Views on distance education visually impaired students receiving professional music education

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Highlights	Abstract
• Accessibilty and sustainability of the distance education model for visually impaired students • Solutions for visually impaired students ins screen-debendent applications • Alternative educational materials • Collaboration among learners, parents, and teachers	In this research, the opinions of visually impaired professional music education students regarding distance education were thoroughly examined. As distance education has become a prevalent model in today's educational landscape, it is crucial to assess its effectiveness and sufficiency for students with special needs. The study focused on a diverse group of visually impaired students enrolled in both undergraduate and graduate programs in music education. Data were collected through semi-structured interviews, which allowed for in-depth exploration of the students' experiences and perspectives. These interviews were then analyzed using content analysis techniques, revealing key themes related to the students' educational experiences. The findings highlighted several significant deficiencies in the distance education model, particularly regarding accessibility. Many students reported difficulties in navigating online platforms and accessing course materials, which hindered their learning experiences. In response to these challenges, the research proposed various suggestions aimed at enhancing the distance education model for visually impaired students. Recommendations included improving the accessibility of online learning environments, integrating assistive technologies, and providing tailored resources that accommodate different learning styles. By implementing these changes, educational institutions can create a more inclusive and supportive environment for visually impaired students pursuing professional music education, ultimately fostering their success and engagement.

1. Introduction

The distance education model, which dates back to the middle of the 19th century, has become the most widespread education model in the world in 2020. Events, such as war, disaster, and epidemic diseases/pandemics that affect society in general may cause long-term negative consequences and interrupt the flow of education. Therefore, when making educational programming after such events, it should be a priority to ensure that students are least affected by the process. The distance education model, which started to be implemented rapidly worldwide and at all levels of education during the COVID-19, has emerged as the most sustainable option in line with the conditions of the period.

"In Turkey, distance education first came to the forefront in 1924. It was raised in a report presented by Dewey, which proposed the coordination and training of teachers across the country through distance education. The issue was revisited in 1939 at the National Education Council. The first private sector-based activity in distance education in Turkey was carried out by FONO, a language institution. With special permission from the Ministry of National Education, the organization established an open education institution in 1953." (Karasoy et al., 22). Distance education applications, which started in the 1950s in Turkey, continued to change and develop in the natural education movement. With the development of modern technology, the strengths and weaknesses of the model in question have changed form over time. The needs and solutions shaped by the necessities of the age continue to move today. "When determining the development periods and stages of distance education in Turkey, common technologies used in distance education processes and significant events affecting the field have been taken into account. Accordingly, it can be said that four periods have been experienced in our country:

I.   Period - Discussion and Proposals: Conceptual (1923-1955),

II.   Period - Correspondence: Mail-Based (1956-1975),

III.   Period - Audiovisual Tools: Radio-Television (1976-1995),

IV.   Period - IT-Based: Internet-Web (1996-…)" (Bozkurt, 2017, p.87).

The distance education model, which we see its first applications through letter teaching, has become more accessible and sustainable over time with the acceleration it has shown from the use of common communication technologies to computer technology, from smart classrooms to mobile technologies. In the distance education process, which has been applied with many methods and techniques since its beginning, teachers and students are in separate physical environments. The distance between these separate physical environments has been significantly reduced in online environments thanks to today's technological availability. In this context, education and training activities are delivered with the support of technological tools. Given the technologies of the 21st century, our age has very advantageous equipment at this point.

The opportunities provided by today's technology have made it easier to continue the education of the art of music from a distance. In the 1970s, the distance education model in music education, which was applied by letter, became simultaneous and practical through web-based audio and video transmission hardware and music software. "In the field of digital music education and training for musicians, there is still a lack of suitable offerings. There are many musicians who seek, and could benefit from, well constructed instructional frameworks in the field of digital music, but to date these opportunities have been very limited." (Ben-Ezzer, 2007) To carry out distance education, students and teachers should have the necessary technological equipment at a minimum level. It is thought that a planned distance education process and a distance education process that have to be started in the event of a sudden onset of war or disaster, where desperation may be on the agenda, do not produce the same results. In such conditions, the student and/or teacher's inability to have the necessary technological equipment can make the process unworkable.

