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TEACHERS' PERCEPTION OF THE IMPLEMENTATION OF DISTANCE LEARNING (EAD) IN ANGOLA: THE CASE OF ``UNIVERSIDADE AGOSTINHO NETO``

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Abstract: In Angola, there is a need to expand the supply of education, with emphasis on Higher Education, as, to date, only the face-to-face modality is in operation. This research aims to understand the perception of professors at Universidade Agostinho Neto about the implementation of distance learning in Angola, in order to contribute to initiatives to institutionalize this modality, taking into consideration, the quality of the educational process and the democratization of access to higher education. Distance Learning and its Systemic View were characterized as a theoretical framework. The Case Study and qualitative approach were used. As a result, it was found that for the institutionalization of EAD, financial sustainability and training of human resources to work in EAD is essential for the implementation process.

Keywords: Distance Learning, Teacher Training, Higher Education Institution

INTRODUCTION

In Angola, there is a need to expand the education offering, with emphasis on Higher Education, as, to date, only the face-to-face modality is in operation (Patrocínio, 2017). Among the biggest complaints from Angolan society, the poor quality of this education subsystem is revealed, which highlights its insufficient social relevance.

However, with the great impact caused by Covid-19, the impediment of access to school redefined society, and caused the family to start reconciling the challenges of work and students' lives in contexts where socioeconomic conditions are extremely difficult, which caused a profound change in the way we act and interact through technology.

This change raised some questions, questioned by Araújo and Pimentel (2020) regarding pedagogical practices in the non-face-to-face format:

"We are apprehensive about abruptly migrating face-to-face education in our country to non-face-to-face modalities, as there is pedagogical knowledge typical of these other approaches that is not the domain of all teachers. Keep classes under what conditions? How will teachers, who have no training or experience in non-face-to-face modalities, act? With what content? What will teaching mediation be like? Through what computer systems? Will we have support? Will there be time to create a new teaching design for the subject? What about labor issues? Will students, who are on in-person courses, be able to adapt to non-face-to-face interaction? As students who do not have adequate infrastructure in their homes will participate in these technology-mediated classes" (ARAUJO; PIMENTEL, 2020).

This is a moment of reflection on the challenges that teachers face regarding the training offered in Higher Education Institutions (HEIs), both public and private, with the aim of creating conditions for graduated training, expanding the offer in a rational way as well as increase the number of students enrolled.

However, the Agostinho Neto University's willingness to increase quality and access is notable, since, among its actions for the upcoming challenges, the following stand out:

- Implement an institutional project to train teachers and students on the Distance Learning (EAD) modality;

- Encourage the use of active teaching methodologies to implement Hybrid Learning.

Such actions are in line with the 21st century University in which knowledge must be valued as a productive and competitive factor, which, on the one hand, generates more opportunities, on the other, greater demands and social expectations.

One of the biggest challenges for implementing distance learning in Angola refers to the lack of professionals with specific skills to work in this segment, as stated by Patrocínio (2017). Currently, the Angolan education and teaching system persists in a traditional system, which is focused on the teacher, who transmits information, without interactivity and collaboration from students, which makes classes monotonous and means that students do not realize the value of that that is transmitted to them.

For many Angolan teachers, it is a great challenge to reverse the perspective of teaching and choose paths for learning, as "it becomes essential that teachers and students are in a permanent process of learning to learn" (MORAN; MASSETTO; BEHRENS, 2012, p.74). Hence, the importance of integrating a competency-based curriculum arises so that there is a transition from a perspective centered on the teacher and teaching, to focusing on the student and learning, which implies a change in the culture of teaching, on the part of the teacher (KENSKI, 2010). Since EAD is in the initialization phase, despite several initiatives adopted in this segment, most of our teachers do not have experience in EAD, which makes it difficult to operationalize the process.

In this work we present the results of a volume of information with professors from the University in an attempt to understand their perceptions regarding the implementation of distance learning in this institution. The data collected was generated through a workshop on "Fundamentals of Distance Learning", which aimed to familiarize teachers with the systemic vision of distance learning. Next, teachers were encouraged to participate in a debate via web conference, on the Zoom platform. Furthermore, this data was subjected to qualitative analysis to help us understand teachers' impressions about the implementation of distance learning. The research results indicate that financial sustainability in the Academic, Management and Infrastructure dimensions is the catalyst element, for distance learning to be institutionalized at the Agostinho Neto University since the legislation that defines this type of teaching has already been approved.

