Michael Pabst-Krueger / Annette Ziegenmeyer (Editors)

Perspectives for music education in schools after the pandemic

A joint publication by authors of the network of Music Teacher Associations in Europe

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Preface

Annette Ziegenmeyer & Michael Pabst-Krueger (Germany)

How and *what* can we learn from each other in times of a worldwide pandemic that effects the education system as a whole and music education in particular?

The global outbreak of the coronavirus pandemic showed that on the one hand people had to learn quickly how to manage how to interact and how to organize learning processes within a new framework. On the other hand, it became clear that it had never been so easy to look beyond the borders of one's own country and to get connected: The sudden need to interact via video conferencing (a possible tool that existed already before though) opened new doors to exchanges on a national and international setting. Everybody was participating in a world-wide learning process.

Since 2016, the Network of *Music Teacher Associations* in Europe (MTAs) under the umbrella of the *European Association of Music in Schools* (EAS) has exchanged and developed ideas and strategies on political work for music education in schools throughout Europe. Due to the outbreak of the pandemic, the annual meeting in 2020 had to take place on a video platform. The participants were very happy to exchange their recent experiences in teaching music during the pandemic and many forward-looking ideas for the further development of musical education were exchanged during these meetings. Furthermore, the idea arose to bring all these different perspectives from the different countries together in a joint publication.

This led to the idea of this joint publication entitled *Perspectives for music education in schools after the pandemic* for which representatives of European MTAs were invited to bring together the different experiences and perspectives that could be drawn from these challenging times during the pandemic (which is still going on).

Almost all articles were written by teams of authors from different European countries which made it possible to get a broad perspective on the specific aspects that became relevant during Corona.

The first article focuses on reactions and good practices for music teaching in schools from three countries: Germany, Greece and Turkey. The authors Alexis Kivi, Dimitra Koniari, Sezen Özeke and Hatice Çeliktaş analyze and compare how teachers reacted in different phases of the lockdown. In their different research projects, they focus on challenges of online and face-to-face teaching under the hygiene routines and analyse positive and negative effects of online teaching.

The second contribution presents one of the last articles by Irena Medňanská from Slovakia who unfortunately passed away shortly after drafting her contribution. In the article, Medňanská reflects on the challenges of teaching music in schools in Slovakia during the pandemic which were additionally impaired in many places by difficult technical and social framework conditions. Her assistant Mária Strenáčiková, Jr. helped us edit the article for this publication.

Third, Manuela Encarnação, Maria Helena Vieira and Georg Brunner bring together Portuguese and German perspectives and discuss results of their research on approaches and benefits of online teaching at schools and universities.

The fourth article by Benno Spieker and Morel Koren describes the general potential of digital media, focusing on music education in the Netherlands and Romania. As an example of best practices in online teaching and practicing Solfege, a platform called *Solfy*, which is already operating in its BETA form in Romania, is described in this article.

Finally, Mitsi Akoyunoglou (Greece) and Nataliya Domnina (Switzerland) draw their attention to the question of how to reach socially disadvantaged students in a hybrid music classroom and present various approaches that can be used by music teachers to promote an all-inclusive music class. Based on the *Universal Design for Learning* (UDL) the authors offer an educational framework guided by principles that promote equity and access to education for all.

With this publication and the ongoing exchange within the MTA-network, we want to encourage music educators in all European countries to get connected, to look beyond the borders of their own country, to learn from each other and seek to solve the challenges of these pandemic times together. The various perspectives brought together in this rather small publication shows that it is worth taking a step back from one's own experiences and to open up for wider perspectives and new impulses.

As the editors of this joint publication, it was a pleasure for us to work together with a team of highly engaged colleagues, to bring together their expertise and work on perspectives for music education during and beyond the corona pandemic. We would like to thank every one of our authors very much for their commitment, their dedication and their thoughtful collaboration.

(Luebeck & Hamburg, Germany, 15ᵗʰ March 2021)

Content

The experience of music teachers from Portugal and Germany during the Covid-19 pandemic: hard times and creative solutions

Manuela Encarnação & Maria Helena Vieira (Portugal), Georg Brunner (Germany)

Abstract

The effects of the Corona pandemic that started in March 2020, in music classes all over the world most certainly present similarities and also national or local differences. Several months after the outbreak of the virus, music teachers started realizing that the same phenomenon that was isolating them and separating them from students and colleagues was also bringing them closer together in different ways, in digital ways, and was also generating new contacts across borders and across languages. Following the suggestion of the network of Music Teacher Associations in Europe three researchers from Portugal and Germany decided to take a closer look at the changes brought about by the pandemic in music classes in both countries (Portugal: schools; Germany: universities). The goal was not so much to compare changes in similar groups and classes, but to explore the deeper meaning of those changes and the reactions of the Portuguese and German teachers by putting them into perspective: an international perspective.