The aim of this study is to determine the views of visually impaired students receiving professional music education on the distance education process. The study seeks to examine how the distance education model is implemented for visually impaired individuals in the context of music education and evaluate its effectiveness. It focuses on assessing the accessibility of technological tools and digital content for visually impaired students, identifying challenges encountered, and how their educational needs are addressed. By doing so, the study aims to reveal the impact of distance education practices on the music education of visually impaired students and identify potential areas for improvement.

In this study, the following questions are addressed regarding visually impaired students:

1. Which model did they follow for their courses during the distance education process (synchronous or asynchronous)?

2. What technological tools did they utilize?

3. What are their opinions regarding the adequacy of the course materials they used?

4. How was the assessment and evaluation conducted?

According to visually impaired students,

5. What are the strengths of the distance education model?

6. What are its weaknesses?

7. What are the views and suggestions of the participating students regarding the distance education model?

2. Literature

Music education is carried out in three basic dimensions: general, amateur and professional education. Although these dimensions have common aspects with each other in the context of educational attainment, they are quite different regarding their purposes and the places/institutions they are given. Professional music education includes the education of individuals who choose the art of music as a profession and aims to bring purposeful behaviors toward the components that make up the art of music, such as music science, vocalization, music theory, music technologies, or the education of the art of music.

Professional music education in Turkey is in primary and secondary education institutions, conservatories and fine arts high schools. In higher education institutions, it is given in conservatories, music departments of fine arts faculties, music departments of art and design faculties, and music teaching departments of education faculties. The aims of professional education programs at the higher education level also differ from each other. For example, while the objective of education faculties is to train music educators, the aim in conservatories is to train artist and composer candidates. The purpose of music departments is to cover the entire field of music, far from a specific structure, such as education faculties and conservatories.

The first examples in Turkey of the use of the distance education model in professional music education appeared in the 1970s. "In the 1970s, the first study based on the idea that the distance education model, which individuals without educational opportunities were using, could also be applied to music education, is the 'Violin Teaching by Letter' methods prepared by Edip Günay and Ali Uçan for the Music Departments of Education Institutes. The attempt to conduct Violin Education, which involves a challenging and lengthy process even with one-on-one instruction, through correspondence in 1975 is noteworthy and deserves attention." (Canbay & Nacakçı, 2011, p.136). Given that these methods have been sent to music departments of educational institutes, not to any place where music education is given, it is an indication that they have a curriculum mission.

With the increasing use of technology, numerous web-based programs, applications, and software specifically designed for the art of music have been developed. This technological surge has transformed musical production processes, making them more accessible and fostering greater creativity among musicians. Computers and the internet now enable artists to perform a multitude of technical and artistic functions that were once considered impossible.

A vast array of software and applications is available, encompassing everything from music production to composition, accompaniment, and improvisation. These tools not only empower users to apply complex music theories and techniques but also streamline the entire musical process, allowing for more efficient workflows. Digital instruments, virtual studios, and advanced sound processing tools contribute to a more dynamic and interactive music production environment, granting artists enhanced freedom and flexibility in their creative endeavors.

Moreover, the integration of technology into music education has opened new avenues for learning and collaboration. Online platforms facilitate real-time feedback and remote collaboration, enabling students

and educators to connect globally. As a result, advancements in music software driven by technology have ushered in profound changes and innovations across various fields, from music education to professional production, ultimately redefining how music is created, shared, and experienced in the modern world. This evolution continues to inspire a new generation of musicians, equipping them with the tools to explore their artistic visions like never before.Studies in the literature show that the distance education model leads to successful results in music education. In the study conducted by Karahan in 2016, it was aimed to determine the success in of the piano lessons taught with face-to-face and traditional methods and the success of the remote piano lessons. At the end of the applied experimental process, it was revealed that there was no significant difference between the success levels of both groups. In line with the results of this study, it was seen that the piano lessons taught with the distance education model had the same effect on student success as the face-to-face education model.

