DISTANCE EDUCATION - A NEW PERSPECTIVE FOR UNIVERSITIES WITH ARTISTIC PROFILE

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Abstract

In this article, we intend to conduct an analysis of the evolution of distance learning in the Gheorghe Dima Music Academy of Cluj-Napoca, starting from the individual and societal benefits offered by this type of education. Distance learning system has dressed various forms, which gradually developed by integrating information, software and communication including multi-media technologies. Music teaching at university level adopted custom solutions for distance learning, in the form of blending learning. In this study we aim to study this type of distance learning for music education by detailing three organizational levels: the evolution of this form of education in relation to ICT development, distinct elements that this form of education has brought in music education and the different educational technologies that have been implemented in the Gheorghe Dima Music Academy of Cluj-Napoca. We found that activities related to distance learning programs have led teachers and students to continue to adapt to changes in IT. The benefits are not only economic but also qualitative: availability and diversity of programs, the possibility to learn at one's own pace and to progress in parallel with other activities. The number of students who applied for this type of distance learning programs is constant allowing universities to manage to self finance these programs. Through our distance education systems, AMGD is able to provide other training courses and students can call for support and consult existing content platform in use for distance education.

Key words: *higher education, blending learning, music, platform, on-line*

1. INTRODUCTION

Distance learning is a method of learning and development of knowledge via PC that has seen a large development in the arts. This was influenced mostly by the advancement of newer technology, web-based processes and open new opportunities for learning via computer networks and Internet, intranet / extranet, the multimedia, which allows transmission of text, image, animation, streaming video and audio. E-learning is seen in various programs called Integrated Education: CBT (Computer-Based Training), IBT (Internet-Based Training) and WBT (Web Based Training). In these systems, the Internet is considered an electronic market, where there are programs that involve the transmission of media training, new opportunities to exploit (Cohen 2001). New technologies are considered to be a

vital engine for development of the organizations (Geoffrion et al.2001) including universities, knowing today's society digitization of all areas of human activity (e-business era, e-commerce, e-business project, e-business applications, e-business software), a fact which allowed the emergence of new business opportunities in the educational field.

The evolution of e-learning has led the transition from computer-based programs (Based Learning / Training) which involve the transfer of knowledge through computers to the newer systems developed to allow computer-supported collaborative learning (CSCL). Thus, universities have developed programs that encourage joint development of knowledge through various connectivity options (Internet, intranet, extranet), sharing of knowledge (which can then be distributed through various multimedia), and last but not at least the changing role professor and replacing it with the facilitator of knowledge.

It is considered that the pioneers who allowed the e-learning are those who created and developed online courses early, such as those developed by Murray Turoff and Starr Roxanne Hiltz, in 1970 and 1980. At the New Jersey Institute of Technology (Hiltz, 1990), University of Guelph in Canada and the British Open University (Mason et al., 1989), University of British Columbia (Bates, 2005), teachers have always used online discussion between students.

Also there were a number of practitioners, such as: Graziadei (Graziadei et al.1993), Harasim (Harasim et al, 1995) which emphasized the use of learning networks for knowledge construction. They described the possibility of delivery by electronic mail of online courses, along with tutorials and project evaluation. Evolution of e-learning was influenced by ICT development in three distinct phases in Table 1 [36-40]:

Tabel 1: Steps of the evolution of Web

Steps	Features elements	User role
Web 1.0	Using the Internet for publishing and distribution of information (books, news, music, etc.) by dragging them to digital format;	Consumer
Web 2.0	Trend to shift the World Wide Web technology and web design that aims to enhance creativity and ensure safe information exchange and better functionality.	Creator
Web 3.0	Requires an enormous data integration and use in an innovative way, by using the Internet as a data platform, fast and accessible for every day.	Integrator

1.1. Communication technologies used in E-learning

In universities, e-learning is considered to be an educational method through which an individualized knowledge exchange between the mentor (professor) and the apprentice (student) is achieved by the on-line feedbacks and interactions. Later on, this concept was named e-education which include e-teaching and e-learning. E-learning developed firstly in universities from United States, United Kingdom and Canada and spread over rapidly as it supposed to go over the geographical and historical borders.

