



GENERAL DIDACTIC PRINCIPLES OF UNIVERSITY EDUCATION
IN MUSIC IN THE MIDST OF A PANDEMIC

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Abstract: *This article discusses some of the most important prerequisites for building and organizing the didactic structure of music education at the university level in the midst of a pandemic. The emphasis is on the methodology in designing online learning. The principles of carrying out the preliminary preparation for the transition to the new synchronous¹ and asynchronous² training are described. The basic rules for building and organizing online lectures in the conditions of distance learning are systematized. Models for asynchronous lectures according to already established principles are presented. An analysis of the difficulties and dangers of constant home office work has been performed. The authors of this article share their pedagogical experience regarding the specifics of conducting individual and group music disciplines in the context of distance learning, giving basic recommendations on the structuring of the learning process, which can be used not only in a pandemic situation, but also in the future for more flexible, modern and effective education related to constantly improving technologies.*

Keywords: *pandemic; learning platforms; distance learning; university music education; international experience.*

INTRODUCTION

As lecturers at the State University of Brasilia (Universidade de Brasilia, UnB) in Brazil, the authors of this article would like to share some of their experience in organizing and implementing in detail the didactic process of distance learning in music at the university level.

Higher education in music during a pandemic is closely linked to computer technology, which in turn must be exploited in the most rational way to conduct the pedagogical process in a concentrated, clear, understandable and as far as possible simplified form. The purpose of this strategy is to contribute to saving energy and time for both lecturer and students without interfering with the quality assimilation of the study material.

METHODOLOGY

Research methodology:

The authors of this article have applied the method of observation in the period from March to December 2020 by directly participating in the procedure of reorganization and adaptation of the pedagogical process from face-to-face to distance learning at the Department of Music of the UnB.

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Educational methodology:

The process of distance teaching is carried out by two main methods: synchronous³ and asynchronous⁴.

1. To some extent, synchronous learning can be considered equivalent to face-to-face learning before the pandemic. These are online conferences where the learning process runs in real time for all participants. Here, the online environment offers some advantages. For example, while the lecturer is speaking, he/she can receive questions and other information related to details from students in writing, through chat, that can be explained immediately. Thus, timely feedback does not interrupt the lecturer and contributes to greater comprehensiveness and depth of the learning process in a constant discussion environment running in two planes – through speech and through text. Another advantage is the sharing of information and images from the desktop of any participant in the video conference, which allows for visual clarification of various issues. Most online learning platforms offer an option to record the event, which enables participants to watch the lecture again and better learn the material taught.

It is important to specify that lessons are recorded with the consent of all participants in the video conference and are not allowed to be distributed without the express permission of the lecturer and the students. In this way, copyright law is observed.

2. Asynchronous learning is organized so that it does not take place in real time. It can include pre-recorded lectures or music lessons on a video file, virtual libraries, selected links from YouTube, etc., discussions in forums and chats, file sharing, sheet music, testing and control through the Moodle platform or in writing, receiving answers by e-mail, etc. This type of training can be conducted both online and offline.

RESULTS AND DISCUSSION**Building and organizing lectures in the conditions of remote training**

It is recommended that lectures be subject to several basic rules in their structure:

1. Lecture plan: it should contain no more than five main points, not exceeding 15 minutes. This is in most cases the maximum time to hold students' attention on the same issue on the topic.

2. Going from one point to another should be done with a transition, which can be achieved through a relaxing story, dialogue, short fun discussion, or even through touching on a very distant topic in order to relieve tension and prepare the audience for the next stage of the lecture. Online learning should not turn the academic discipline taught into dry matter, but should emphasize human relationships which distance and technology depersonalize to a certain extent.

3. The lecturer can use a synopsis of keywords (skeleton of the construction) through which to develop the content in the development of his/her lecture. However, it is not recommended to teach by literal reading, especially in theoretical disciplines, as this leads to minimization of personal presence. Due to the specifics of internet communication and the different quality of the internet connection of the participants in the video conference, it is extremely important that the speaker speaks slowly enough and with clear diction.

4. Special attention should be paid by the lecturer to the preliminary acquaintance with the platform through which the lecture will be conducted. It is not permissible for the online environment to be studied in front of the students, and even more so for such a confusing situation to be included in the video of the event.

Organizing an appropriate teaching environment (applies mainly to the lecturer)

For this purpose, it is necessary to consider some unwritten rules that have become necessary in the practice of distance learning:

1. Ensuring sufficiently fast and reliable internet. It is recommended to have a second, backup internet connection, such as from a mobile phone, which, if necessary (in case of shutdown of the main internet), can be connected via the "tethering" function to the computer and thus continue the lecture.