Introduction

The two studies presented here focus on music educators during the corona pandemic in summer 2020. Our explorative goal (Stebbins, 2001) was to report the experiences of music teachers during the pandemics in different countries (Portugal and Germany), in different levels of studies (Basic/Secondary and University levels), and in different types of schools (general and specialized). The Portuguese study focused on a group music subject offered at the Basic and Secondary levels in specialized schools as "Formação Musical" and at the Basic level in general schools as "Educação Musical"; the German study focused on music teaching at the university level, with emphasis on special professional practice areas such as individual vocal/instrumental tuition, practical piano lessons, ensemble conducting, music making in class, ensembles, and didactic events with practical components.

In both studies the aim was to find out what kind of management systems and video platforms were used, how synchronous and asynchronous teaching was designed, what concrete media were used in teaching, how communication and feedback took place and, above all, what educators see as positive effects of online teaching and what they would like to integrate into their teaching in a post-pandemic period. The results show similar approaches by the teachers in both countries, but differences in the levels of studies, types of schools and school subjects, and also some specific solutions for certain subjects.

Above all, the results show that all educators faced these hard times creatively and with a positive outlook.

The school subjects of "Formação Musical" in specialized music schools and of "Educação Musical" in general schools in times of Covid-19 pandemic. Sharing results of a study of the Portuguese Association of Music Education

After the Portuguese Government approved, on March 13th 2020, a group of exceptional and temporary measures concerning the epidemiological situation caused by COVID-19 through Law-Decree nr. 10-A/2020, the Portuguese Association of Music Education created a website to support teachers (APEM, n/d[18]) and it also decided to gather more specific information from music teachers about the functioning of some school subjects of the General Education system (GE) and of the Specialized Education system (SE) during the pandemic period.

The school subjects chosen for the initial study were collective or group school subjects (not individual teaching): the "Educação Musical" school subject of the 5th and 6th grades of GE and the "Formação Musical" school subject of all grades of SE. The choice of these school subjects was made in consideration of the facts that they were both collective subjects and that they share some contents and pedagogical procedures, despite belonging to different educational subsystems. Two focus group meetings were organized online, one gathering "Educação Musical" music teachers of the GE subsystem and the other gathering "Formação Musical" music teachers of the SE subsystem.

The main goal was to obtain a descriptive panorama of what happened in those school subjects in terms of the teaching and learning processes during the pandemic period and also to gather perspectives for music education in schools after the pandemic.

Methodology

The selection of teachers for the organization of these two Focus Groups was done according to a few convenience sampling criteria (Etikan, Musa & Alkassim, 2016): they had to belong to the public system of education, either to the GE subsystem or to the SE subsystem (because of the similarity in their organization, functioning and funding principles); they had to teach the selected collective school subject (and therefore be able to provide the specific information desired); they had to fulfill the "1 teacher/1 school ratio" (all the contacted schools and all the main geographic areas of the country – North, Center, South, Azores and Madeira – could be represented in the study).

All SE and GE selected teachers were sent an e-mail before the online meeting with the description of the organization and timings of the Focus Group, and with an Interview

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[18]   https://apem.org.pt/apoio-ao-professor/recursos-web/

Script indicating the three main areas of research focus. The group interviews would last for 2 hours maximum and the interview script was the same for both Focus Groups. It consisted of the following parts:

Part I – Adaptation to distance learning
   a) Adaptation to distance learning: processes, decisions and summing-up
   b) Digital communication tools: platforms and apps
   c) Synchronous and asynchronous communication management
   d) Percentage of students with regular attendance of online "Formação Musical" (SE) and "Educação Musical" (EG) school subjects

Part II – Pedagogical practices
   a) Pedagogical practices and strategies
   b) Evaluation practices
   c) Changes during the pandemic period in the program domains of experimentation and creation (Composition), interpretation and communication (Interpretation) and appropriation and reflection (Audition)

Part III – Positive outcomes
   a) Positive outcomes of the pedagogical experiences during the pandemic period
   b) Selection of what will be adopted next school year: digital tools, pedagogical practices, evaluation procedures, a.s.o.

This initiative was well accepted by all participants as it represented an opportunity to share information and reflect collectively upon the effects of the pandemic. Some teachers underlined that they seldom have the possibility to get together, even within the same school, and professional isolation was mentioned as a problem that characterizes the profession of a teacher and the history of these school subjects. Therefore, the meetings, which took place on the 6th and the 13th of July through the APEM *Zoom* platform, began in a tone of motivation and eagerness.

There were 12 "Formação Musical" SE teacher participants (one of them was an instrumental teacher in representation of the "Formação Musical" teacher) and they represented 12 specialized music schools: Braga, Porto, Aveiro, Coimbra, Lisboa, Loulé, Funchal and Ponta Delgada Conservatories; the Instituto Gregoriano, and the School Groups Luís António Verney, Vialonga and Bemposta. Only two of the country's public specialized schools didn't send a "Formação Musical" teacher representative (Horta and Angra do Heroísmo Conservatories, both in the Azores Islands).

