education and help music teachers to understand the problems that occurred during the pandemic.

Keywords: Benefits, challenges, Covid-19, literature review, music education, music teachers, students, well-being

Introduction

The Covid-19 pandemic has had a dramatic impact on many areas of life. It has paralyzed not only the economy but also the education system worldwide. In response, new approaches were developed to ensure learning continuity during the pandemic at all stages of education. In 2022, UNESCO published an overview of the impact of the Covid-19 pandemic on the education system in general (Meinck et al., 2022). Many countries worldwide, including Latvia, have introduced some form of remote learning, which often lasted for several months. The restrictions caused by the pandemic have forced teachers and students to learn different technologies to reduce the learning gap and ensure the educational process during the crisis. The success of a new or upgraded technology deployment into the education system was achieved within one year only, which could not be possible in normal conditions. As a result, technology became an integral part of the learning process. Many researchers believe that implementing technology in the learning process was not easy for teachers and students (Akarsu, 2021; Dotan et al., 2021; Marshall, 2020; Spieker & Koren, 2021).

The music learning process is based not only on an individual but also on joint music-making. Because of that, music education faced different challenges at all stages and forms during the Covid-19 pandemic. One of the challenges was to provide the process of joint music-making by learning remotely. Linda Thornton believes there is no technological solution to making music together but in different places (Thornton, 2020). The music subject is based on the interaction between multimodal sensory and auditory-motor (Cheng & Lam, 2021), which is why learning music online has had a more dramatic effect compared to other subjects.

By the end of the first wave of the pandemic, music teachers in general, high and vocational education stressed that it was time to prepare for the challenges ahead. For example, Michele Kaschub has urged teachers to review curricula and think about transforming face-to-face activities into distance learning projects. At the same time, she pointed out the necessity of improving music teachers' technological knowledge and students' skills in making digital music (Kaschub, 2020).

Music education is a field of practice where students should deal with several activities such as singing and playing musical instruments. These activities are better to be done face to face. This literature review aimed to summarize and identify current issues related to music education during the Covid-19 pandemic.

Methodology

Research Questions

The study raised three research questions: RQ1: What teaching modes adopted during the Covid-19 pandemic in music education are mentioned in studies, and for what purposes are music teachers using digital tools? RQ2: What are the challenges and benefits of teaching and learning music during the Covid-19 pandemic? RQ3: What are the common reasons for music teacher burnout, and how to ensure the teacher's and student's well-being during the music teaching and learning process in the Covid-19 pandemic? The study was conducted between November 2021 and April 2022 and based on a qualitative research design – scoping literature review.

Information sources and search strategy

The Sage Journals database was randomly selected to collect data about the impact of the Covid-19 pandemic on music education. The limitations imposed on selecting the publications for analysis are as follows: First, the papers were selected according to the keywords *Music education* and *Covid-19* using Boolean operator AND; second, the articles should have been published in full text and cover the most recent three years (2020–2022); third, the articles should have been published in English.

Study selection

According to the keywords, 78 scientific papers published in peerreviewed journals were selected: International Journal of Music Education, Journal of General Music Education, Music Educators Journal, General Music Today, Journal of Music Teacher Education, Research Studies in Music Education, British Journal of Music Education, Music Education Research, Journal of Research in Music Education, Musicae Scientiae, Psychology of Music and others. The selected papers were analysed in three stages: Title, abstract and keywords, and full text. It was assumed that the article should have included information about music education in the context of the Covid-19 pandemic to evaluate eligibility at all stages. If the relevance of the article content in one of the first two stages could not be clear to determine, analysis of the paper's full text will continue until confirming or excluding its relevance to the research topic. As a result, 47 full-text scientific articles were selected for analysis that were initially systematized by the year of publication, the educational level, and the study participants. Most of the articles were published in 2021, reflected problems in general education and were interpreted from the teacher's point of view. (see Figure 1).