2. Ensuring a soundproof room or room for lectures if possible.

3. Ensuring adequate lighting to illuminate the lecturer's face on both sides – homogeneous, with diffused light. A table lamp with frosted glass can be used or translucent paper can be placed in front of the lamp.

4. It is advisable to have a neutral background or wall in one colour in order to avoid the so-called “competitive information” for the eyes of students. It is good for them to see the lecturer's face and lips, not the distracting background, such as a library full of books. In this case, the eyes themselves go looking for the titles of the books.

5. It is crucial to use a good-quality desktop microphone, not the one built into the computer. This contributes to clear diction when speaking.

6. Paying attention to adequate clothing, which shows respect for the work process. The lecturer should look neat and friendly.

7. When using a piano, the microphone can be placed on a tripod near the piano and the lecturer, as well as on the piano itself with a suitable stand with rubber feet to isolate direct vibrations from the instrument body. Both options have been applied by the authors of this article and have shown very good results.

Individual music lessons are specific, both in face-to-face training from the time before the pandemic and in distance learning.

Individual instrumental distance learning can be organized on the basis of different models. This article describes the structure of the model used by the authors in 2020:

1. Preparation of the video contact: confirmation of the lesson from the previous day, as well as of the repertoire, which will be taught and presented by the student.

2. Three to five minutes before the scheduled online meeting begins, the lecturer sends a written message on one or two channels to make sure the student is ready. The request can be sent via WhatsApp, Viber, Skype, Teams, the chat in Moodle, etc., i.e. the platform on which the class will be held. The lecturer specifies which participant to call if Skype or other VoIP communication is selected, or sends an invitation with a link if the selected online environment requires it. Contact in some online environments can take place in a dedicated “virtual room”, such as Microsoft Teams, Zoom, Moodle – BigBlueButton, etc.

3. Beginning of the contact: it takes place at the appointed time. Check that there is a properly functioning video and audio connection on both sides and, if necessary, adjust the configuration of sound, microphones and/or video.

Start of the class:

There is a short predisposing and relaxing conversation between lecturer and student. The lecturer must establish what is the health and mental state of the student, together with all other objective and subjective conditions for the course. When readiness is established, the specific activities are started. It is recommended to work in a **fragmented** and **concentrated** way, especially if the material is new and in the initial phase of mastering. Here it should be clarified that with distance learning mental fatigue occurs faster, and thus energy and time should be saved from the very beginning of the lesson.

Accompaniment:

Accompanists of the Music Department of the UnB prepare accompanying recordings for solo instruments according to the lists of works provided by the lecturer of the respective subject, which he/she has determined for the upcoming semester. In this way, students are given the opportunity to play with piano accompaniment at home. The same accompaniments can be used by them to record their recitals at the end of the semester.

Preparation of the necessary conditions for asynchronous music lessons:

1. Procurement of the necessary software for this purpose:

The most commonly used programs for making videos are well known to most users. They include OBS Studio, Piano 10, Wondershare Filmora 9, Wondershare UniConverter, Cool Edit Pro 2.1, Audacity, Sibelius, Encore and Acrobat Reader DC.

2. Providing the necessary technical means:

Using a quality HD video camera, a microphone with a wide frequency range and high quality, a relatively powerful computer with a sufficient amount of memory, adequate lighting and soundproof room with good acoustics.

3. Preparation:

Allocating the necessary time for preparation and basic study of software, which would become a prerequisite for a good investment for the time after the pandemic, when technology will certainly continue to enter more and more, occupying a central place in the pedagogical process in higher music education.

Organizing a video recording lesson – asynchronous teaching method:

It is recommended that the video lesson begin with an initial text in combination with the logo of the institution, in which case the authors present the State University of Brasilia (UnB) with the corresponding official logo. What is written are the course, the work to be taught and the name of the lecturer, followed by the names of the department, the institute (of the Arts) and the university at the bottom. Of course, each higher education institution can adopt its own arrangement for the starting frames of asynchronous video lessons.

Along with the introductory text, a part of the work to be studied or certain music can be set to sound. This will serve as a leitmotif of the academic discipline. Here the lecturer can develop his/her imagination.



In this case, we have a recording of an asynchronous lesson in chamber string orchestra with H. Purcell's *Abdelazer* suite⁵, second part – rondo. Immediately after the introductory text comes the performance of the so-called “guide track”⁶, i.e. the part of the first violin is recorded on video with the accompaniment of a harpsichord, which will serve as a basis for students to adapt to play together with the lecturer and to unify their performance in terms of style, articulations, bows, intonation and phrase. Subsequently, together with this “guide track”, each student records his/her part on audio and video with a headset in his/her ear, and sends his/her recording for mixing and performing the final video compilation. At first glance, the process is complicated, but the young musicians are doing great and the end result shows that they are improving quite fast in terms of making the details. This is one of the benefits of constant recording activity as it develops self-observation, self-analysis, concentration and critical thinking. Finally, there is the increase of the overall criterion in terms of musical interpretation and professionalism in students.