This work, which constitutes an experience report, is organized as follows: in section 2 we present the theoretical framework of the work, in particular the characterization of distance learning and its systemic vision, as well as the aspects focused on teacher training.

In section 3, we detail the survey method used in the research, as well as the data collection and data analysis procedures. Section 4 describes the analyzes based on the collected data and its discussion. Finally, section 5 presents final considerations about the work, indicating possible paths for the institutionalization of this type of teaching at the aforementioned university.

CHARACTERIZATION OF EAD, ITS SYSTEMIC VISION AND TEACHER TRAINING

Distance learning has historically progressed over several generations with their respective technologies, as seen in table 1:

Generation	Technology
1st Generation XIX century	The printed paper, in which he consolidated the correspondence study as a foundation.
2nd Generation Early 20th century	Radio and television transmission adding oral and visual dimensions to content.
3rd Generation 1960s	Open universities. Audio/video integration and matching.
4th Generation 1980s	Audio, video and computer teleconferencing providing the first real-time interaction of students with students and instructors remotely.
5th Generation From 1980	Convergence between text, audio and video on a single communication platform. Web-based online virtual classes.

Source: Adapted from Moore and Kearsley (2013, p. 25-48).

The regulation on EAD in Angola was recently approved, on March 3, 2020, which created a favorable environment for quality and democratization of access to Higher Education to become a reality. Presidential Decree No. 59/20 of the 3rd article, paragraph b), determines that Distance Learning is a:

> Teaching modality taught through a massive and two-way technological communication system, which replaces personal interaction in the classroom between teachers and students as the preferred means of learning, a systematic and joint action of various teaching resources (ANGOLA, 2020, p. 1960).

On the other hand, in the literature we find several definitions related to EAD and most of them converge on the idea that students and teachers are located in different spaces during all or a large part of the teaching-learning process through the resources of Information Technologies and Communication.

For Moore and Kearsley (2013) it is planned learning that normally occurs in a location other than the teaching location, requiring special course creation and instruction techniques, communication through various technologies, and special organizational and administrative arrangements. Among the main reasons for introducing distance learning in institutions, the authors highlight the following: increasing access to learning and training as a matter of equity; provides opportunities to upgrade workforce skills; improves cost reduction of educational resources; offers a combination of education with work and family life; improves the capacity of the educational system and adds an international dimension to the international experience.

This peculiarity is reinforced with Mill's (2010) argument, when he states that one of the benefits of EAD is the possibility of bringing information to the subject in their singularity and in their particular time-space of life, since it is feasible to locate the agents of the teaching-learning process wherever they are and whenever they want, creating the opportunity for communication and discussion of a given topic.

It is also worth sharing Costa's (2007) constructivist vision, considering that EAD, when defining different spaces of activity between teachers and students, must impose the mediation of the pedagogical process carried out by a team made up of tutors, both in person and remotely. Such mediation takes advantage of digital technologies that must be available to students, in addition to decentralized physical infrastructures to support students, designated as in-person student support centers, which must offer administrative and academic support, networked computer laboratories with access to Internet, rooms for face-to-face meetings and laboratories for carrying out experimental tutorials, pedagogical spaces for supervised internships, among other strategies. The author emphasizes that this teaching modality must be designed with a focus on the student, that is, this must be the center of the pedagogical process.

The culture of distance learning is also vital to the quality of this educational process. Kenski (2010) compares the classroom experience in face-to-face teaching with the spaces and times of distance learning. The author states that when experiencing EAD, she discovered that it is a new culture, which is reflected in a new relationship between participants, content, methodologies, technologies, behaviors and assessment. Therefore, acculturation of students is necessary, who "must be seen as immigrants arriving in a new land" (KENSKI, 2010, p. 63).

The elements mentioned above configure the scenario of an EAD model. For Patrocínio (2017), it is essential to understand the need for a systemic approach, in terms of

understanding the whole, based on a global analysis of the parts and how they interact with each other. This is the secret of successful practice in distance learning, as "a systemic model of distance learning is formed by all the component processes that operate when distance teaching and learning occur" (MOORE; KEARSLEY, p. 63). The systemic perspective of these authors is presented below:
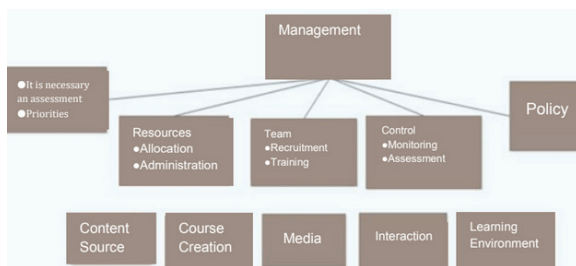

Figure 1: EAD Systemic Model

It is possible to see in this figure that, as these processes occur, they are affected and also exert various forces on the environment in which they operate such as the physical, political, economic and social environments. Moore and Kearsley (2013) also emphasize that everything that happens in one part of the system has an effect on the other parts.