In representation of the GE subsystem schools there were 15 "Educação Musical" teachers of 13 different districts and archipelagos: Bragança, Viana do Castelo, Porto, Abrantes, Odivelas, Amadora, Sintra, Almada, Mértola, Beja, Portimão, Funchal e Ponta Delgada. This selection covered the desired regions of North, Center, South, Madeira and Azores.

This article focuses on the results of Part III (Positive Outcomes) of the Focus Group Interviews that took place both with the Specialized Schools music teachers and the General Schools music teachers. The interpretation of these results aims to contribute to the broader European perspectives on music education after the pandemic.

Focus group of teachers in specialized music education: Results, positive outcomes and future perspectives

The exceptional situation of the pandemic created opposite feelings in the teachers of specialized schools. On the one hand, the weaknesses of the school system and of social and family structures became more visible; on the other hand, teachers had a new opportunity to look at the students from a different angle. This section describes the opinions of these music teachers about the positive things they believe will remain after this pandemic experience in the next school years:

a) *Educational system and organization*: to keep using the institutional e-mail address created for all students during the pandemic period; to promote online school meetings for teachers in order to reduce the distance and isolation among them; to create resource centers for the students; to fight for a National Curricular Program for the "Formação Musical" school subject

b) *Technology*: to develop more technological skills in order to promote students' autonomy; to gain more confidence in the use of technologies; to develop students' technological skills, so that they might benefit from the diversity of digital tools available

c) *Communication*: to review the offer of the types of classes and lessons: face-to-face, online or mixed models; to consider reducing face-to-face time and increasing the use of mixed models in order to alleviate the students' schedule for other autonomous work; to use *Google Classroom* for student work management and better availability of pedagogical resources for each class; to enforce compulsory use of an open camera during synchronous online classes for better knowledge and recognition of students; to promote the sharing of information and ideas; to do more networking and to use the musical part of the website of the *Associação Portuguesa de Educação Musical* more often; to promote other long distance communication channels

d) *Pedagogy*: to increase the students supervised individual musical work; to use more technological tools for work on aural skills, such as Teoria.com and Ear Training; To reflect upon the values involved in education, such as cooperation and sharing of materials and resources; to reconsider and reorganize evaluation criteria; to pay more attention to formative assessment in comparison to summative assessment

Focus group of teachers of general music schools: Results, positive outcomes and future perspectives

This section describes the generalist music teachers' opinions about the positive things they believe will remain after this pandemic experience in the next school year. The aspects mentioned by the teachers that they are keeping in mind for pedagogical use next year are the following:

a) *Educational system and organization*: to keep using the institutional e-mail addresses of students and teachers created during the pandemic period; to reduce inequalities in the access to computer equipment and digital tools; to gather a variety of efforts to improve schools' digital connectivity (government, town halls, businesses, firms); to always have the goal of maximizing school meetings time by promoting more online meetings; to regularly evaluate and reflect upon the music section of the national TV program *#EstudoEmCasa*

b) *Technology*: to explore online resources for music creation, interpretation and critique; to keep using and promoting the use of online resources for teaching and learning; to ensure that all students know how to use the main digital tools and platforms recommended by the school from the beginning of the school year; to plan to attend regular teacher training short courses on the theme of the use of educational technologies for music teaching and learning and for music performance and creation projects

c) *Communication*: to keep using digital tools and platforms such as *Google Classroom* that might allow for these new forms of teaching, both in face-to-face and in remote situations, or in mixed models; to privilege mixed modes of teaching and learning (face-to-face and online); to promote asynchronous activities as a way to develop students individual work; to support the rhythm and progress of classroom activities and goals; to promote asynchronous activities as a way to involve shy students

d) *Pedagogy*: to see the role of the teacher more as a facilitator and supervisor of the learning process; to consider the digital tools provided by the schools (even if outdated) when creating pedagogical materials and activities; to plan more organized asynchronous classes, taking into consideration students with different learning rhythms and making room and time for clearing doubts, giving feedback and also for assessment of contents and competences; to reinforce project work; to foster cooperation among students through specific work projects; to create a list of web resources; to reconsider assessment models in accordance to teaching and learning strategies; to promote video recording of solo performances and of student compositions in order to promote sharing and class discussions about them; to place formative assessment at the center of the teaching and learning process; to consider video recording as a means of assessment of student learning; to create pedagogical strategies that might allow for a more frequent use of the mobile phone as a learning tool; to develop evaluation and reflection habits about the teaching and learning

process among teaching professionals; to value *gamificaton* as a motivational strategy in the learning process; to consider and to experiment with the possibilities of the *flipped classroom* approach: anticipated posting of video classes followed by synchronous classes (in which music performance, oriented aural exercises and group discussions might then occur)

Some conclusions

The adaptation of the specialized music teachers of "Formação Musical" and the generalist music teachers of "Educação Musical" to remote teaching and to the sudden change of their pedagogical practices was not very different, as the analysis of the focus group interviews transcription showed. The perspectives of the positive outcomes that might remain in the future in a post pandemic period are also generally similar. Convergent ideas predominate.