It was particularly welcomed by universities because of its capacity to adapt to individual issues, to respond to personal challenges of students and to use in a highly efficient manner a problem-solving

process. E-learning can be used successfully in every dynamic organization in a variety of domains: acquiring high qualifications, specializations or retraining courses.

The university of the future is intimately linked to the development of e-learning and for that both an acitve support from the university staff to professors and an investment in newer technologies that allow to develop such activities (Cambre and Hawkes, 2001). Kaye (1989) in his work, suggested four predictive markers for successful computer-based activities using e-learning: 1). Knowledge of the technology used: how to stock, save, access, manipulate and send the data and; 2). Use of computer-mediated communications; 3). Establish a hierarchy of rules and values of the working group, scheduling a plan of activities and monitor the progress; 4). Learning is successful if a part of the process is dedicated to individual work and if it is not entirely based on the on-line access.

It is considered that the most demanding universities will be those in whom an important part is invested in these new multi-media technologies because they will able to offer a variety of opportunities of learning systems including e-learning and will adapt easily to societal and environmental changes (Roswik, 2010; Laurillard, 2010).

Investing in these technologies means not only the possibility to acquire them but also the possibility to develop internally personalized technologies that could handle structured materials and made possible to stock and retrieve the information in a optimal way for e-learning (by subject, by type, by educational paradigm, by use, by impulses to learn), by developing software for different purposes (design, development, evaluation, educational innovation) (Hinostroza et al, 2000).

Hence, the e-learning should not be regarded as an other system trying to mimic what is happening in classrooms but as an "alternative" to produce an interactive environment which facilitate the learning process (through the development of an appropriate context, by transmitting the knowledge through a spiral by using modular, flexible programs) (Spektor-Levy et al, 2006).

An e-learning coordinator will use the potential offered by the new technologies introducing and using those media that are the most appropriate to the need of the students and their object of study. (Spektor-Levy et al, 2006; Bates, 2005; Friedman et al., 2003; Cambre, 2001; Hinostroza et al, 2000).

ICT was rapidly included in the music education because faculty staff was very receptive to adopt it and to include it in the curriculum aiming both to stimulate a creative part of music process by producing electronic sonorities (electronic music) and to facilitate the music teaching and education. Research has been done by the synergic action of musicians, technicians, and engineers working as a unique team to produce and to implement different educational supports (software, multi-media applications, and educational platforms). This has been done in order to satisfy the requirements for: on-line materials for different music domain, theoretical or applicative domains, and training programs to achieve the required artistic competency for the bachelor arts certificate.

1.2. Challenges resulting from e-learning

Many opinion leaders (Goodwin and all, 1993, Hirschbuhl, 1994 şi Wolcott, 1997) advocate the use of e-learning to some extent in all university. However, researchers outline a new phenomenon occurred in parallel with the implementation of the e-learning process: the fear of the faculty staff and professors who do not wish to assume a part of risk (Hirschbuhl, 1994), the discomfort regarding a perceived lack of ability of teaching by using new methods and technology (Clay et al., 1995, Munson, Poage, Conners şi Evavold, 1994). New things and changes provoke anxiety and fear to face any possible expected or unexpected difficulty induced by using ICT, as highlighted by Rutherford and Grana in 1995.

Economic pressures related to a relative high cost for users and buyers of the new technologies' platforms as well as political strategies that not include the e-learning in the agenda might impede the implementation. E-learning combine the multi-media methods and internet and offer a variety of solution in order to increase the level of knowledge and the level of future performance (Rosenberg 2001).

Faculty staff and providers of IT have a major role as they should provide support to professors and to facilitate the context needed to develop their abilities for e-teaching and e-learning (Lankshear și Snyder, 2000).