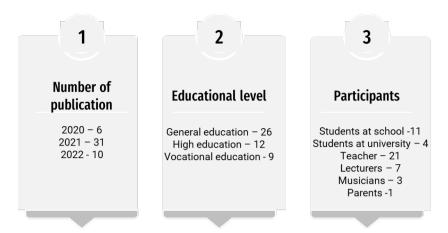


Figure 1. Systematization of papers selected for analysis (author's construction)

Data analysis process

The data analysis was based on developing codes, describing and comparing, categorizing and conceptualizing (Hennink et al., 2020). The content of scientific papers was studied using content analysis, which aimed to obtain a detailed description of the impact of the Covid-19 pandemic on music education and to develop categories describing the phenomenon. The literature review was focused on three thematic groups related to music education during the Covid-19 pandemic: The teaching modes and the digital tools that support music education; the challenges and benefits of teaching and learning music; the stress and well-being of music teachers and students. The obtained results are presented in tables, figures and descriptive ways.

Results

Teaching modes and digital tools that support music education

For decades, the learning process in a traditional education system takes place where teachers and students are physically present in the same classroom. Suddenly, the education system faced an unprecedented situation that required immediate action. The educational institutions were forced to move from face-to-face learning to remote learning due to the Covid-19 pandemic. Various concepts are used in paper analysis to describe learning that does not occur in school rooms. The concepts used by researchers while analysing music education in the context of the Covid-19 pandemic often are *online*, *remote* and *distance* (see Table 1).

Table 1. Teaching modes that supports music education (author's construction)

Concepts	f%	Study
Online	34.2	
learning		Biasutti et al., 2021; Carter, 2022; Goodman, 2020; Norman, 2022; Norman, 2021a; Norman, 2021b; Savage, 2021; Spieker & Koren, 2021
instruction		Marshall et al., 2020
music-making		Cayari, 2021
lessons		Akarsu, 2021
teaching		Joseph & Merrick, 2021
classes		Yackley, 2021
Remote	28.9	
learning		Beirnes, 2022; Draper, 2021; Hash, 2021; Liu, 2021a; Norman, 2022; Norman, 2021a; Norman, 2021b; Park, 2021
music settings		Biasutti, et al., 2021
teaching		Nichols, 2020; Raschdorf et al., 2021
Distance	18.5	
learning		Hash, 2021; Shaheen, 2021; Thornton, 2020; Tsugawa, 2022; Ververis & Apostolis, 2021
coteaching		Hietanen et al., 2021
education		Akarsu, 2021
Virtual	13.2	
learning		Bucura, 2022
teaching		Yackley, 2021
schooling		Koner & Weaver, 2021
musicking activities format		Merve et al., 2021 Beirnes, 2022
Blended	2.6	
music teaching		Beirnes & Raudles, 2022
Digital	2.6	
learning		Duncan, 2021

The concept *online* is used in connection with the words such as *learning*, *instruction*, *music-making*, *lessons*, *teaching* and *classes*. Online refers to the condition of being connected to the internet through a computer or other devices. The concept of *distance* is associated with the teaching/learning process and the education system in general. It marks the distance in time,

space and social isolation between groups. The concept of *remote* is used often in combination with *learning, teaching* and *music settings*. Remote learning means that both teacher and student are not physically in the same room, and the information is transmitted using technology. The key elements of such a teaching/learning process are time, communication, technology and planning. The remote learning process can occur either synchronous in peer-to-peer interaction and cooperation at a concrete time or asynchronous with the activities that do not depend on the teacher.

Concepts such as *virtual*, *blended* and *digital* have been used uncommonly in music education in the context of the Covide-19 pandemic. *Virtual* is used in connection with the student's involvement in creating virtual musical performances. *Blended music teaching* means that the learning process takes place digital and face-to-face. Digital learning, on the other hand, involves the use of digital tools, whether a student learns in a classroom together with classmates or outside it.

Using different digital tools such as Google Classroom, Padlet, Quizizz etc. is essential if the teaching process occurs outside the framework of the traditional face-to-face classroom. Music teachers can get many benefits from using digital tools in their work. Sean Beirnes and Clint Randles (Beirnes & Randles, 2022) found that teachers use digital tools to enhance students' experiences and enable them to be creative, which was not possible before the pandemic. Furthermore, the digital tools provide the teacher with the opportunity to better understand and support students during learning (Duncan, 2021), offer pre-recorded music lessons with interactive elements (Norman, 2021b), and help to assess students' level of understanding and facilitate feedback (Norman, 2021a). Digital tools and platforms help music teachers to share material, communicate, exchange messages and keep track of all work done (Biasutti et al., 2021). The use of digital tools promotes learning effectiveness and should be meaningful.