One of the most important findings is that all teachers consider that it will be very important to keep valuing asynchronous activities mediated by technology and to promote student autonomy in work and study. Another important finding is that teachers underlined the importance of reflecting upon the professional practice and of developing more cooperative work.

All participants mentioned that such a sudden change of their pedagogical practices and routines caused profound reflection and evaluation of their values and goals as educators and generated a state of permanent uneasiness at different levels, a state of unusual awareness conducive to more conscious decisions.

Most teachers consider that a change into a mixed model of face-to-face and online activities will be very plausible, if not desirable, in the future. However, they underline the absolute need for face-to-face teaching and learning processes. Considering classroom face-to-face interaction as fundamental for the experience of the learning process itself, teachers defend that a mixed model would be a suitable strategy to enrich synchronous face-to-face activities in the classroom, by actually promoting more student involvement and more adequate student differentiation in pedagogical supervision by the teachers.

"Music is communication and sharing. No matter how much you try to find digital alternatives nothing can replace classroom face-to-face interaction completely, what you live there and what you feel there" (PEG 10)[19] one of the teachers underlined. This means that the face-to-face musical and learning experience can be enriched, and even become more democratic, through the use of complementing asynchronous musical activities, adjusted to the characteristics of each student, and allowing even for the revelation of

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[19] Original transcription translated by the authors: "Música é comunicação e partilha. Por mais que se tentem encontrar alternativas digitais nada substitui completamente o contexto presencial de uma sala de aula, o que lá se vive e o que se sente".

surprises and student diversity and exceptionalities. This idea was reinforced by teachers in both focus groups, who also made a point to remind us that without technologies and without this new time management and online procedures some (new) realities would never have been known.

The circumstances that forced teachers to adjust to a new way of teaching ended up allowing also for the recognition of the need for improvement in school contexts and pedagogical practices. In fact, they transformed the externally provoked digitalization of schools and pedagogical processes (which was already slowly taking place) into an endogenous phenomenon searched by teachers and students themselves. Many digital tools and strategies that were already available in schools finally started being used. The experience made it clear for teachers that there is a need for more teacher training and for permanently setting lifelong learning goals, particularly with reference to the use of digital technologies.

It is obvious that only a great financial investment in schools, in the educational system, and in all its dimensions will make these ideals come true. It is also obvious that only well-defined educational policies and strategies will make it possible to promote and stabilize a real change in the pedagogical practices in the whole of the educational system of music education, both in the generalist and the specialized branches. Otherwise, all these "positive outcomes" identified by the music teachers might be forgotten.

Finally, it is interesting to note a few differences between the two groups of participating teachers concerning their teaching strategies: while the specialized music teachers seem to underline the importance of musical training (aural skills, reading and writing skills, theory) the generalist music teachers seem to pay more attention to interpretation and experimentation. This might actually reflect traditional perspectives already occurring in face-to-face classroom activities. One of the teachers mentioned that he felt "a musical evolution in the knowledge of music contents not usually found in the traditional classroom, a knowledge that resulted from the use of gamification strategies and other strategies implemented and generated more student involvement"[20] (PEG6). Another teacher pointed out the opportunities of the online ambience and underlined that "the dimension of experimentation and creation might be one of the most interesting areas to explore in a remote learning context"[21] (PEG10).

Another difference between teachers from specialized music schools and teachers from general schools is that the specialized music teachers became concerned with unifying a national curricular program, while the generalist teachers (who already follow a national

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[20] Original transcription translated by the authors: "uma evolução musical a nível de conhecimentos musicais como não costumo ter em sala, pois através da *gamificação* e de toda a estratégia que montei à volta, (os alunos) foram muito mais empenhados".

[21] Original transcription translated by the authors: a área da experimentação e da criação pode ser uma das áreas mais interessantes a explorar num contexto não presencial".

curricular program for many years) seem more concerned with social justice and with reducing inequalities in computer and technology access for all students. Generalist teachers also seem more eager to discover new and diverse pedagogical approaches mediated by technology.

In a word, the specialized music teachers of the "Formação Musical" school subject and the generalist music teachers of the "Educação Musical" school subject adapted quite well to the new conditions brought about by the Covid-19 pandemic, evolving from a more intuitive adaptation to a more conscious perspective of the structural, political and philosophical implications of the change. Teachers are also aware of the paradigm shift that is occurring in the teacher-student relationship which is characterized by the need to promote more moments of asynchronous and autonomous student work, more individualized supervision of that work, and differentiated attention to each student. Instead of inducing massification, digital technologies are opening communication doors to the understanding of each student as an individual.

The experience of music teachers at higher education institutions (HEI) in Germany in times of the Covid-19 pandemic. Sharing results of an online survey

A research team from Germany (Georg Brunner, University of Education Freiburg; Gabriele Schellberg, University of Passau; Ilona Weyrauch, University of Koblenz-Landau) conducted a survey with university teachers who teach future music teachers for various school types about their experiences with online teaching during the semester following the first outbreak of the virus (March to July 2020)[22]. The survey was conducted via an online questionnaire[23].