Following the evolution of the teaching / learning specific distance learning can delineate several distinct stages:

- Predominant use some form of asynchronous forms of communication, i.e. a text-based approach that is still frequently encountered (Feenberg 1999). This view was shared by Palloff and Pratt (2001), who reported that student evaluations of the e-learning systems have demonstrated their ability to engage with their peers on various topics of discussion asynchronously. Layton (2000) describe a new generation of students who are more independent, with more open mind, more tolerant, and more adventurous than most of the twentieth century generation and therefore the most attractive solutions for e-teaching have to be found. He describes that these students through e-learning should: be able to find information, understand the information they find, to assess the reliability of information, and to see how to apply it in order to answer any pressing questions. They also must be able to communicate their ideas through new technologies, to be able to understand others' ideas and concepts, to discern between their concepts and those of their peers, to solve problems and create new concepts. Friedman (2003) believes that technology transfer activities are a source of economic development, contributing to the development of universities.

- The interactions between components of a university (Teachers-Students-Infrastructure), caused by the transition from old systems to the new education (Web-based system, assessment and learning trough artificial intelligence mainframe systems) can contribute to competitiveness and performance (Peacock 2008; Jäntschi at al, 2007 and 2008). In studies by Stronge (2007), we are talking of characteristics and behaviors of effective teachers, who can produce large gains in learning and Finlay (1995) describes the management systems to support learning.

The increasing importance of education through distance learning in music in Romania and in particularly at the Gheorghe Dima Music Academy of Cluj-Napoca is highlighted: the population participating in this form of education is interested to acquire qualified specialization or to achieve professional conversions (Nedelcut, 2012).

2. MATERIAL AND METHODS

This article aims to provide an analysis of the dynamic development of distance education learning (in different specialty programs) at the Gheorghe Dima Music Academy (A.M.G.D.), because of the experience achieved through this type of education started 12 years ago and its uniqueness in the Romanian context as it is the only distance education program developed in an institution of higher education with artistic profile in Romania.

To achieve this we established the following strategies:

- Analysis of the distribution of the number of enrolled students in the AMGD and mode of evolution, *i.e.* the statistical comparison of the evolution of number of students enrolled in the full attendance programs vs. partial attendance (with tax and without tax) vs. distance education learning systems (with tax);

- Analysis of the dynamic evolution of different specializations that were or became organized as distance learning and to describe their particular setting (to distinguish between the teaching elements between full attendance programs (classical) and distance learning programs);
- Description of electronic educational resources employed in distance learning programs.

Distance learning from A.M.G.D. developed only on one level of certified program–licensure program and represents a significant share in the work of education on average between 30-40% of total (Figure 1).
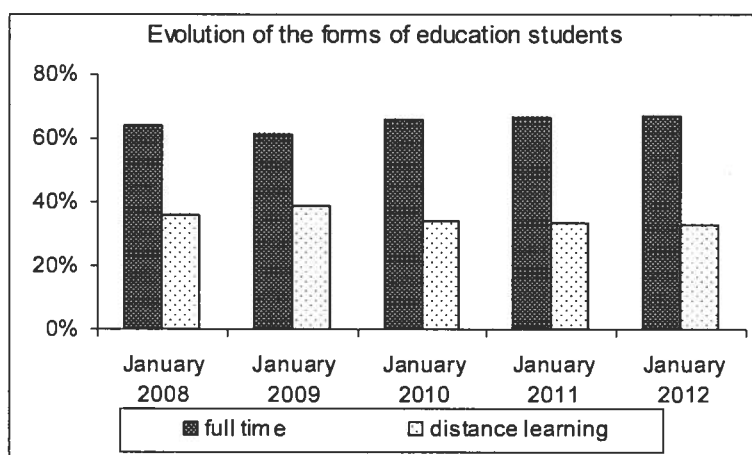

Figure 1. Evolution of the number of students from A.M.G.D. - Undergraduate education [33]