Despite the many benefits of using digital tools in the learning process of music, there are some challenges students and teachers face like increasing cognitive load, performing joint music-making and finding the needed material to learn music. Renee Duncan (2021) acknowledges that students should focus only on one digital tool when working with digital audio workstations to reduce cognitive load. In addition, to provide high-quality music education remotely, it is necessary to provide enough music learning videos (Park, 2021). Also, the most often barriers to performing joint music-making on one of the learning platforms are a low speed and quality of the internet connection (Nichols, 2020), which affects the audio quality and causes a signal transmission delay (Biasutti et al., 2021). Cayari (2021) suggests using several edited recordings to create a virtual ensemble, to solve this problem and engage students in joint online music-making.

Teaching during the Covid-19 pandemic boosted music teachers' digital literacy and pedagogical skills. Furthermore, it has enabled music teachers at all levels of education to provide a supportive music learning process, even in the unpredictable and changing environment that the world has faced in the last two years.

Challenges and benefits of teaching/learning music

Due to the Covid-19 pandemic, the music teachers experienced challenges and benefits. The first wave of the pandemic was especially difficult for them when suddenly the music lessons had to be organized in another way than usual. During the two years of the pandemic, music teachers and their students experienced significant challenges in teaching/learning music (see Figure 2).

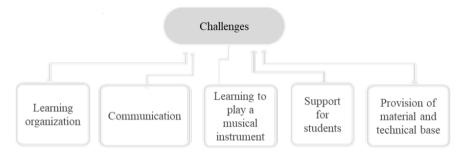


Figure 2. Challenges of teaching/learning music (author's construction)

One of the challenges encountered by music teachers and students was the quality of playing musical instruments. Thus, according to Beinres (2022), the music teachers should think about the teaching strategies used to develop the technique of playing musical instruments, and the students should find out how to get the necessary help from teachers. Making music online requires a significant contribution to developing lesson planning (Goodman, 2020), a creative approach (Yackley, 2021) and a focus on the technique and stylistic elements of playing a musical instrument (Ververis & Apostolis, 2020), which is not easy to achieve. Playing musical instruments is also associated with musical performances. A study analysis (Merve et al., 2021; Potter, 2021; Shaheen, 2021) revealed that providing group performance was a significant challenge for music teachers. Effective time planning (Potter, 2021), which helps structure individual meetings with students, is essential in preparing a musical performance during a Covid-19 pandemic (Liu, 2021a).

Music teachers and students also experienced limited access to musical instruments (Daubney & Fautley, 2021; Ververis & Apostolis, 2020), technology and technological training (Mercado, 2022), as well as problems

for some were caused by lack of internet connection and insufficient provision of educational materials (Marshall et al., 2020). In addition, teachers have encountered difficulties providing the necessary support for students with special needs and disabilities (Draper, 2021; Marshall et al., 2020). Furthermore, it was not easy for music teachers to provide equal learning opportunities for all (Nichols, 2021; Savage, 2021), to maintain learning motivation (Akars, 2021; Bucura, 2022; Marschall et al., 2020; Shaheen, 2021) and to facilitate feedback (Hietanen et al., 2021; Marschal et al., 2020).

Cooperation among teachers and students is considered an indicator of quality teaching and learning. The analysis of the studies reveals that during the pandemic, the future music teachers experienced a lack of cooperation with each other (Mercado, 2022) and general education music teachers did not have full opportunities to establish social connections with students (Norman, 2022) at the same time, the mutual social interaction was limited (Liu, 2022). Insufficient cooperation between students and teachers makes it difficult to maintain learning motivation and reduces students' activity and enthusiasm.

The literature analysis indicated that older students had adapted more easily to online learning than primary school children and older people in non-formal education. A study conducted by Jennifer Carter (2022) determined that future music teachers did not identify any problems with the transition to online learning because a system was developed to increase students' confidence in their musical and pedagogical abilities. On the other hand, Samuel Tsugawa (2022), who studied the online experience of older adult musicians during the lockdown, found that none of the seniors would have thought of making music at a distance if the conductor did not encourage them. A lack of face-to-face communication has made it harder for primary school students to maintain learning motivation (Marshall et al., 2020). However, parental support for their children to learn a musical instrument during the pandemic increases students' musical achievement (Oliveira et al., 2021). Parental involvement in the remote learning process during the Covid-19 pandemic is essential for primary school students.