Above is a shot from the performance of the so-called “guide track” – the part of the first violin with harpsichord accompaniment.



Here is a shot from the real asynchronous lesson with a demonstration of the specific fingers, articulations, phrasing and treatment of hemiolas in the part, as well as other features in the structure of the musical rondo form.

This video is built in two planes: on the one side is the lecturer who clearly shows the problematic phrases and verbally explains the details, and on the other side is the musical score with the predefined designations.

The following screenshot is an example of an asynchronous class on oboe with the theme of reed making⁷.



A three-layer structure is observed here. The video, which lasts almost 27 minutes, is divided into three parts, i.e. three “windows”: theoretical (lecture), practical, and graphic – a diagram with an American reed with a long field type “W”, calculated and constructed by the author according to the principles of the golden section – $1 / 1,618$.

What follows is a frame from an asynchronous class on interpreting the *Fantasia Sul America*⁸ dodecaphonic solo piece for oboe by the famous Brazilian composer Claudio Santoro.



In this example, a simplified two-dimensional didactic model is observed, based on a performance with an exposition of the musical notation. The video aims to serve as an example of phrasing to students according to the stylistic features of dodecaphony, serialism and atonalism.

Next comes a frame from an asynchronous class on “Musical Language and Musical Structuring – 4”⁹ with the theme “Secondary Dominants”¹⁰. The following example considers the principle of constructing a sequence of secondary dominants in different inversions.

In this case, the video is structured in three windows, and the study material is taught in a three-dimensional model, which can be converted into a four-dimensional one. The lecturer speaks, performs cadences on the piano, and the keyboard is clearly presented in action. The music text is displayed as an image on the right, and new music examples are often displayed during the class with a music notation software, sometimes in a new fourth window.

A brief analysis of the benefits and disadvantages of distance learning over the past year in the midst of a pandemic:

– Regarding the load when working with computers and other electronic devices:

In the pandemic situation, there is an escalation of bureaucratic requirements arising from the need to register all administrative and pedagogical activities in electronic form. This type of continuous work with a computer requires great concentration and mental strain, which leads to permanent mental fatigue. It is recommended that lecturers and students take periodic breaks between classes to recover from the radiation on the screen of electronic devices.

– **Regarding the health condition when working from a “home office”:**

In general, the observations are for deterioration of vision, acquisition of spinal deformities, plexitis, overweight, nervousness, irritability, headache and chronic fatigue. Recommended: periodic breaks, exercise, gymnastics, frequent ventilation, walking, healthy eating and adequate sleep.

– **Regarding the quality of the absorbed material:**

In the past 2020, the students studying at the Music Department of the State University of Brasilia achieved more than expected in terms of detailed study and mastery of the study material. Online recitals, workshops and video recordings were broadcast to both students and many lecturers.

– **Regarding the amount of absorbed material:**

In the first place, lecturers observed the norms for protection of the physical and mental health of both parties in the pedagogical process. For this reason, in some disciplines it was necessary to reduce the amount of material studied.

– **Regarding the social environment:**

The sudden isolation limited the live contact needed by both students and lecturers, disrupting the already established pre-pandemic musical and artistic social environment. To compensate this, the number and duration of the meetings of the Academic Council, the Administrative Council, as well as of the forums and videoconferencing events with the participation of students were increased.

CONCLUSION

For the effective functioning of distance learning in music, it is necessary to pay attention to the development of self-control of students. To this end, it is important to build high standards, critical thinking and self-discipline in young musicians.

It is extremely important to apply self-didactics based on pedagogical training, especially for first and second year students, in aspects such as posture, sound extraction and isometry of the phrase¹¹ – components that are difficult for the lecturer to control from a distance. This fully applies to the field of reed making¹² in oboe and bassoon. It should be noted here that self-didactics is closely dependent on the ability of students to perform correct and uncompromising self-analysis.

The main conclusion is the statement that the new distance higher education in music should take place in symbiosis between the pedagogical activity of the lecturer and the self-didactics applied by the students themselves. This relationship leads to additional motivation for creative development, as both parties are committed to define and impose the most rational pedagogical algorithm for effective implementation of the semester plan.

The application of the basic pedagogical principles in music education at the university level and their adaptation to the technologies for work in an online environment, together with the experience gained from the previous school year in a pandemic, fills the authors of this article with optimism about the expectations of the Music Department. The State University of Brasilia is expected to successfully address the challenges posed by the specifics of distance learning. The authors, who are active lecturers and directly involved in administrative and organizational activities, sincerely hope that the graduates, who are under the influence of the “new reality”, will not differ in quality and depth of knowledge from those who graduated before SARS-CoV-2.