It is necessary to specify that in previous decades in Romania there were a small number of institutions which provided music education to licensure degree level (3 institutions) which led to a particular situation where a relatively large number of music teachers worked in non-academic education with a status of unskilled employers. Therefore, the first organized programs of distance education was intended to provide distance learning to those less-qualified teachers who are in this situation. The mean age of participants in these distance learning courses are depicted in Figure 2.
According to Romanian legislation, distance learning programs in university should be self-financing programs: students are enrolling in courses curricula components by paying fees related to their studies. Following the evolution of tax education in institution, we see that it share a significant part in the education license, during the 5-year period studied (2008-2012).
In the category of students paying taxes (Figure 3) were included both students enrolled in the full-attendee programs and in the distance learning programs: the largest part is that of students not paying tax followed at a distance of approximately 20-25 % of students paying tax.
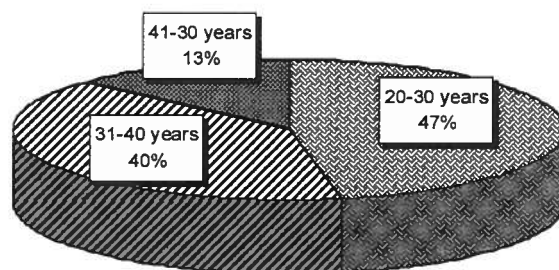
Figure 2. The percentage and the mean of participant in distance learning program
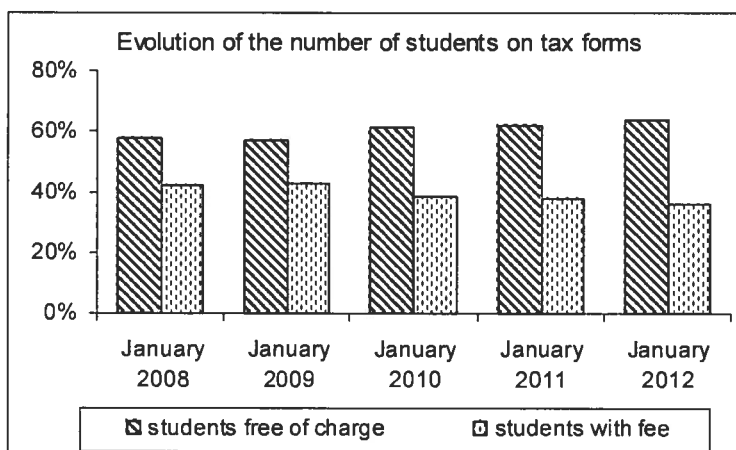

Figure 3. Evolution of the number of students from A.M.G.D. the form of education degree depending on the method of payment (with / without tax) [33]

Comparing the number of students paying tax, enrolled in the same full-attendance programs and those paying tax, enrolled in the distance–learning programs, we found that the distance learning programs dominate with the largest proportion of students enrolled (Figure 4). This situation highlights the interest shared in distance learning programs and the need to justify it to policy makers and to provide such form of learning to the community.
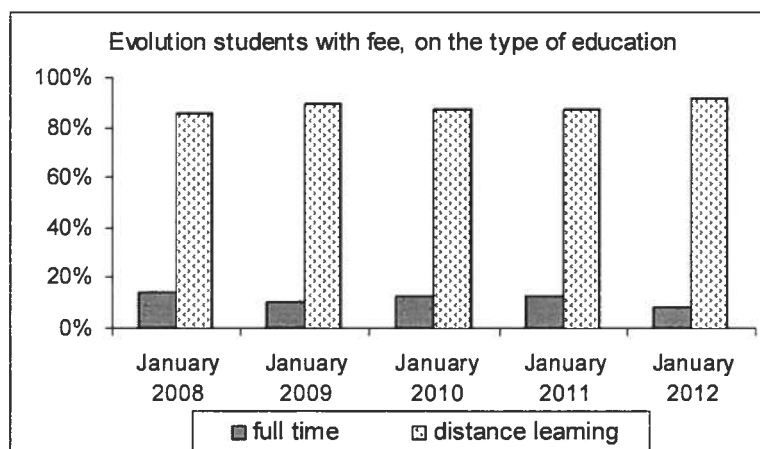
Figure 4. Evolution of the number of students from A.M.G.D. - Teaching license with fee [33]

In the second part of the present work, we compare the characteristics of the full-attendance program (conventional learning) and those of the distance learning programs from the AMGD.

The main elements that differentiate between thse two educational programs are presented in Table 2.