The organization of online learning was time-consuming (Biasutti et al., 2021; Norman, 2022) and stressful (Biasutti et al., 2021). However, to mitigate the negative impact of the Covid-19 pandemic on the music learning process, music teachers have created a learning environment in which the student is safe, engaged, supported and challenged (Varner, 2021). In addition, the teachers considered the students' needs and preferences (Liu, 2021a), providing children with the opportunity to keep in contact with the surrounding environment (Liu, 2021b) and developed personalized teaching materials (Biasutti et al., 2021).

The Covid-19 pandemic created many challenges for music teachers and students but, at the same time, provided benefits for future pedagogical activities (see Figure 3). Literature analysis has shown that the organization of the teaching/learning process during the pandemic enabled music teachers to implement a student-centred approach, which according to Beinres (2022), promotes the student's involvement. The online environment allows students to take the initiative and make autonomous decisions about how they will learn and interact with teachers (Shaheen, 2021). Music teachers have the opportunity to incorporate more digital tools and platforms into the learning process (Beinres & Raudles, 2022; Hash, 2021), focus on individual music-making (Hash, 2021) and learn to deal with the unexpected situation (Liu, 2022). Music teachers also see advantages in sending and receiving material, especially in the absence of spatial and temporal constraints (Ververis & Apostolis, 2020). In addition, it is possible to make recordings while learning online, which provides many benefits for students as they can use it several times (Norman, 2022).

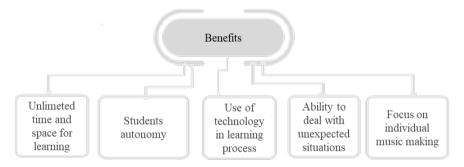


Figure 3. Benefits of teaching/learning music (author's construction)

Despite the challenges music teachers faced, they were able to demonstrate creativity, community, responsiveness (Thornton, 2020), perseverance, determination, innovation (Savage, 2021), flexibility, openness (Bucura, 2022) and critical thinking skills (Kaschub, 2020). The music teachers were loyal, collegial, and focused on overcoming challenges to facilitate student learning (Thorgersen & Mars, 2021). The music teachers also came up with creative ways to reach and support their students and shared their work with colleagues (Thornton, 2020). All benefits previously mentioned should be preserved in the education system to encourage each teacher to innovate and implement new technologies in their work.

The stress and well-being of music teachers and students

The last two years have not been easy for music teachers and their students. Covid-19 has often been one of the causes of teachers' burnout

because of the desire to keep an authentic music teaching and learning experience. Teaching as a profession is associated with humans and needs communication skills to interact with people. The teacher devoted everything to their daily work with students. Therefore, teachers must pay attention to how they feel and notice the depletion of physical and mental energy in time. Researchers found that remote and distance learning also influence students' emotional well-being (Liu, 2021a; Schwartz et al., 2021; Shaheen, 2021).

Stress is emotional or physical tension. Many situations during the pandemic were more difficult for music teachers and students than usual, which in turn caused some emotional or physical tension. Research (Kong & Wong, 2021; Miksza et al., 2021; Potter, 2021) revealed that the stress for music teachers was due to a heavy workload and a lack of control over equipment and performance. In addition, during the pandemic, teachers experienced few positive emotions, less involvement, and a lack of accomplishment. The anxiety of future music teachers was increased by general social mistreatment, time pressures and development challenges.

As a result of research analysis (Miksza et al., 2021; Rickers, 2021; Zabanal, 2021), it is concluded that music teachers should take care of their personal and professional well-being because the risk of a high level of stress and negative well-being is greater than the population average. As a consequence of paying attention to personal well-being, the music teachers improve their effectiveness and provide a positive learning environment for students.

What should be done to make music teachers and students feel good while teaching and learning in today's changing environment? Researchers determined that teachers should be compassionate (Kaschub, 2020), improve their knowledge of how to take care of their well-being (Zabanal, 2021), achieve work-life balance (Rickers, 2021), and play music or listen to music (Merve et al., 2021). On the one hand, music teachers gain more energy by being excited about what they are doing (Zabanal, 2021), but on the other hand, they should manage work time and define tasks to reach a work-life balance (Rickers, 2021). Understanding the elements that lead to burnout and paying attention to personal feelings can help music teachers respond to stress and take a rest on time if they feel tense (Napoles, 2022). Making music by using different strategies helps music teachers experience less anxiety (Merve et al., 2021) while listening to music can regulate psychological discomfort (Kong & Wong, 2021). To make students feel good, teachers can create a virtual space where students can share their emotions and encourage each other, create an exciting learning experience and a supportive socio-emotional learning environment, and take care of their needs and listen to them (Liu, 2021b). Moreover, the student can also

take care of their well-being by meditating, doing mindfulness practices (Koner & Weaver, 2021; Raschdorf et al., 2021), creating projects that explore their thoughts and emotions (Liu, 2021a), and using other ways to keep in touch with themselves and the environment.