However, the Quality References for Distance Higher Education reveal that elements such as: Design of education and curriculum in the teaching-learning process must be integrally included in the Pedagogical Political Project of a course in the distance learning modality; Communication Systems; Courseware; Assessment; Multidisciplinary Team; Support infrastructure; Academic-Administrative Management and; Financial Sustainability. These topics interrelate and unfold into other topics and are characterized below (BRAZIL, 2007):

- *Design of education and curriculum in the teaching-learning process:* the pedagogical political project must clearly present its epistemological opinion

on education, curriculum, teaching, learning, and the profile of the student it wishes to train; with definition, based on this option, of how the teaching material, tutoring, communication and evaluation processes will be developed, outlining principles and guidelines that will underpin the development of the teaching-learning process.

- *Communication systems*: The development of distance education around the world is associated with the popularization and democratization of access to information and communication technologies. However, the innovative use of technology applied to education must be supported by a learning philosophy that provides students with effective interaction in the teaching-learning process, communication in the system with guaranteed opportunities for the development of shared projects and recognition and respect in relation to different cultures and the construction of knowledge.

- *Teaching Material:* both from the point of view of content approach and form, it must be designed in accordance with the epistemological, methodological and political principles explained in the pedagogical project, in order to facilitate the construction of knowledge and mediate dialogue between the student and the teacher, and must undergo a (pre-test), with the aim of identifying adjustment needs, aiming for improvement.

- *Assessment:* Two dimensions must be considered in the evaluation proposal of a distance education project. Regarding the evaluation of the learning process, in EAD the evaluation model must help the student to develop more complex

degrees of cognitive competencies, skills and attitudes, enabling them to achieve the proposed objectives. In terms of institutional assessment, institutions must plan and implement institutional assessment systems, including ombudsman services, that produce effective quality improvements in the conditions for offering courses and in the pedagogical process.

• *Multidisciplinary team:* In distance education there is a diversity of models, which results in different possibilities for composing the human resources necessary for structuring and operating courses in this modality. Therefore, whatever the option established, human resources must set up a multidisciplinary team with functions of planning, implementing and managing distance courses, in which three professional categories, which must be constantly qualified, are essential for an offer Of Quality.

• *Support infrastructure:* In addition to mobilizing educational human resources, a distance learning course requires material infrastructure proportional to the number of students, the technological resources involved and the extent of territory to be reached, which represents a significant investment for the institution. Material infrastructure refers to television equipment, photography, podcasts, telephone lines, equipment for audiovisual production and video conferencing, networked and/or stand-alone computers and others, depending on the course proposal. Other elements included in the support infrastructure are: physical structure, academic-operational coordination in institutions, in-person support center, library, computer laboratory, center secretariat and tutoring offices, teaching laboratories.

• *Academic-administrative management:* The academic management of a distance learning course project must be integrated with the institution's other processes, that is, it is of fundamental importance that the student of a distance course has the same conditions and support as face-to-face teaching, and the academic system must prioritize this, in order to offer students, geographically distant, access to the same services available to in-person teaching, such as: registration, registrations, requests, access to institutional information, secretary, treasury, etc.

• *Financial sustainability:* Quality distance higher education involves a series of high initial investments for the production of teaching material, the training of multidisciplinary teams, the implementation of face-to-face support centers and the availability of other educational resources, as well as the implementation (methodology and team) of the management of the distance learning system. Initially, there is no adequate cost-benefit ratio, and it is only viable taking into consideration, the amortization of the initial investment in the medium term. For some analysts, a permanently monitored and evaluated project combined with technological advances means that a distance learning course is always in the process of improvement, which keeps the number of investments high. To guarantee the medium-term continuity inherent to a higher education course, especially an undergraduate course, the institution must prepare a project cost spreadsheet, in line with the political-pedagogical project and the forecast of its resources, showing in particular the following elements: investment (short and medium term) and funding.

In addition to these references, Moran (2009) also argues that the quality of distance learning is not measured by the number of students involved, but by the seriousness and congruence of the pedagogical project, by the competence of managers, educators and mediators and by the way in which the student It is involved.