Although the distance education model has many positive aspects and produces successful results in music education, it also has disadvantages. The reasons for these negativities can be grouped under two headings: planning and implementation of the process. For a qualified distance education system, the basic components of the model, which are distance education policy, infrastructure opportunities, access situations, usage qualifications, education-training processes, expert human resources, support services, information security and ethical dimensions, should be considered (Can, 2020).

Until the onset of the global epidemic, the distance education model in Turkey was ignored, especially in music education. Thus, the first reflexes of the people and institutions that provide music education and professional music education students regarding distance education, which has been started to be implemented rapidly in educational institutions, have been negative. The results of the study conducted by Balaman and Tiryaki (2021) were that teachers' approaches to distance education differed according to the branch. In this context, it was revealed that while teachers of theoretical courses generally find the method sufficient in teaching, teachers of applied courses find it insufficient.

"Because unknown facts and situations can cause anxiety or because of the trouble of learning new things, known things may seem more advantageous. However, with effort and time, adaptation and development can be achieved" (Umuzdaş & Baş, 2020, p. 219). Lack of experience with the distance education model is one of the most significant reasons for negative attitudes. This negative attitude has not been able to resist in line with the priority of health and has transformed itself over time. In direct proportion to the increase in the experiences of both the trainers and the students, the level of acceptance toward the distance education model has increased daily. The results of the study conducted by Aksoy et al. (2020) revealed that 77.2% of the participants had no idea about distance education before the COVID-19, and this rate dropped to 21% with the COVID-19. The increase in the level of acceptance brings with it confidence in the education model. This situation has increased the use of more than one method and technique, the diversity and frequency of use of technological equipment and web-based applications, to produce fast and practical solutions in every situation experienced.

Another reason for the concerns of educators who provide professional music education in the context of distance education is the way they benefit from technology in music education. The use of technology in lessons is generally limited to the use of audio and video recordings. It has emerged in the process that although teachers have knowledge about the equipment that can be used in asynchronous applications in the distance education model, they are not sufficiently equipped with synchronous applications. For example, video conferencing applications, the most important tools of synchronous lessons, are programs that institutions or educators do not need in face-to-face education. In addition, widely used video conferencing programs create difficulties in ensuring the synchronous transmission of sound and rhythm, which is the most important element of the art of music. Hence, finding a suitable video conference program for music lessons in the distance education process, which needs to be adapted quickly, has been one of the topics that educators have difficulty with.

"Teachers' preparations for the use of distance education in extraordinary situations, such as pandemics, are limited. In addition, instrument lessons held under pandemic conditions may be interrupted. In addition to the problems with internet speed and the use of necessary programs, the lack of contact with

the students is an important problem according to the teachers. In terms of the continuity of instrument lessons, lesson efficiency and student motivation, it will be beneficial for teachers to be familiar with various online learning tools, to follow current technologies and to have a high ability to adapt to situations encountered" (Ayaz Töral & Albuz, 2021, p. 29).

Distance education skills, which have been included rapidly among the educational experiences and reflexes, have not only developed and changed positive. The traditionalist structure of the Turkish education system and the problems with the internet infrastructure of the institutions may cause many disruptions. "The most important element in distance education is the communication infrastructure. Problems in communication infrastructure affect education. For this reason, the technological infrastructure should be constantly improved, the interruptions in the connection should be eliminated, and the internet speed should be increased" (Arat & Bakan, 2014, p.373). Due to the rapid start of the process, unfortunately, the necessary internet infrastructure in every city and rural area could not be provided. This situation has led to a significant difference between the ratio of students in city centers having the necessary equipment to be included in the distance education process and the ratio of students in rural areas. The quarantine imposed due to COVID-19 has also prevented students from going to central places where they can access the technological tools and equipment they need. Students cannot participate in the education process equally due to the geographies they live in and socio-economic differences.