Sample

A total of 127 people took part in the survey. Since lessons with practical musical activities play a central role especially in the area of music teacher training, the results concerning these broad activities are presented below. They refer to group 1 and encompass expert practitioners: individual vocal/instrumental tuition, school-practical piano, ensemble conducting, music making in class, ensembles. However, it is interesting to take a

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[22] As an example for a university in Germany during the Corona summer semester, see Brunner, 2021. For further research, see Krämer & Hammerich, 2020; University Göttingen 2020.

[23] The questionnaire was composed of items from the questionnaire of the eLCC lecturer survey 2018 (version 3, as of 19.11.2019) of the University of Osnabrück as well as newly formulated items that resulted from results of discussion forums on online teaching in the summer semester 2020 at the participating universities.
(https://www.researchgate.net/publication/329075054_Ergebnisse_der_Lehrendenbefragung_2018_-_Digitale_Medien_in_der_Lehre_Hochschule_Osnabruck[06.01.2021]). The questionnaire was sent out via distribution lists of various university organisations. The procedure is based on convenience sampling criteria (Etikan, Musa & Alkassim, 2016).

comparative look at group 2 (expert academics) which covers the areas of Music Education (including music history, music theory/aural training) and Teaching Methodology and therefore has a stronger focus on the teaching of theoretical-cognitive learning content. This creates a nuanced picture of the effects of distance learning.

The two groups of the sample are almost equal in their size: group 1 (G1; expert practitioners, n = 63) and group 2 (G2; expert academics, n = 64). Of these, 47% (n = 64) were female. Further details about the sample can be found in the tables[24]. There are noticeable differences between the two groups (Tab. 1) with regards to the distribution of the positions of the teachers. While in group 2 the individual status groups (adjunct teaching staff/others are seen as one status group) are more or less equally represented, adjunct teaching staff clearly predominates in group 1. This is structurally due to the fact that at HEI, music practice is often taught by adjunct teaching staff. This is also reflected in the type of courses taught (Tab. 2), Since in G1 the focus is on music practice, over 2/3 of the courses were applied exercises. Students from the following school types were taught (Tab. 4).

Use of learning management systems and video platforms – synchronous teaching

Unlike schools, HEI have their own intranet with systems for campus management and learning platforms that make it possible to provide digital learning materials. In addition, all teaching staff as well as students are equipped with digital devices. Basically, a distinction can be made between synchronous teaching (e.g. personal attendance in class; during the pandemic via video conference systems) and asynchronous teaching (learning materials including assignments are made available to learners on learning platforms in the intranet for a certain period of time). For synchronous teaching - especially for larger seminar groups - the HEI were still poorly equipped with digital video conferencing tools until before Covid-19. The individual HEI sought to obtain suitable solutions very quickly - after examining data protection issues.

Table 5 shows whether and which learning platforms (intranet) were used. It also clearly shows that G1 made significantly less use of the provision of materials for asynchronous teaching via intranet than G2 (G 1: 34.9%; G 2: 92.2%). The most used platforms were Moodle and ILIAS (s. Tab. 5). Both groups made intensive use of video conferencing systems (G 1: 87,3%, G 2: 92,2%) – especially *Zoom* (G1: 63,5%, G2: 76,6%) (s. Tab. 6).

This is also reflected in the proportion of synchronous teaching. Here, despite the high use of learning platforms (intranet) and thus asynchronous shares, there can be seen a particular high proportion of synchronous teaching via video conferencing systems in G2. In other words, asynchronous teaching was frequently supplemented by synchronous teaching (s. Tab. 7).

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[24]   The tables are available in the appendix following up on this article.

Feedback

In times of distance learning, communication with students including feedback plays an important role. (Here, the items were taken into account which had a mean value of more than 2.5 on a scale of 1 to 5 (does not apply at all - fully applies)). In both groups, feedback on assignments is very important. This took place mainly via e-mail or in the video conferences (s. Tab.8).

Teaching design in times of Corona

What was the design of the teaching (in the following, only statements are included which in the mean value were above the value of 2.5 in at least one of the two groups; since not all questions were answered by the participants, "n" is given in each case)? Digital learning units were created in both groups. The use of assignments, tests or quizzes, screen-sharing during *Zoom* sessions played an important role in both groups.

By comparison, G2 provided more PowerPoint slides in their teaching, as well as audio recordings or ready-made videos, which is most likely owed to the specific content of their teaching. G2 also made more use of breakout rooms (e.g. for group work) during video conferencing. On the other hand, singing/playing music to students during the video conference, as well as the submission of student-produced audio recordings, played a more important role in G1 than in G2. It is also interesting to note that - despite the general scepticism about videoconferencing in the context of collaborative singing/music making (see Tab. 9), - a few (G1 n=22, G2 n=13) did indicate that they had made music via videoconferencing.

How was teaching assessed?