From this perspective, it is known that the teacher is the main agent of transformation, as he is understood as the one who produces, stimulates and develops knowledge (OLIVEIRA; MILL; RIBEIRO, 2014).).

Behar (2009) argues that pedagogical practice must take into consideration, various activities that allow the student to learn, ask questions, research, work collectively, plan and organize. Hence the importance of a competency-based curriculum focused on the constructivist model, in which the student is the center of the teaching-learning process.

The author defines a complex set of knowledge, skills and attitudes, which are reflected in some domains necessary for the development of skills to perform distance learning, such as: technological, sociocultural, cognitive and management. In short, these elements need to be linked to the continued training of teachers.

METHODOLOGY

The methodology used was qualitative research (CRESWELL, 2017, p.190) in the form of a Case Study (LUDKE and ANDRÉ, 1986). This approach occurs as "[...] the researcher takes field notes about people's behavior and activities in the context of the research." (CRESWELL, 2007, p.190). On the other hand, Ludke and André (1986) argue that the characteristics of the case study overlap with the general characteristics of qualitative research, since research of this nature aims at discovery; emphasize interpretation in context; They portray reality in a complete and profound way, in addition to seeking to represent the different points of view present in a given situation.

As it was previously mentioned, the present research aims to understand the perception of professors at Universidade Agostinho Neto about the implementation of distance learning in Angola, in order to contribute to institutionalization initiatives of this modality, taking into consideration, the quality of the educational process and the democratization of access to teaching at this university.

Therefore, a workshop was given on the "Fundamentals of Distance Learning", the aim of which was to familiarize teachers involved in research with the concepts of distance learning and its systemic vision. Furthermore, it aimed to provide an environment for discussions and enable new contributions from participants, thus adding new insights to the results obtained as a result of this initiative.

The training was aimed at teachers from the most varied Faculties of the Agostinho Neto University, including Intern Assistants, Assistants, Assistants, Associates and Professors, making a total of 40 people involved.

In addition to the objectives of the aforementioned workshop, an intense debate was held on the main challenges that Angola, in particular the Agostinho Neto University, faces in the face of implementing EAD, via web conference, through the Zoom platform, which was recorded for later analysis.

RESULTS AND DISCUSSIONS

After transcribing the workshop, which lasted an average of two hours, reading and re-reading, the conceptual guidelines of "key expressions" and "central idea" were adopted. (RIBAS, 2014). According to Lefèvre's conception (2012), these expressions are pieces, excerpts of the speech, which must be highlighted by the researcher, and which

reveal the essence of the content of the speech. As for the central idea, it reveals, describes and names, in the most synthetic and precise way, the meaning(s) present in each of the analyzed answers and each homogeneous set of a key expression.

This section presents the data collected from the research subjects, in relation to the implementation of this modality in Angola, considering the systemic approach of Moore and Kearsley (2013). Table 1 presents the question that gave rise to the debate, with the respective key expressions and central idea for each of the identified participants.

As it was seen in the key expressions, when analyzing the transcripts of the recorded video, most of the research subjects' statements revolve around the following aspects:

- Negative belief about the institutionalization of distance learning, since the Agostinho Neto University lacks infrastructure (laboratories, computers and Internet), in addition to the lack of a normative document from the Organic Units or Faculties;

- Application of EAD in Medical and Exact Sciences (Physics, Chemistry and Biology), due to its peculiarities;

- Importance of interaction/communication so that distance learning can occur, as the most important thing is the human relationship;

- Financial sustainability in the three dimensions (Academic, Management and Infrastructure) is essential for EAD to be institutionalized at Agostinho Neto University;

- Team management, in terms of knowing whether the teams dedicated to in-person teaching are the same as those dedicated to distance learning;

- Implementation of active methodologies and Hybrid Learning;

- Creation of a multidisciplinary Research Group in Education and Technologies that integrates teachers from the most varied Organic Units, with a view to synergy, sharing of knowledge and boosting distance learning in the respective faculties.

The concern on the part of professors at Agostinho Neto University regarding the quality of the teaching-learning process and the democratization of access to Higher Education is well-known, thus creating an urgent need for this institution to fulfill its role, with a view to autonomy and sustainability. financial, these being the starting point for this process to actually begin in the institution. Through this variable, actions will emerge aimed at maximizing the training of human resources in the acquisition of distance learning skills, with emphasis on content production, instructional design, active methodologies and hybrid teaching, production and use of digital technologies and management of distance learning.