Discussion

Music teachers and students had limited access to technology and a high-speed internet connection during the Covid-19 pandemic, and in this way, not everyone had equal opportunities to be involved in the teaching and learning process. That is consistent with reports provided by researchers in other fields. For example, in engineering education (Khan & Abid, 2021), there was a lack of internet access and limited resources. Medical students (Olum et al., 2020) faced problems with the quality of the internet connection, which in turn negatively affected their attitudes towards e-learning. Primary school teachers needed further training to improve their technology skills to teach literacy effectively in early primary grades (Dotan et al., 2021). English teachers, whose knowledge of digital tools was lower than expected, experienced technical difficulties that hindered their work. Teachers convince that they should learn the needed skills to use different technologies in remote teaching (Meirovitz et al., 2022).

Music teachers encountered difficulties in supporting students with special needs and disabilities. Other studies (Averett, 2021; Kotwal et al., 2022) that were not related to music education also found that children with disabilities were particularly vulnerable to the large-scale shock caused by the pandemic because many students with speech and hearing disabilities could not easily express feelings and emotions online.

Music teachers who work in general, vocational and high education systems did not always feel good during the pandemic due to increased workload and lack of balance between work and private life. That is confirmed by other studies (Beames et al., 2021; Cortés-Álvarez et al., 2022), which found that teachers' mental health was negatively affected by the pandemic, especially for teachers over the age of 45 who teach in preschool or primary school. Well-being is also negatively affected by the increased workload of physical education teachers (O 'Brien et al., 2022), and the growing demands and challenges of the teaching profession during a global pandemic may lead to a greater risk of burnout (Gicheva, 2021).

Conclusion

The first study question was to identify the teaching modes that are being studied in the context of music education during the Covid-19 pandemic and find out why music teachers use digital tools. The literature analysis shows that the most common concepts used in many studies were *online, remote* and *distance*, which indicates that these teaching modes were implemented to ensure the continuity of the music learning process during the pandemic. In addition, music teachers use different digital tools to stimulate students' creativity, support learning and assess progress. But to fulfil this, music teachers needed to develop themselves professionally due to epidemiological security measures and the transition of the education system to a remote learning process.

The second study question was to explore the challenges and benefits of the music teaching/learning process during the pandemic. Music teachers faced different challenges during the Covid-19 pandemic: learning organization, providing material and technical base, ensuring playing musical instruments, communication and offering support for students. However, despite the difficulties experienced by both music teachers and students, benefits were also mentioned in the literature explored. The Covid-19 pandemic provides opportunities to deal with uncertainty in an unexpected situation, incorporate technology into the learning process and focus more on individual music-making. In addition, music teachers are practising the student-centred approach more and more, thus ensuring student autonomy. During the pandemic, learning music had no constraints of time and space, and the way of receiving and sending material was much easier than learning face-to-face.

The third study question was to find out the common reasons for music teacher burnout and how to ensure the teacher's and student's well-being during the music teaching/learning process in the Covid-19 pandemic. It is concluded that the increased workload and the lack of control over equipment and performance had a significant impact on the well-being of the music teacher. However, researchers were more likely to provide recommendations to teachers on what to do to maintain well-being during the pandemic and less to discuss the specific situations that cause negative emotions. Achieving a good work-life balance, paying attention to how we feel and understanding the elements that lead to burnout help avoid negative emotions and provides a good feeling. Students can also take care of their well-being by consciously keeping in touch with themselves and the environment.

In further studies, it will be essential to determine whether the challenges facing the teaching and learning process of music have been overcome and the benefits gained during the pandemic have remained, as well as which digital tools supporting music education are being used in face-to-face learning.

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.