Another problem that arises in the process is the developmental characteristics of students. Educational channels and technological tools and equipment to be used during distance education were designed by taking the students with normal development as criteria, and students with different development were considered in the background. In this context, since every method used, whether synchronous or asynchronous, appeals to the senses of sight and hearing, students who are particularly affected by the inadequacy of these senses have a very disadvantageous position. The study conducted by Okur and Demir in 2019 aimed to identify the challenges faced by visually impaired learners in their educational experiences and to develop solutions for the field of open and distance learning. The findings indicated visually impaired students struggle with symbol-based courses in open/distance education applications. While the development of information and communication technologies is presented as a success in every field, it has been noted that these students do not achieve success in the relevant courses (Okur & Demir, 2019).

It is assumed that the distance education model will provide efficient results in all age groups and education programs. The principle of equal opportunity in education requires that the process to be carried out in the most efficient way for students in all developmental groups. The distance education model for individuals in need of special education has different needs compared to individuals with normal development. These needs also vary according to disability groups.

In the study conducted by Yoltay Bilici et al., the parents of affected by visual impairments were interviewed, and the results revealed that there were significant deficiencies in distance education practices. "The families participating in the study reported that during the training sessions conducted by teachers, individuals affected by visual impairments either did not receive the individual education they needed or the training provided was not tailored to their specific needs. It was observed that the digital content used in the education of individuals with visual impairments was not suitable for those who are partially sighted or blind" (Yoltay Bilici et al., 2022, p. 115). Providing an efficient distance education process for the visually impaired requires careful attention to accessibility and usability. "When we consider accessibility in terms of the educational field, the sharing of readings online, the publication of notes on the Internet, and the constant need for Internet access for research can become problematic for students with special needs if websites are not accessible." (Aksoy & Şengel, 2018, p. 565). Especially asynchronous distance education creates different needs; audio guides/descriptions, accessibility in document formats, providing technical support, providing consultant/assistant support when necessary, being in constant cooperation and having a live/online support option will increase the accessibility of the process. "The training of the visual impaired involves different teaching methods and teaching means

when compared to those used for people without such problems" (Liakou & Manousou., 2015, p. 74, as cited in Hiourea, 1998).

As of March 2020, Turkey has used distance education applications unprepared and without infrastructure. This situation has revealed new experiences, needs, and positive and negative aspects in all levels and education programs. While it has led to positive gains regarding equality of opportunity and time-space flexibility in education, it has also brought unforeseen problems. This research aims to identify the positive and negative situations experienced by vocational music education students affected by visual impairment during the distance education process, in line with student opinions. In this context, the aim of the research is to gain insight into the distance education process experienced by visually impaired students in vocational music education.

3. Methodology

3.1. Research Model/Design

In this research, case study design, one of the qualitative research techniques, was used. "Case study research is a qualitative approach in which the researcher gathers in-depth and detailed information about real life, a current circumscribed situation, or multiple circumscribed situations in a given time, in which a situation description or situation themes are revealed" (Creswell, 2013, p. 97). This approach was chosen because it allows for a comprehensive understanding of the unique challenges faced by visually impaired learners in their educational experiences, providing insights that broader quantitative methods might overlook.

3.2. Data Collecting Tools

Semi-structured interview forms were used as data collection tools in this research. While preparing the interview form questions, the questions in the question pool were presented to the opinions of three music education experts. Interviews were conducted using telephone and online communication tools during COVID- 19.

3.3. Study Group

The study group of this research consisted of seven visually impaired students who had at least undergraduate education in music departments in Turkey and, 80% of visually impaired music department students studying in Turkey were reached, and students who wanted to contribute voluntarily to this study were included in the study group. The study group for the research was reached through the communication network established by the "barrier-free music score" initiative created by the Association for the Visually Impaired in Education. The administrators of this communication network stated that the contact information for all visually impaired students receiving undergraduate and graduate music education in Turkey is included within this network.