Analogue teaching is unanimously rated significantly better than digital teaching. Nevertheless, participants also say that students engage at a deeper level with the learning material. G2 saw the assessment of the performance in the exams as less problematic than G1 (s. Tab. 10).

Advantages of online teaching

The responses to the open questions in which the advantages of online teaching were described by both groups are very important with regard to perspectives for Music Education after Corona. Different generic categories can be distinguished. These may serve as indicators for what could remain after the pandemic.

Flexibilization/Organization

- free time management for students (self-regulated/individual learning)
- flexibilization of class hours

- independence of location (no journeys, savings on travel costs, also internationally)
- interactive working across time and space
- accessibility (disabled or sick students can participate),
- higher and more timely student attendance

New ways of learning

- more in-depth acquisition of content by creating student videos and audios
- intensification of analytical work on teaching sequences (with analytical short films)[25]
- in the area of new media (apps/programs) optimised work through screen sharing in video conferences development of a range of skills (e.g. reading scores, percussion technique, interpretive questions, practicing with tuning forks in breakout rooms)
- Wide accessibility and visualisation of work results, also afterwards (e.g. artistic-practical activities, text work, essays, chats, files, recordings)
- Optimization of work in small groups (breakout rooms)
- Reduced hierarchies in discussions via video conferences
- Possibility of self-monitoring (self-tests, self-directed learning)

Increasing effectiveness

- More individual and effective feedback (made possible via submitted videos or audio recordings, thus changing practice strategies; for international and technical aspects)
- Better learning outcomes through digital asynchronous provision of learning content and self-reflective tasks;
- Forcing teachers and students to structure/focus more (no distraction by "side conversations")
- Intensification of learning success through targeted (written) tasks and feedback

Improved communication

- Better accessibility including in difficult situations (also outside of fixed teaching hours)
- More focused conversations
- Providing opportunities for peer feedback
- More individualized relationship management

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[25] An analytical short film (ASF) is understood as a short film of about 2–3 min length together with an explanatory text (Complementary Information) that shows a specific perspective on videotaped classroom praxis

(New) learning materials

- Video recordings, audio and film footage in addition to PowerPoint presentations
- new types of assignments (e.g. creating an audio or video file, self-tests),
- faster and better visualization of results
- less paperwork
- quicker access to documents such as texts, etc.

Meta level

This point also includes critical comments: The following is brought forward, especially by G1:

- G1: online teaching as an "emergency program", ("acceptable emergency solution", "better than no teaching at all")

but also - especially from G 2:

- class preparations are more precise
- sustainability
- transparency, participation for all, changeability
- use of experts from abroad.

Final evaluation and outlook

Despite the innovative approaches born of necessity, the verdict on online teaching in the field of expert practitioners (G1) is rather negative. In the area of one-to-one teaching, the limitations (no interaction possible due to time latency, no fast and direct communication via video as in face-to-face teaching, no perception of the whole person via video possible, audio quality even at best rather moderate, etc.) are considerably higher than the benefits. For musicological, didactic or music-theoretical lectures (expert academics), digital teaching is certainly seen as having potential to be further developed for the post-Corona period.

This is reflected in the answers to the question "What could remain after "Corona"?": On the one hand, considerably more items came above the threshold value of M=2.5 (s. Tab. 11) when using comparable questions to those used in "Teaching during the Corona pandemic". This could be related to the fact - indications of this can be found in the free responses - that one has been inspired by the questions for future teaching. On the other hand, however, there is a clear difference between the two groups.

Although many people want to return to their old teaching concepts after Corona, the sudden switch to distance learning has opened up new perspectives. In face-to-face teaching, an attempt will be made to integrate some elements of digital teaching. In particular, the communication channels with students via digital media will be retained,

and digital forms will be used for feedback. In the same way, learning platforms have worked well and will be retained. Video conferencing tools also seem to have met with a good response and their use may be continued, including screen sharing options. Digital learning units and the provision of self-created and ready-made audio files are to be made more permanent. On the other hand, students are also expected to submit self-produced videos and audio files.

Teachers in G2 will continue to provide PowerPoint slides with their own audio narration, as well as learning videos. These teachers will also put more emphasis on tasks, tests or quizzes (s. Tab. 11).

Conclusion

Quotations from the free responses should serve as a summary for the perspectives after Corona:

"A good and responsible balance between digital and in-person teaching would not harm at all." And with regards to professional practice: "In principle, online teaching is more of an 'emergency solution' for me as long as there are no better programs available". "My students, in their isolation, were very happy that I made contact and we were able to work together on a weekly basis. They had time to practice, to enjoy the discussion and to make music". And last but not least: "Stay open, enthusiastic and willing to learn!"

What can we learn from the Portuguese and the German studies about the impacts of the Coronavirus outbreak in music teaching and learning processes?