Averett, K. H. (2021). Remote Learning, COVID-19, and Children with Disabilities. *AERA Open*, 7(1), 1–12. https://doi.org/10.1177/23328584211058471

Beames, J., Christensen, & H., Werner-Seidler, A. (2021). School Teachers: The Forgotten Frontline Workers of Covid-19. *Australasian Psychiatry*, 29(4), 420–422. https://doi.org/10.1177/10398562211006145

Biasutti, M., Philippe, R. A., & Schiavio, A. (2021). Assessing Teachers' Perspectives on Giving Music Lessons Remotely during the COVID-19 Lockdown Period. *Musicae Scientiae*, 00(0), 1–19. https://doi.org/10.1177/1029864921996033

Beirnes, S. (2022). Learner-centered Pedagogy and Student Engagement in a Virtual Elementary Instrumental Music Program. *International Journal of Music Education*, *0*(00), 1–12. https://doi.org/10.1177/02557614221074378

Beirnes, S. & Randles, C. (2022). A Music Teacher's Blended Teaching and Learning Experience during COVID-19: Autoethnography of Resilience. *International Journal of Music Education*, *0*(00), 1–15. https://doi.org/10.1177/02557614221091829

Bucura, E. (2022). Considerations with Virtual Secondary Music Students. *Journal of General Music Education*, 35(2), 29–35. https://doi.org/10.1177/27527646211061504

Carter, J. (2022). Preservice music teachers in New South Wales: How Prepared do they Feel for Secondary Music Teaching in a Changing World? *Research Studies in Music Education*, 44(2), 1–14. https://doi.org/10.1177/1321103X211053799

Cayari, C. (2021). Creating Virtual Ensembles. Common Approaches from Research and Practice. *Music Educators Journal*, *107*(3), 38–46. https://doi.org/10.1177/0027432121995147

Cheng, L. & Lam, C. Y. (2021). The Worst is Yet to Come: The Psychological Impact of COVID-19 on Hong Kong Music Teachers. *Music Education Research*, 23(2), 211–224. https://doi.org/10.1080/14613808.2021.1906215

Cortés-Álvarez, N. Y., Garduño, A. S., Sánchez-Vidaña, D. I., Marmolejo-Murillo, L. G. & Vuelvas-Olmos, C. R. (2022). A Longitudinal Study of the Psychological State of Teachers Before and During the COVID-19 Outbreak in Mexico. *Psychological Reports, 0*(0), 1–32. https://doi.org/10.1177/00332941221100458

Daubney, A. & Fautley, M. (2021). U-turns in the Fog: The Unfolding Story of the Impact of COVID-19 on Music Education in England and the UK. *British Journal of Music Education*, *38*(1), 3–12. https://doi.org/10.1017/S0265051721000048

Dotan, S., Katzir, T., Lipka, O., & Shaul, S. (2021). Elementary School Literacy Teachers' Perceptions and Challenges During COVID-19. *Academia Letters*, 898, 1–7. https://doi.org/10.20935/AL898

Draper, E. A. (2021). Teaching Music Remotely: Strategies for Students with Disabilities. *General Music Today*, *34*(3), 39–41. https://doi.org/10.1177/1048371321990662

Duncan, R. (2021). Cognitive Processing in Digital Audio Workstation Composing. *General Music Today*, 0(0), 1–8. https://doi.org/10.1177/10483713211034441

Gicheva, D. (2021). Teachers' Working Hours During the COVID-19 Pandemic. *Educational Researcher* 51(1), 85–87. https://doi.org/10.3102/0013189X211056897

Goodman, S. L. (2020). Rehearsing Ensembles Online. *Music Educators Journal*, 107(1), 15–16. https://doi.org/10.1177/0027432120957434

Joseph, D. & Merrick, D. (2021). Australian Music Teachers' Reflections and Concerns during the Pandemic: Resetting the use of Technologies in 21st Century Classroom Practice. *New Zealand Journal of Teachers' Work*, 18(2), 109–126.

Hash, P. M. (2021). Remote Learning in School Bands During the Covid-19 Shutdown. *Journal of Research in Music Education*, 68(4), 381–397. https://doi.org/10.1177/0022429420967008

Hennink, M., Hutter, I., & Bailey, A. (2020). Qualitative Research Methods. SAGE Publications.