3.4. Data Analysis

The data obtained from the interviews were examined using content analysis. Content analysis consists of four stages. To find themes, the codes are first brought together, examined, and common aspects are identified and the thematic coding process is carried out (Yıldırım & Şimşek, 2013). Codes were created to obtain sections from each sub-problem and to make symbolic abbreviations, and themes that could explain the data in general terms were created by bringing together the related ones among the codes. After these two stages, the data were organized according to codes and themes.

3.5. Research Procedures

Ethics Committee Approval was obtained from Kahramanmaraş Sütçü İmam University to conduct this research. Ethical approval is provided in the annexes.

After obtaining research permission, visually impaired students receiving undergraduate and graduate music education across Turkey were identified through their communication networks (social media groups, telephone networks, and Non-Governmental Organizations) as potential volunteers for the study.

Each student was individually contacted, and the purpose and content of the study were explained, with appointments scheduled for interviews. The interviews were conducted separately with each participant via telephone. The interviews were recorded with the participants' consent and later transcribed.

To implement the research, a semi-structured interview format was utilized, allowing for flexibility in responses while ensuring that all relevant topics were covered. Questions were designed to explore the students' experiences and perceptions regarding distance education. Each interview lasted approximately 30 to 45 minutes, providing ample time for participants to express their thoughts and feelings. This comprehensive approach aimed to ensure that the findings accurately reflected the perspectives of visually impaired music education students.

4. Findings and Discussions

Findings regarding the program in which the participants studied are given in Table, contains information about which university and department the participants were studying and, which level program he/she was enrolled in (undergraduate/graduate).

Table 1.

University, department, level.

Universities	Department	Level
Gaziantep University Turkish Music State Conservatory	Turkish Classical Music Basic Sciences	Undergraduate
İstanbul Technical University	Musicology and music theory	Graduate
Gazi University Institute Of Education Sciences	Music Education	Graduate
Marmara University Faculty Of Education	Music Education	Undergraduate
Kahramanmaraş Sütçü İmam University Fine Arts Faculty	Music	Undergraduate
Van 100. Yıl University Faculty Of Education	Music Education	Undergraduate
Erciyes University Fine Arts Faculty	Musicology	Undergraduate

As shown in Table 1, five of the participants studied in the undergraduate program and two in the graduate program. There a were one participant studying in the Turkish Music department, two students studying in the Musicology Departments, one studying in Music Department and, three participants studying in the music education departments.

Table 2 shows how the courses taken by the students during the distance education process are applied. These methods were themed as synchronous, and asynchronous.

Table 2.

Distance education methods preferred by schools

Participants	Synchronous	Asynchronous
P1	x	x
P2	x	
P3	x	
P4	x	
P5	x	
P6	x	
P7	x	

Except for P1, all participants stated that the courses were taught synchronously during the distance education process. P1 stated that Turkish Language and English courses were conducted asynchronously. He stated that the English lesson was taught through audio recordings, so he/she did not have difficulty, but only PDF was used in the Turkish Language lesson, so he/she needed parental support.

In addition to Table 2, where the methods preferred by the schools are given, it was observed that there were differences in the course follow-up methods of the participants in the interviews. He stated that all of the P4 lessons were conducted synchronously, but he did not conduct the lessons, in this way, but by listening to the post-lesson videos asynchronously. This box was marked in the table because the lessons

were carried out synchronously by the school. He stated that all of the P5 lessons were taught synchronously, but toward the end of the semester, he had to follow the lessons asynchronously due to his own health problems. P6 stated that the institution's own live lesson system, which was among the synchronous tools preferred by the school, was not efficient, so it had to follow these lessons asynchronously afterwards.

Information on what support and equipment the participant students have to follow the lessons is given in Table 3.

Table 3.