Table 2. Comparison of conventional learning/ distance learning

Conventional learning	Distance learning
- Students physically attend classes; - Groups are determined according to a program (hours / schedules); - Students are encouraged to work both individually and in groups; - Courses are synchronous and teachers and students interact in real time; - The learning is determined by the teacher and the institution. - Students follow a linear pattern influenced by the needs of the community and the planning done by each teacher; - Students develop skills, within the curriculum;	- Students participate in a variety of locations and can "attend" courses offered simultaneously at several educational institutions; - Participation is achieved by accessing courses, online discussion group and then by participating in a low-frequency regime to study teacher-assisted; - Students can choose to work individually or in collaboration with people who may or may not be present in the normal way; - Students can follow a nonlinear path and pace that meets their individual needs; - The teacher has the role of facilitator; - Teachers can work in several programs, which contribute to significant reduction of wage costs and consequently the final cost incurred by the student.

One of the challenges of distance learning system was the level of skills of teachers involved in the program, the use and implementation of ICT in music education. Assisting training programs for the

use of IT and training sessions for the professors involved in the e-learning activities were constanly provided by the university.

Currently, according to statistics made at the end of training courses, we have competent teachers on three distinct levels: high, medium and low (Figure 5):
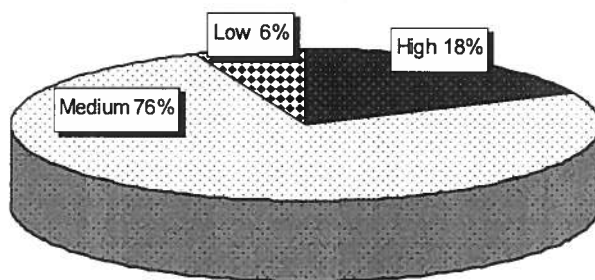

Figure 5. Percentage of professors involved in e-learning programs by different levels

of competency in the usage of I.C.T.

Analyzing how evolved teaching strategies of teachers who have been involved in distance learning we found that they facing the need for change, they moved from their original role as a leader-teacher employing methods as attributes (share knowledge, skills instructor, give examples, result driven, sandwich method, soft skills and hard skills taught separately; absolute solutions, answers) to the role of facilitator (Figure 6).
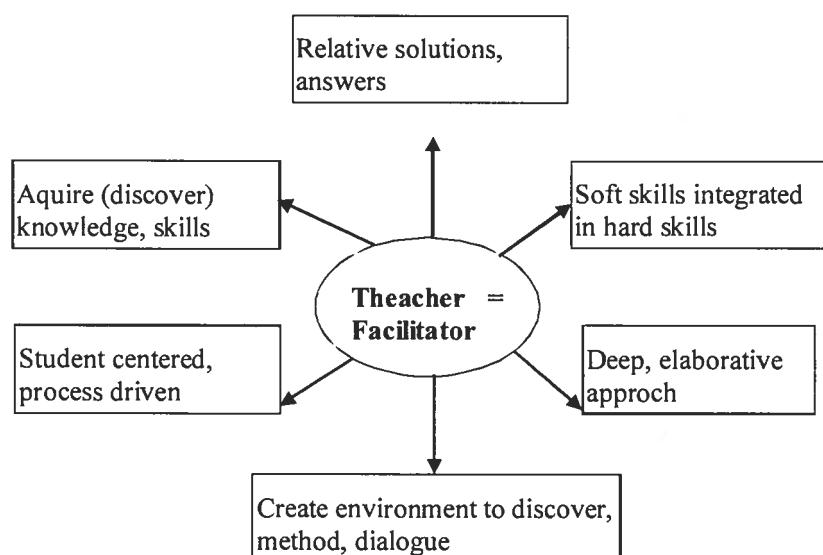

Figure 6. The teacher as a facilitator in e-learning

The role of facilitator is provided through a teaching method based on incitement to experience and practice, critical thinking and self-searching for answers, all of those being centered by Motivation, Concentration, Self Judgment, Appreciation, sharing and evoking emotions and expectations, which is different from the old style of teaching.