Hietanen, L., Sepp, A., & Ruismäki, H. (2021). Music Lecturers' Professional Development Through Distant Coteaching between two Universities in Finland. *Research Studies in Music Education*, 44(2), 1–17. https://doi.org/10.1177/1321103X211017553

Kaschub, M. (2020). Making Music Education Future-Ready. *Music Educators Journal*, 106(4), 19–20. https://doi.org/10.1177/0027432120924443

Khan, Z. & Abid, M. (2021). Distance Learning in Engineering Education: Challenges and Opportunities during COVID-19 Pandemic Crisis in Pakistan, *International Journal of Electrical Engineering & Education*, 0(0), 1–20.

Koner, K. M. & Weaver, A. (2021). An Exploratory Case Study of Mindfulness Techniques in a High School Band Program During the COVID-19 Pandemic. *Update: Applications of Research in Music Education, 00*(0), 1–11. https://doi.org/10.1177/87551233211050011

Kong, S. & Wong, W. (2021). Stressors and Psychological Distress: Music Listening as a Coping Strategy for Pre-service Kindergarten Teachers. *International Journal of Music Education*, *00*(0), 1–16. https://doi.org/10.1177/02557614211050986

Kotwal, R., Chauhan, G. S., & Ghosh, S. (2022). Challenges and Opportunities in Online Learning Amid COVID-19: A Study on Hearing–Speech Impaired Students of Jammu and Kashmir. *Media Watch, 13*(1), 118–134. https://doi.org/10.1177/09760911221086356

Liu, C. W. (2022). Imagine the Postpandemic Classroom. *Journal of General Music Education*, 35(2), 36–38. https://doi.org/10.1177/10483713211034435

Liu, C. W. (2021a). Navigating Music Teaching in Uncertain Times. *General Music Today*, 34(2), 39–41. https://doi.org/10.1177/1048371320961384

Liu, C. W. (2021b). Beyond Virtual Classrooms: Exploring Feelings in the Social World. *General Music Today*, *34*(3), 36–38. https://doi.org/10.1177/1048371320985169

Marshall, D. T., Shannon, D. M., & Love S. M. (2020). How Teachers Experienced the Covid-19 Transition to Remote Instruction. *Kappan, 102*(3), 46–50.

Meinck, S., Fraillon, J., & Strietholt, R. (2022). The Impact of the COVID-19 Pandemic on Education International Evidence from the Responses to Educational Disruption Survey (REDS). UNESCO.

Meirovitz, T., Russak, S., & Zur, A. (2022). English as a Foreign Language Teachers' Perceptions Regarding their Pedagogical-technological Knowledge and its Implementation in Distance Learning during COVID-19. *Helioyon*, *8*, 1–7. https://doi.org/10.1016/j.heliyon.2022.e09175

Merve, L., Erasmus, E., Morelli, J., Potgieter, H., Modise, J. & Viviers, E. (2021). Stories of the Role Musicking Plays in Coping with the COVID-19 Pandemic in South Africa. *Psychology of Music, 00*(0), 1–18. https://doi.org/10.1177/03057356211026959

Mercado, E. M. (2022). Preservice Music Educators' Perceptions of In-Person and Asynchronous Online Fieldwork Experiences. *Journal of Music Teacher Education, 3*(2), 41–54. https://doi.org/10.1177/10570837211061291

Miksza, P., Parkes, K., Russell, J. A., & Bauer, W. (2021). The well-being of music educators during the pandemic Spring of 2020. *Psychology of Music, 00*(0), 1–17. https://doi.org/10.1177/03057356211042086

Napoles, J. (2022). Burnout: A Review of the Literature. *Update: Applications of Research in Music Education*, 40(2), 19–26. https://doi.org/10.1177/87551233211037669

Nichols, B. E. (2020). Equity in Music Education. Access to Learning during the Pandemic and Beyond. *Music Educators Journal*, 107(1), 68–70. https://doi.org/10.1177/0027432120945151

Norman, T. D. (2021a). Teaching Music Online: Using Microsoft Stream and Forms to Share Prerecorded Lessons. *Journal of General Music Education*, *35*(1), 59–63. https://doi.org/10.1177/10483713211034440

Norman, T. D. (2021b). Teaching Music Online: Using Microsoft PowerPoint to Create Prerecorded Lessons. *General Music Today*. *34*(3), 45–51. https://doi.org/10.1177/1048371321996292

Norman, T. D. (2022). Reflections on Teaching General Music Online During Lockdown. *Journal of general Music Education*, 35(2), 52–55. https://doi.org/10.1177/27527646211061501