Equipment used

Participants	Computer	Cellphone	Tablet
P1	x	x	
P2	x		
P3	x		
P4	x	x	
P5		x	x
P6		x	
P7	x		

Except for P5 and P6, it was seen that the other participants used only computers. Two participants used the phone together with the computer. One participant could follow the lessons only using a phone, and another participant could follow the lessons using a phone and tablet. All of the participants stated that they could use these devices independently.

Information on the adequacy level of the documents used in the courses and prepared by the academician who leads the course is given in Table 4. The proficiency level of the documents is interpreted in the context of the student's level of ability to use the documents independently.

Table 4.

Competence level of course documents

Participants	Sufficient	Insufficient	Absent
P1		x	
P2			x
P3	x		
P4	x		
P5	x		
P6		x	
P7		x	

P1 stated that he/she could not use the course documents without parental support. P2 stated that since he/she was studying at the graduate level, he/she prepared the documents, not the professors therefore, the "none" option was selected. P7 stated that slides were uploaded as course documents, but he/she could not benefit from them. Participants who found the documents sufficient were those who could read large print. All participants declared that their special needs were not considered in the prepared materials.

During the measurement and evaluation process, it was questioned to what extent the special needs of the participating students were taken into consideration, and the findings are given in Table 5.

Table 5.

Assessment and evaluation

Participants	Individual Arrangements	General Arrangements
P1	x	
P2	x	
P3	x	
P4	x	x
P5	x	x
P6		x
P7		x

P1 stated that his/her teachers made positive discrimination against him, that he was not responsible for written exams with other students, especially in theoretical courses, and that he/she took the exams by making videos. P3 stated that all his exams were done in homework format, so he/she did not need a specific application. P4 stated that only in the musical hearing course, where an individual application was made for him/her, he took the exam with the same evaluation method as the class in other courses. P5 stated that an individual arrangement was made for the exams of applied field courses, and that the exams of theoretical courses were written. Thus, he/she stated that he/she had a hard time taking the exams of theoretical courses. P6 stated that he received support from his friends for the exams of theoretical courses, and stated that the instructor gave him/her a separate exam in only one course in the field courses.

The strengths of the distance education process for students affected by visual impairment are given in Table 6.

Table 6.

Strengths of the distance education model

Participants	Spatial Flexibility	Temporal Flexibility	Social Acceptance	Absent
P1	x			
P2				x
P3		x		
P4		x		
P5			x	
P6				x
P7	X	x		

There were two participants who stated that distance education had no strengths. One participant stated that it was ridiculous for him to get too close to the book to read in class and, that the level of social acceptance for the class was higher because he did not feel ridiculed in distance education because he thought he was being ridiculed. Other participants mentioned that time and place flexibility were the strengths of distance education.

Weaknesses of the distance education process for students affected by visual impairment are given in Table 7.

Table 7.

Weakness of the distance education model

Participants	Low Productivity	Technical Deficiency	Teacher's technological Incompetence
P1	x		
P2		x	
P3		x	
P4		x	
P5		x	
P6		x	x
P7		x	

Most participants stated that the methods and mediators used in the distance education model had technical inadequacies, in the musical sense. Technical inadequacies such as the lack of sound synchronization in the online meeting platforms used, the sound not being transmitted to the other party in a qualified manner, and the impossibility of singing and playing simultaneously, made distance education weak reading music education. One participant stated that the lack of technological knowledge of the course instructors caused negativity, while another participant stated that the process model was completely inefficient.

Participating students' opinions and suggestions regarding distance education are given below respectively:

P1: "Lesson duration may be increased. What is written in the program during the lesson, as many lessons are taught. Instructors should be able to extend the lesson if necessary. They compress the course content, so it would be better if the duration were longer. The student must use technological tools and equipment well. It would also be good to have tools that can convert written documents into audio content."

P2: "We need to be provided with regular help. It would be very good for us to have programs that make voice quotes and write voice text and make them accessible."