Despite the many differences between the studies – and maybe because of them – some final thoughts emerge. The Portuguese study focused on pre-university levels of music education (Basic and Secondary) and the German study focused on the university level. The Portuguese study selected two collective school subjects, aiming at a general comparison between what was happening in the specialized and the generalist subsystems while the German study evaluated corona virus impacts in a broader spectrum of university school subjects. The Portuguese study took a qualitative approach based on the analysis of the results of two focus group interviews and the German study took a quantitative approach based on the application of an online questionnaire.

Some conclusions, however, seem convergent: the pandemic period brought about a need to look at asynchronous work as a good complement to synchronous classes and to look at online classes as a good complement to face-to-face classes. These conclusions take into consideration individual advantages for the students and the learning process, but also collective and sustainability advantages, and they seem to point to permanent curricular changes that might occur in the future in both countries educational systems, if the necessary financial investments can be made by the governments.

The fact that the Portuguese study seems to convey a more optimistic approach to the technologically mediated teaching and learning process in its multiple possibilities than the German study may be explained possibly by two factors: the fact that the Portuguese study focused on two collective school subjects in which music performance is not the main goal, and the fact that at the Basic and Secondary levels in Portugal, many of the technological changes were in fact novelties for which there might not have been enough time yet for a more pondered appreciation. Nevertheless, it is important to underline that the Portuguese teachers in fact pointed out that face-to-face teaching can never be replaced: "No matter how much you try to find digital alternatives nothing can replace classroom face-to-face interaction completely, what you live there and what you feel there" (PEG 10; cf the conclusions of the Portuguese study and footnote nr. 2).

The extraordinary synchronicity and sound quality demands of music making (recalled by some of the participants of the German study) suggest that school subjects involving music instrument and voice performance as main goals might still need further technological advances in order to really benefit, in objective musical terms, from online classes and lessons. However, from the standpoint of subjective interpersonal connection between teacher and students, from the standpoint of differentiated pedagogical practices, and from the standpoint of student autonomous individual work and motivation, asynchronous online tasks and work and synchronous online debates might be good ways through which technology might, paradoxically, make us more human and connected, and more focused on our goals. Indeed, isn't it a fact that Portuguese and German researchers were brought closer together, as the result of the pandemic, precisely through synchronous and asynchronous work, in order to reflect upon common values and goals of music education in our lives?

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Appendix: The experience of music teachers from Portugal and Germany during the Covid-19 pandemic: hard times and creative solutions

Data German Study (Georg Brunner)

Tab. 1: Status of Academic Staff (G1 = Group 1, expert practitioners   ; G2 = Group 2, expert academics)

Status of Academic Staff	Frequency		Percent	
	G1	G2	G1	G2
Professor	5	22	7,9	34,4
Research Associate	12	22	19,0	34,4
Adjunct Teaching Staff	43	10	68,3	15,6
Others	3	10	4,8	15,6

Tab. 2: Types of Teaching

Type of Teaching	Frequency		Percent	
	G1	G2	G1	G2
Lecture	2	4	3,2	6,3
Seminar	13	56	20,6	87,5
Exercise Class / Tutorial	44	7	69,8	10,9

Tab. 3: Distribution to individual Courses
G1

	Frequency	Percent
Individual lessons – Instrument	25	39,7
Individual lessons – singing	19	30,2
Practical instrument for schools	8	12,7
Conducting an ensemble	5	7,9
Facilitating musicmaking in the classroom	3	4,8
Band practice	2	3,2
Choir	1	1,6

G2

	Frequency	Percent
Research in Music Education/Music History	15	23,4
Teaching methodology	42	65,6
Music Theory	4	6,3
Aural Training	2	3,1
New Media	1	1,6

Tab. 4: School Types to which the Teacher Training Program refers

	Frequency	Percent
Primary School (6-12 years)	84	62,7
Secondary School 1 (10-16 years)	89	66,4
Secondary School 2 (17-19 years)	49	36,6
Special Education Schools	24	17,9
Other	19	14,2

Tab. 5: Learning Platforms used

	Frequency		Percent	
	G1	G2	G1	G2
no	50	5	65,1	7,8
yes	13	59	34,9	92,2
Moodle	6	29	9,5	45,3
MS Teams	2	2	3,2	3,1
OLAT	1	1	1,6	1,6
ILIAS	3	16	4,8	25,0
Campusmanagement	6	12	9,5	18,8
Other	5	7	7,9	10,9

Tab. 6: Video Conferencing Systems used

	Frequency		Percent	
	G1	G2	G1	G2
no	8	5	12,7	7,8
yes	55	59	87,3	92,2
Zoom	40	49	63,5	76,6
DFN Conf	1	2	1,6	3,1
BigBlueButton	2	4	3,2	6,3
Skype	23	4	36,5	6,3
MS Teams	2	4	3,2	6,3
Jitsi	1	3	1,6	4,7
Cisco Webex	5	7	7,9	10,9
Other	7	1	11,1	1,6

Tab. 7: Share of Synchronous Teaching

Synchronous Teaching	Frequency		Percent	
	G1	G2	G1	G2
0%	5	4	7,9	6,3
up to 20%	8	2	12,7	3,1
up to 40%	4	7	6,3	10,9
up to 60%	12	5	19,0	7,8
up to 80%	7	14	11,1	21,9
More than 80%	27	31	42,9	48,4

Tab. 8: Use of Feedback (Indication of mean values (M); scale: 1 = does not apply at all, 5 = fully applies; n = size of the sample.