Studying the work of these teachers shows that they performed several types of activities: theorizing the transmission of basic audio video tracking of scores from various artistic creations, training and acquiring of knowledge through practice. These activities include: orientation (pre-knowledge, pre-conceptions), planning (setting goals, targets formulating small), process control (asking questions, comparing way of controlling your learning process), testing (developing test questions), diagnose (analyzing your problems, difficulties with the subject matter), coaching (discussing with fellow students study the solution of your problems) evaluating (developing test questions), reflecting (compare your way of studying with fellow students way of studying), self control (doing tissue activities your self), external control (teacher has to stimulate you to do tissue activities).

In the music education the distance learning program adopted is "bleanding" learning whom standards ad organization of this type of training is rigorously defined nationally. Under the law, is required to organize face-to-face meetings, in which according to a predetermined algorithm the number of hours stipulated in the curricula of the same specializations is quantified.

Three distance learning specializations, each with a different evolution in the number of students (table 3) have been have been developed and approved in AMGD.

Table 3. Distribution of university students per year depending on specialization

Specializations / Years of study	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
Music Education (Pedagogy)	36.41%	28.92%	29.86%	29.25%	28.76%
The singing (Musical theatre)	36.91%	43.39%	32.46%	32.39%	32.44%
Instrumental Performance	26.68%	27.69%	37.68%	38.36%	38.80%
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%

The analysis of table 3 show that pedagogical music and scenic art has declined while the number of students in specialized instruments has been increased; this is partially due to the interest of students in the full-attendance programs that allow them to develop competence in the field of interpretations as they are in fact former graduates or students from theoretical specializations.

The next premise of the study was the analysis of the implementation distance learning that involves teaching style governed by the following principles: involvement in planning and implementation, climates based off respect, collaborative modes of learning, learn build with use to experiences, critical reflective thinking, and participatory medium, self directed learning. Emerged as an effective tool for university, online education has replaced the original classic distance learning methodology, written material being transcribed onto CDs. Subsequently, the possibility of the internet connection

has opened opportunities for the development of collaborative environments to effectively replace classrooms into educational platforms.

The systematic organization of the electronic platforms for distance learning is presented in Table 4.

Table 4. The structure of the platform for distance learning students distanta [35]

Options	Subjects and / or related multimedia	Information
Music Education (Pedagogy)	- Disciplines can be found according to year of study, according to the curriculum*;	Each discipline includes a breakdown of the modules and then the unit, there are and how to assess its level of assimilation of knowledge;
The singing (Musical theatre)	- No separate annex multimedia (for specialization Singing) and video tutorials (for specialization Instrumental Performance).	
Instrumental Performance		
User Guide	- Guidance on use of electronic platform, Study guide for developing resources in ID technology, Ethics guide, Composition courses and teaching aids in multimedia form;	Useful information to facilitate process
System Assessment Questionnaire**	- Includes multiple-choice questions using a scale of importance and requiring the subject answered questions both closed (with the possible response options) and the open (open-response);	Needed to analyze the degree to which distance education system needs students
Other	- Includes optional courses of study possible.	Provides information about these courses, modules, units of learning
*subjects after each student is required to evaluate both the presentation and development of assisted activities (face to face) and student-tutor relationship of collaboration, course coordinator;		
**another evaluation is related to the administrative system, how information processing and transmission of materials.		

For example, in Figure 7, the folder for Canto specialization was taken from the distance learning platform in order to show the subjects of study for that year and at the end of the first window is a window that allows you to add or change their courses.

Other opportunities for study and information for students is facilitated by educational platforms music created through the efforts of European consortia, through projects in which AMGD was partner: Vemus (http://www.vemus.org), Prelude (http://www.prelude.ea.gr), E-learning voice (http://www.operasvoice.com). Designed and developed by a research contract with National funding (through exploratory research project ideas, financed by NURC, Exploring online educational resources to adapt to musical education) platform DIMA (Direct Impact Multimedia Application) has opened new opportunities for music education in AMGD, being an electronic database that was created by the whole professional staff of the institution. The main fields of study developed by DIMA platform and can be used by students in distance learning are presented in Table 5

Course categories: | Canto / Discipline de studiu / Anul 1

Edit this category | Add a sub-category

Sub-categories

Canto
Acompaniament
Arta actorului, Miscare scerica
Teorie solfegiu dictat
Istoria muzicii
Folclor
Limba engleza
Informatica muzicala
Instrument popular
Cant popular

Courses	Edit	Select
Test Course 2		

Move selected courses to...