O'Brien, N., O'Brien, W., Costa, J., & Adamakis, M. (2022). Physical Education Student Teachers' Wellbeing during Covid-19: Resilience Resources and Challenges from School Placement. *European Physical Education Review*, *0*(0), 1–17. https://doi.org/10.1177/1356336X221088399

Oliveira, A., McPherson, G., Ribeiro, L. M., & Oliveira-Silva, P. (2021). Musical Achievement During a Lockdown: The Parental Support Miracle. *Research Studies in Music Education*, *00*(0), 1–16. https://doi.org/10.1177/1321103X211033794

Olum, R., Atulinda, L., Kigozi, E., Nassori, D. R., Mulekwa, A., Bongomin, F., & Kiguli, S. (2020). Medical Education and E-Learning During COVID-19 Pandemic: Awareness, Attitudes, Preferences, and Barriers Among Undergraduate Medicine and Nursing Students at Makerere University, Uganda. *Journal of Medical Education and Curricular Development, 7*, 1–9. https://doi.org/10.1177/2382120520973212

Raschdorf, T., May, B. N., & Searcy, A. (2021). Integrating Social-Emotional Learning into Our "New Normal" Teaching Elementary General Music. *General Music Today*, *34*(2), 42–48, https://doi.org/10.1177/1048371320961372

Rickers, D. A. (2021). Out of Bound(arie)s. *Journal of Music Teacher Education*, 31(1), 3–5. https://doi.org/10.1177/10570837211048356

Park, Y. J. (2021). Online Music Education for Sustainable Development: Analysis of Music Learning Videos in e-Hakseupteo. *International Journal of Music Education, 00*(0), 1–12. https://doi.org/10.1177/02557614211058800

Potter, J. (2021). Elementary General Music Performances and Teachers' Perceptions of Stress. *Research in Music Education*, 40(1), 36–40. https://doi.org/10.1177/87551233211010401

Savage, J. (2021). Teaching Music in England Today. *International Journal of Music Education*. 39(4), 464–476. https://doi.org/10.1177/0255761420986213

Schwartz, K. D., Exner-Cortens, D., McMorris, C. A., Makarenko, E., Arnold, P., Van Bavel, M., Williams, S., & Canfield, R. (2021). COVID-19 and Student Well-Being: Stress and Mental Health during Return-to-School. *Canadian Journal of School Psychology*, *36*(2), 166–185. https://doi.org/10.1177/08295735211001

Shaheen, M. (2021). Self-Determination Theory for Motivation in Distance Music Education. *Journal of Music Teacher Education*, 31(2), 1–12. https://doi.org/10.1177/10570837211062216

Spieker, B. & Koren, M. (2021). Perspectives for Music Education in Schools after COVID-19: The Potential of Digital Media. *Israel Studies in Musicology Online*, 18, 74–85.

Thorgersen, K. A & Mars, A. (2021). A Pandemic as the Mother of Invention? Collegial Online Collaboration to Cope with the COVID-19 Pandemic. *Music Education Research*, 23(2), 225–240. https://doi.org/10.1080/14613808.2021.1906216

Thornton, L. (2020). Music Education at a Distance. *Journal of Music Teacher Education*, 29(3), 3–6. https://doi.org/10.1177/1057083720928615

Tsugawa, S. (2022). Bridging the Digital Divide: Distance Music Learning among Older Adult Musicians. *International Journal of Music Education*, 00(0), 1–17. https://doi.org/10.1177/02557614221091888

Varner, E. (2021). General Music to Overcome Challenging Times. *General Music Today,* 34(3), 52–54. https://doi.org/10.1177/10483713211000727

Ververis A. & Apostolis, A. (2020). Online Music Education in the Era of COVID-19: Teaching Instruments in Public Music Secondary Schoolsof Greece During the 2020 Lockdown. In R. Thripp (Eds.), *Proceedings of ICSES 2020 – International Conference on Studies in Education and Social Sciences* (pp. 1–9), Istanbul, TURKEY. ISTES Organization.

Yackley, A. (2021). Developing Musicianship through Chamber Ensembles. A Sequential Unit Design. *Music Educators Journal*, 108(1), 34–42. https://doi.org/10.1177/00274321211027628

Zabanal, J. R. A. (2021). Research-to-Resource: Applying a Self-Care Framework to Music Education. *Update: Applications of Research in Music Education, 00*(0), 1–6. https://doi.org/10.1177/87551233211056995