	G1			G2		
	n	M	SD	n	M	SD
The students always received feedback on their submitted assignments.	47	4,36	1,358	62	4,42	1,08
I sent feedback by e-mail.	46	3,11	1,524	54	2,85	1,309
I met with students via video conference to give them feedback.	49	3,78	1,545	61	3,48	1,273

Tab. 9: Teaching during Corona Times (Indication of mean values (M); scale: 1 = never, 5 = always; n = sample size.)

	G1			G2		
	n	M	SD	n	M	SD
I created digital course units for students.	50	2,52	1,632	61	3,57	1,396
I provided students with PowerPoint slides.	44	1,66	1,293	61	3,61	1,269
I included an explanation of the slides via voice-over ...	32	1,75	1,503	47	3,66	1,632
... and I was also visible as the narrator.	41	2,9	1,998	56	3,87	1,696
I used videos that I had not created myself.	41	1,59	0,974	59	2,51	1,251
I provided students with audio files that I had produced myself.	47	2,38	1,526	61	2,1	1,35
I used ready-made audio recordings.	45	2,2	1,375	59	2,93	1,413
I gave the students assignments, tests or quizzes.	45	3,29	1,753	62	3,74	0,991
I used video conferencing for the lecture.	50	3,82	1,561	62	4,32	1,083
I used screen-sharing to visualize content.	48	3,15	1,774	63	4,3	1,057
I provided students with breakout rooms (digital group rooms).	43	1,63	1,291	61	3,34	1,413
I made music together with students via video conference.	22	4,5	0,802	13	3,85	0,689
I sang/played music to students via video conference.	54	4,02	1,421	61	2,16	1,331
Students submitted self-produced videos.	49	2,47	1,515	60	2,03	1,164
Students submitted self-produced audio files.	52	2,62	1,549	62	1,98	1,194

Tab. 10: Evaluation of Online Teaching (Indication of mean values (M); scale: 1 = do not agree at all, 5 = agree completely; n = sample size.)

	G1			G2		
	n	M	SD	n	M	SD
Analogue teaching is clearly better than digital teaching.	61	4,18	1,025	63	3,57	0,946
I have the impression that students work with the learning material more intensively in online teaching.	58	2,53	1,047	64	3,19	0,957
Students' examination results are lower with digital teaching.	60	2,93	0,918	60	2,32	0,813

Tab. 11: Teaching after Corona (Indication of mean values (M); scale: 1 = not at all likely , 5 = very likely; n = sample size.)

	G1			G2		
	n	M	SD	n	M	SD
After Corona, I will return to my accustomed concept of in-person teaching.	63	4,25	1,031	63	3,13	1,085
I will try to integrate some elements of digital teaching into classroom teaching.	60	3,07	1,219	63	4,41	0,816
I will add some in-class units in my course preparation for the summer semester.	53	2,72	1,364	63	3,6	1,185
I will continue using digitalchannels to get in touch with students.	58	3,53	1,188	63	4,3	0,733
I will provide students with feedback in a digital format.	57	2,54	1,364	62	3,58	1,017
I will mix in-person units and asynchronous digital learning phases.	57	2,47	1,311	63	3,84	1,05
I will use a learning platform (such as *ILIAS*, *Moodle*, *Blackboard*, *MS Teams* etc.) and ...	57	2,56	1,547	63	4,35	1,034
... continue to work with video conference tools (such as *Zoom*, *BigBlueButton*, *MS Teams* etc.).	58	2,74	1,319	62	3,84	1,19
I will provide digital learning units for students.	57	2,61	1,32	63	3,75	1,177
I will provide students with PowerPoint slides, ...	53	1,92	1,385	63	4,08	1,348
... to which I will add my explanations via voice-over.	51	1,67	1,125	60	3,13	1,641
I think that I will provide students with educational videos that I have created myself.	55	2,09	1,309	63	2,51	1,501
I will include other (learning) videos in my teaching that I have not produced myself.	56	2,48	1,362	61	3,05	1,371
I will also make audio files available to students that I produced myself ...	57	2,79	1,555	62	2,52	1,4
... that I did not create myself.	56	2,84	1,57	61	3,15	1,537
Students will continue to receive assignments, tests or quizzes from me.	55	2,31	1,477	61	3,82	1,232
I will continue to use video conferences for teaching purposes ...	58	2,53	1,354	62	3,5	1,34
... and screen-sharing.	19	4,0	0,882	49	4,22	0,798
I will ask students to send me self-produced videos ...	55	2,55	1,463	61	2,72	1,318
... as well as audio files.	59	2,66	1,504	62	2,87	1,337