Figure 7. Presentation navigation window specialization Singing [35]

Table 5. Classification of study material as D.I.M.A. platform [34]

Areas of study	Subfields of study
MUSICAL INSTRUMENTS AND CANTO	Accompaniment; Canto; Piano; Guitar; Trombone; The Orchestra; Percussion; Piano; Tuba; Oboe; Organ; Cello; Violin; The Viola.
COMPOSERS AND STYLES	Transition of Music from Renaissance to Baroque; Renaissance; Baroque; Classicism; Transition of Music from Classicism to Romanticism; Romanticism; Polystylism in 20th Century Music; National Schools; Postromanticism; Verism; Atonalism, Dodecafonism, Serialism; The stochastic concrete electronic music; Aleatorism; Neoclassicism; Minimalism; Postmodernism; Composers; The Evolution of the Opera until Puccini; Romanian music; JAZZ; Meloterapy; Music and Medicine.
MUSIC THEORIES AND APPLICATIONS	Semiographic aspects in romanian pianistic works of the 20th century; Harmony; Musical forms; Musical notation; Folk music; Ornaments; Tonal systems; Rhythm; Aesthetics; Dramaturgy; Lied; Music therapy; Figured bass.
I.C.T. IN MUSICAL FIELD	New music teaching strategies using I.C.T.; Electronic music technology.
I.C.T. = Information and Communication Technology	

Thus through this systematization, students can browse and access information, may acquire or improve knowledge because there are many educational materials online as audio, video, music,

stylistic analysis. For example, in Figure 8, we show in detail what is proposed to study for the specialization "Piano" in the field of study "Musical Instruments".

These courses dedicated to music within AMGD allow students to access the computer database according to their interest. The common characteristics are shown in Table 6:

Table 6: Features used in distance learning courses

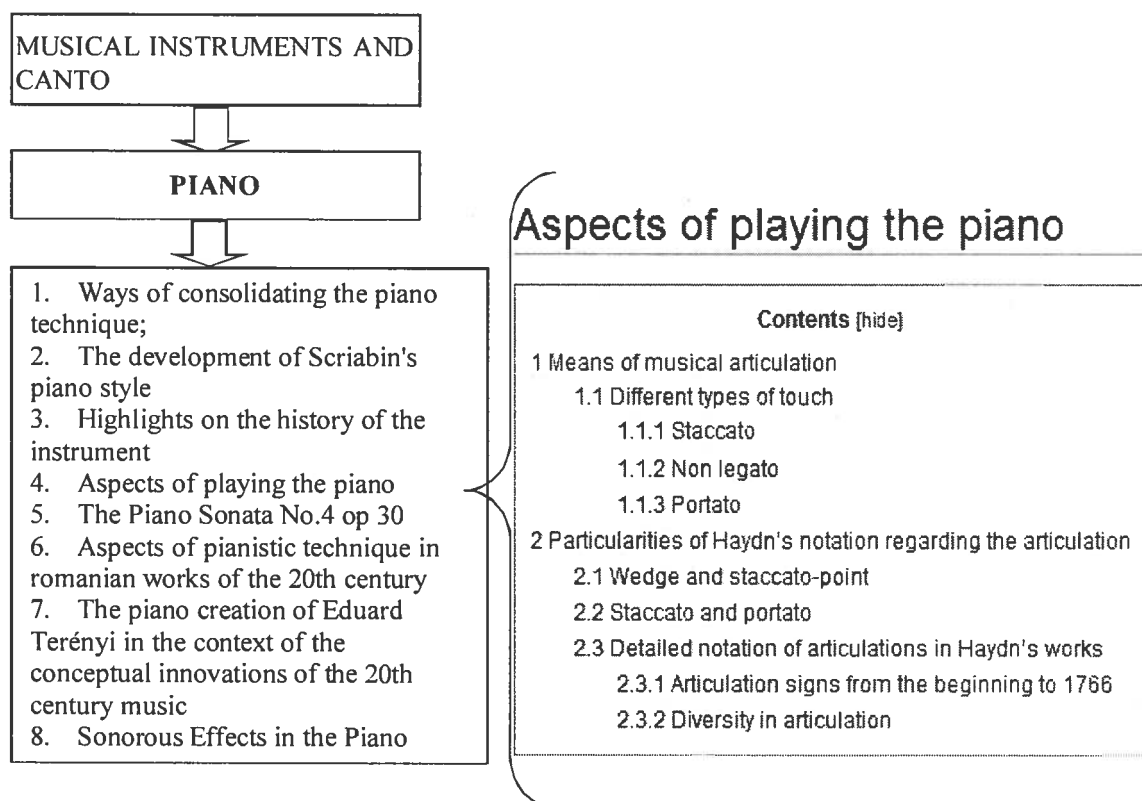| |
|---|
| - Allow the formation of skills, skills and education via the computer (for teaching to facilitate learning); |
| - Facilitates interpretation through media (CD or web browser) and the acquisition of visual benefits during learning (negative, interactive exercises, examples of video / audio); |
| - Using training methods based on the concept of collaboration, encouraging teamwork, establishing specifications and work instructions; |
| - Instructions are given to structure content for the development of course materials; |
| - Formative learning is stimulated by the explanations given by the teacher and then by various self-evaluation, written or recorded on CD; |
| - Ensure personal performance improvement and acquisition of skills and abilities by providing educational elements: information, tips, experiences; |