FINAL CONSIDERATIONS

The workshop enabled the researcher to obtain several *insights* into what measures to adopt to institutionalize this teaching modality, possible solutions, as well as the use of Information and Communication Technologies (ICTs) in education. It also provided an interdisciplinary environment for a lot of learning with the research participants, providing the opportunity to exchange experiences and obtain new knowledge regarding the implementation of distance learning in Angola.

However, it is essential to think about the flexibility of the distance learning model proposed for different contexts, as the mandatory nature of certain elements can

8

Question: According to the workshop on "Fundamentals of Distance Learning", what are your views on the implementation of Distance Learning in Angola?		
Participant	**Key expressions**	**Central Idea**
P1	"Looking at the components that make up EAD, our institution has neither the structure nor legislation to implement EAD".	For EAD to occur, there must be a technical document that regulates it in the Organic Units, as well as a high investment in infrastructure.
P2	"What is the relationship between EAD and medical sciences? These require touch. The student must touch the patient. That's what I'm worried about. Technology is good, but there are technical aspects that do not adapt to our reality. We simply have a more practical component than a theoretical one, and today's medicine no longer suffers from theory. After all, there can be no theoretical doctor."	When implementing EAD, it is necessary to consider the context of each specific area, due to its peculiarities, as well as the context of the institution.
P3	"When we were doing our Masters, in 2006, a Moodle platform was implemented, so there was no team that knew how to maintain and provide consistency in this process. Everything stopped working because nothing went through sustainability, which goes through the three dimensions of EAD: Academic, Management and Infrastructure, without forgetting supervision and monitoring. EAD presupposes two-way communication and permanent feedback. Who will put the information on the platform? The student asked the question and there was no one to answer. I would like to know if the teams dedicated to EAD are the same ones that also participate in In-Person Education?"	The importance of training staff with specific distance learning skills in the three dimensions is essential. It also highlights the importance of an efficient mentoring system and a multidisciplinary team to make this modality viable, as well as the variable of financial sustainability.
P4	"The situation that worries me is that in my classroom, the students who have computers and smartphones can be counted on their fingers. These are the reasons why EAD does not happen, not because it adheres to the traditional model, but as long as there are no resources, investment from our government, reinventing on the teacher's side becomes much more complicated".	It is essential that the government creates and implements connectivity or access policies, negotiating with telephone operators and Internet services, with a view to democratizing access to Higher Education in this institution.
P5	"We are thinking about university and, therefore, we have several faculties here. What we lack is interaction between them, as the Faculty of Medicine needs the Faculty of Engineering, which in turn needs the Faculty of Sciences. If we come together, we can create a multidisciplinary team."	The creation of multidisciplinary teams and projects can provide an environment for sharing knowledge, generating synergy for the issue of institutionalizing distance learning.
P6	"It is true that with the pandemic situation, most teachers had to migrate to Remote Learning, and the difficulty in accessing technological infrastructure makes it difficult for many students to follow classes remotely. In my experience, I divide theoretical classes from practical classes. This way, I can minimize time by using Facebook and leaving the videos, audios and tutorials in.pdf available there. This way, I can make my classes more flexible."	It is essential to implement active methodologies as well as Hybrid Teaching, with emphasis on the flipped classroom, the production of content and the use of digital technologies, so that the teaching model is as constructivist as possible.
P7	"This is a very important challenge for this institution. Regardless of the difficulties, I think we must start. The researcher, our instructor, leads us little by little to make something that is a product. There was talk of a research group, which is something extremely important that this institution must have."	The initiative is the basis for the success of EAD. Interaction between different faculties can promote an interdisciplinary environment, in order to create synergies to achieve digital transformation.

Table 2: Key expressions and central idea of the debate on the implementation of distance learning

hinder or even prevent the implementation of certain aspects, as in the case of Angola.

However, we found in the debate that, for the EAD model proposed for Higher Education in Angola, the infrastructure, both physical and technological, must be the central or starting point, as it is what will guide this implementation, under the systemic view of its components.

We also found that Digital Technologies promote the quality of distance learning by contributing to the improvement of interaction and teaching and learning processes in distance learning courses. However, they cannot be reduced to the means of human development,

as they do not fully offer solutions to more complex problems, such as, for example, the lack of culture in this modality, the lack of material conditions, the lack of familiarity with technological resources for a large part of the Angolan population.

Despite the Agostinho Neto University's intention to institutionalize Distance Learning, pedagogical practice is one of the critical factors in this endeavor. It is essential that this takes into consideration, various activities that allow students to learn, ask questions, research, work collaboratively, plan and organize themselves, increasingly becoming professionals with 21st century skills.

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