P3: "Technical infrastructure problems must be resolved. It should not be limited to the university system only, alternative programs should be used."

P4: "It would be great if there were software that reads notes on the computer and converts them into audio content."

P5: "In the distance education system, I should be able to set the size I want on the screen. I should be able to bolt the texts. My special situation should be defined on my site and the system should automatically adjust the exam period for me. When there is a problem in a lesson or exam, we should be able to reach the distance education center quickly. Uzem (distance education center) solves the problems very late. Systemic problems should be resolved very quickly."

P6: "Teachers should be more moderate and understanding. Their attitude toward us should be constructive. The problems of the school's distance education system must be resolved, it must be compatible with accessibility programs. These systems and interfaces must be accessible to everyone."

P7: "Since everything is shaped by the natural functioning of the work in the process, the only thing I can say is the digital notation archive. If this were the case, it would be very comfortable for us. We could take the notes from the Braille printer and study comfortably. Apart from that, everything was shaped in the process by its own nature. For example, there is a Turkish folk music ensemble lesson. The teacher reflects the note on the screen; everyone sees it, but I cannot see it. I need to dictate first. This is very difficult for me. We have homework, we have to read articles, it is difficult for me here. You need to be a guide. I teach Braille sheet music at university. We translated nearly 90 works. It will be very useful to those after me. Writing Braille notes is a very long task. One note can occupy seven squares. Thus, it slows us down a lot in skills, such as sight-reading, solfeggio, and playing. The teacher teaches the Reaper program in one lesson. Zomda opens the program and explains what to use and how. Naturally, I didn't understand. I learned that this program was accessible from a friend of mine, and a visually impaired friend had a lecture on Udemy explaining that this program could be used only using the keyboard. Approximately 120 videos. I solved the program by following these lessons from Udemy. I learned that it is compatible with screen reader programs."

5. Conclusion and Suggestions

Education is a right and it should be ensured that it is equally accessible and sustainable for every individual within the principle of equal opportunity. In this context, it is significant that the distance education model, which has been forced to transition due to the COVID- 19, is accessible to students in all fields of education and at all development levels.

The distance education model, which already has weaknesses in music education, poses an additional challenge for visually impaired professional music education students. The distance education process, which depends on screens, is far from being accessible for individuals who cannot see the screen or have low vision.

The findings obtained in this study suggest that students affected by visually impaired are ignored within the distance education model. It is understood that institutions and individuals make their plans according to normally developing students. There are access problems that affect the efficiency of the process for students with special needs. It has been concluded that access to course contents and materials is possible in several ways, such as with the support of parents, friends, and large print. In the context of this result, it can be interpreted that the student depends on another in the education process.

Various technological tools and approaches are required for the distance education model to be effective for visually impaired students. Screen readers, speech recognition – dictation software, Braille printing machines, audio document contents and interactive training materials that can work with voice or touch controls will make the training model accessible. In the literature, it is possible to find studies addressing these needs and proposed solutions. In the study conducted in 2021 by Battistin et al., the Distance Support Project established by the Robert Hollman Foundation to support the distance education processes of visually impaired students was presentedIn this project, e-platforms offering online work and communication opportunities to support the development of visually impaired students have been developed, and online alternatives providing psychological, educational, and rehabilitative treatment have been introduced. In the project, it was observed that based on the clinical records of visually impaired students, suitable simple materials and e-platforms were created, and information and training on the use of these materials were provided to families and professionals through video conferencing systems. It has been demonstrated that the model, which was implemented in collaboration with parents and professionals, was tested over a period of 5 months and yielded positive results. Based on the results of this research in addition to technological support, programs prepared according to the student's disability level and cooperation with individuals who see education as support and guidance will also help improve the process.

As a result of all the data analysis, distance education carried out during COVID- 19 has become very difficult for visually impaired professionally music education students. Providing an appropriate environment and support for students with special needs throughout the process and customizing educational materials is an issue that should be underlined.

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