MUSICAL INSTRUMENTS AND CANTO

PIANO

Aspects of playing the piano

1. Ways of consolidating the piano technique;
2. The development of Scriabin's piano style
3. Highlights on the history of the instrument
4. Aspects of playing the piano
5. The Piano Sonata No.4 op 30
6. Aspects of pianistic technique in romanian works of the 20th century
7. The piano creation of Eduard Terényi in the context of the conceptual innovations of the 20th century music
8. Sonorous Effects in the Piano

Contents [hide]

1 Means of musical articulation
  1.1 Different types of touch
    1.1.1 Staccato
    1.1.2 Non legato
    1.1.3 Portato
2 Particularities of Haydn's notation regarding the articulation
  2.1 Wedge and staccato-point
  2.2 Staccato and portato
  2.3 Detailed notation of articulations in Haydn's works
    2.3.1 Articulation signs from the beginning to 1766
    2.3.2 Diversity in articulation

Figure 8. Piano study materials in the "Musical instruments and singing" [34]

3. DISCUSIONS AND CONCLUSIONS

The accessibility and availability offered by distance learning systems in the AMGD explain a continuing demand for this type of education because of the multiple benefits it provides to students: flexibility, access online self-paced learning. There are numerous advantages at institutional level: lower training costs, opportunities for continuous development and continuous improvement of the supply of courses, teaching materials etc..

Distance learning programs show that students were able to access information, to develop their own level of musical training and to enter into various communities through which it develops and acquires knowledge ("learning about"). An institution may provide students the opportunity to practice / practice by their own experiences (there is a rich archival audio, video, because rich experience and internal and external collaboration on issues of artistic creation). This allows and encourages communication, debate, discussion, exchange of views ("learning to use"), to develop skills, abilities and skills, teacher acting as mediator and facilitator of knowledge.

Benefits brought by the introduction of distance education in AMGD are not only economical but also qualitative regarding the training of teachers by using increasing levels and requirements of teaching methods and using technologies that enable continued development of teaching skills. Another direct benefit is for students (benefiting from a diverse teaching skills and to allow growth personal skills) and not at least at the university level by introducing modern technologies in the teaching system increasing the number of students through teaching opportunities offered.

Through distance education system developed in the department of distance education, AMGD is able to provide other training courses and students can call for support and consult existing content platform in use for distance education.

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