NOTES

¹ Online learning in real time of the lesson.

² Pre-recorded lectures, homework, etc. The learning process does not coincide with the real time of the lesson

³ <https://www.online-learning.bg/sinhronna-asinhronna-online-komunikaciya> (visited on March 11, 2021)

⁴ <https://www.sinepe-rs.org.br/noticias/ensino-remoto-como-preparar-aulas-sincronas-e-assincronas> (visited on March 11, 2021)

⁵ Available in <https://youtu.be/vDtvwdbZTJg> (visited on March 11, 2021)

⁶ In the recording industry, it is the so-called “guide track”, on which performers record their parts in a separate line.

⁷ Available in <https://youtu.be/GyFoeDfLvR0> (visited on March 11, 2021)

⁸ Fantasy South America by Claudio Santoro (1919 – 1989), written in 1983. It is presented in three main versions. One version is for wind instruments solo, with certain differences in the musical text, according to the author’s views for each instrument. The second version is for every strings instrument solo, and the third is for a piano with a rich polyphonic texture. The principles of dodecaphony and serialism are used.

⁹ The discipline “Musical Language and Musical Structuring – 4” is practical and theoretical. Includes solfeggio, one-voice, two and three voices dictations, counterpoint, harmony, interpretive analysis and musical analysis (musical forms). The course is conducted two days, two hours a week, a total of 4 hours and contains 60 semester hours, with one lesson lasting 55 minutes.

¹⁰ Available in <https://youtu.be/4xXjulpYJvA> (visited on March 11, 2021)

¹¹ Phrase isometry is a term used in music to define miniature dynamic nuances within a broader dynamic band, commonly referred to p, mp, mf, or f. The numerical method is often used to denote the isometry of a phrase, which implies greater precision and expressiveness in phrasing.

¹² In distance learning, oboe and bassoon teachers do not have the opportunity to adjust the reeds of their students. This is also unacceptable for health safety reasons due to Covid-19. The specific situation requires students to acquire the necessary knowledge and skills as quickly as possible, additionally applying autodidactic in the field of reed making.

BIBLIOGRAPHY

Alves, I. (2020). Educação remota: entre a ilusão e a realidade. *Interfaces Científicas Educação*, Cuiabá: v. 8, n. 3, 348–365. <https://periodicos.set.edu.br/educacao/article/view/9251> (visited on 11 March 2021).

Dias, E., F. C. F. Pinto (2019). Educação e sociedade. Ensaio: Avaliação e Políticas Públicas em Educação, Rio de Janeiro: v. 27, n. 104, 449 – 454, set. <https://doi.org/10.1590/s0104-40362019002701041> (visited on 11 March 2021).

Freire, P. (2002). *Pedagogia da autonomia: saberes necessários à prática educativa*. 25. ed. São Paulo: Paz e Terra.

Maia, B. R., P. C. Dias (2020). Ansiedade, depressão e estresse em estudantes universitários: o impacto da COVID-19. *Estudos de Psicologia* (Campinas), Campinas: v. 37, e200067, https://www.scielo.br/scielo.php?pid=S0103-166X2020000100504&script=sci_arttext (visited on 11 March 2021).

Недялков, Б. (2017). Обоеви стройки, физични принципи, асиметрична стройка. София: Вѣда Словѣна – ЖГ. // **Nedialkov, B. (2017).** *Oboe Reeds, Physical Principles, Asymmetrical Reeds*. Sofia: Veda Slove-na – JG.

Nedialkov, B., F. Pereira (2018). *Harmonia Funcional, Progressão de Acordes, Teoria e Prática*. Brasília-DF: Editora Universidade de Brasília.

Rosa, R. T. N. (2020). Das aulas presenciais às aulas remotas: as abruptas mudanças impulsionadas na docência pela ação do Coronavírus-o COVID-19!. *Rev. Cient. Schola Colégio Militar de Santa Maria*. Santa Maria, Rio Grande do Sul, Brasil: Volume VI, Número 1. [http://www.cmsm.eb.mil.br/images/CMSM/revista_schola_2020/Editorial%20I%202020%20\(Rosane%20Rosa\).pdf](http://www.cmsm.eb.mil.br/images/CMSM/revista_schola_2020/Editorial%20I%202020%20(Rosane%20Rosa).pdf) (visited on 11 March 2021).

A Comissão Futuros da Educação da Unesco apela ao planejamento antecipado contra o aumento das desigualdades após a COVID-19 (2020). Paris: UNESCO. <https://pt.unesco.org/news/comissao-futuros-da-educacao-da-unesco-apela-ao-planejamento-antecipado-o-aumento-das> (visited on 11 March 2021).