

Chapter 99

Virtual learning environments: EAD and its history

 [10.56238/tfisdwv1-099](https://doi.org/10.56238/tfisdwv1-099)

Maria Giselle Pereira Leal
UFC

Maria Euzene Rodrigues
UFC

Herminio Borges Neto
Dr.
UFC

ABSTRACT

Virtual teaching and learning environments enable mediation in distance learning, through the tools present in these environments, allowing interactivity and learning, favoring the student's autonomy concerning the activities developed in Distance Education courses (EaD). The purpose of this is to make a historical reference to EaD and its tools in virtual environments, associating the evaluation and participation of students in FACED/UFC disciplines. Methodologically, this study was carried out through research and studies carried out in the area, seeking to know the history of EaD, and how it emerged and was

integrated into the profile of professionals, given the difficult access of students to face-to-face teaching institutions or difficulty in reconciling schedules of work and study. EaD has been developing at each historical moment, in the face of the creation of new technologies. An example of virtual environments is the platforms: TelEduc and Moodle. In the results of this study, we found that virtual environments allow for interactivity and mediation between trainers and students in real-time, which is possible due to the tools present in the environments, unlike the first generation of EaD, where correspondence was used that did not offer this immediate contact. between teacher and student. Then, EaD began to use audiovisual resources (a phase also known as Telensino), and after the 20th century, with the emergence of the internet, virtual teaching and learning environments began. Thus, we conclude that EaD has been constantly undergoing transformations and adapting to the technological innovations of each era, currently being widely used also at a higher level.

Keywords: Virtual environments, Distance education, Mediation

1 INTRODUCTION

The use of virtual teaching and learning environments enables mediation in distance learning, using tools that allow interactivity and learning among participants, favoring student autonomy in the face of activities developed during the course, as Jean Piaget states that “the student is the focus and the teacher plays a secondary role in teaching”. EaD is an education system based on procedures that allow the establishment of teaching and learning processes even where there is no face-to-face contact – it also enables a degree of learning in an individualized way (CROPLAY and KAHAL, 1983).

This new space for the teacher's performance requires qualifications, as this space is updated in the face of technological "news", at the same time it requires qualified people to work in this area of education. In virtual teaching environments, the teaching action is shared, where the student, teacher, and trainer interact, and communicate in real-time, contrary to what happened in the period when EaD used correspondence, which caused a delay in communication.

EaD can also be characterized by types of distance, which, according to Kenski, are: Geographical distance – students and teachers are not in the same place, ie the traditional classroom. Initially, this type

of training was aimed at students who lived far from the institutions. Temporal distance has an adult audience, who, due to their work schedules, seek to study at a distance; determine their schedules to be dedicated to studies, even though they are close to an institution.

2 EAD HISTORY

The first educational institution to use the distance learning system was the Toussaint and Langeseherdt Institute in Germany in 1856. The distance education educational process began with the invention of the correspondence stamp, and its creator Isaac Pitman (1840). In 1873, it was the turn of the United States, when Anna Ticknor founded the Society to Support Homeschooling. In France, the use of EaD began in 1977, much more recently in other countries. In Canada, the need to implement distance learning with children and adolescents was perceived, due to the distance and isolated locations in certain regions that are too cold and not always accessible (VIGNERON, 2004 P. 02).

Contrary to what many people think, EaD has a long history, but due to a lack of information, a large part of the population believes that EaD started with the emergence of the internet. Distance Education began its trajectory in 1840 in England, when the first postage stamp was launched, that is, EaD was previously known as correspondence teaching.

According to Alves (2009), there are indications that EaD emerged in Brazil over a hundred years ago, just before 1900. According to surveys carried out¹, there is evidence of advertisements in newspapers in Rio de Janeiro offering vocational courses by correspondence, which were taught by private teachers, that is, the professionals who taught these courses were not officially linked to a professional education institution.

In 1904, International Schools were installed, which offered, and still offer distance learning courses. The courses offered were aimed at training trade and service professionals. Today, undergraduate and graduate distance courses are offered, as well as blended courses in primary and secondary education. The didactic material and correction of the tests were sent by mail, and at the time, the Brazilian railroads were used, which caused a significant delay in correspondence. It is noteworthy that for about twenty years there was only this type of education in Brazil (ALVES, 2009).

In 1923 Brazil began to use means of communication starting with the radio. In the same year, Rádio Sociedade do Rio de Janeiro was founded. In the 1930s, the government feared that revolutionaries would use this means of communication to spread their ideas. On the radio, his main objective was to promote Popular Education.

The educational programs were multiplying and reaching different Brazilian regions. The radio operated on the premises of a higher school, and in 1936 the founders had to donate the station to the

¹Studies carried out by IPAE based on elements available at the time and newspaper editions, specifically Jornal do Brasil.

Ministry of Education and Health. In 1937, the Educational Broadcasting Service of the Ministry of Education was created (ALVES, 2009, p.09).

From the development of EaD through the radio and churches, other institutions such as SENAC started to offer several courses. In the spotlight, we have the Rádio-Postal School, A Voz da Profecia, and the University of the Air, among others. In the same period, the Basic Education Movement emerged in the Northeast, and in the South, the Padre Leonel de Moura Foundation.

Between the '60s and '70s, TV became a great ally for the expansion of EaD. In 1967, the Brazilian Telecommunications Code determined that broadcasters broadcast educational programs. In 1972, the National Tele-Education Program (Prontel) was created, which was short-lived, but then the Brazilian Center for Educational TV (Funtevê) was founded, an organ of the Department of Technological Applications of the Ministry of Education and Culture (ALVES, 2009, p.10).

In the 90s, TV stations were released from the obligation to broadcast educational programs, and these programs were schedules provided by the stations, and according to Alves (2009), such an attitude represented a significant setback for EaD in Brazil. TV Educativa belonged to the Ministry of Culture, rather than the MEC (Ministry of Education). This process culminated with the emergence of the closed TV system, and in the same period university TVs, TV Cultura, and Canal Futura appeared. But access to this type of programming was still very restricted, few had access to it, leaving society to question why educational broadcasters were in a closed system, instead of an open system, where the entire population would have access to programming. educational (ALVES, 2009, p.10).

EaD is characterized by three generations, as it accompanies the technological development of each era, according to the culture of the society in which it has been inserted. Despite facing several challenges, EaD has been developing and creating mechanisms and methods that can improve the teaching work in the teaching and learning process. The three generations are:

First Generation: teaching by correspondence, initiated in the late 19th century by the development of the printing press and the railways. In this pioneering phase, the interaction between teacher and student was slow (BELLONI, 2006, P. 56).

Second Generation: distance multimedia teaching – developed in the 60s, integrating the use of printed material, the means of communication, and the use of computers (BELLONI, 2006, P. 56).

Third Generation: In the 1990s, with the development and dissemination of New Information and Communication Technologies (NTIC), course units conceived in the form of interactive and computerized programs (which will tend to replace printed course units), telematic networks with all its capabilities (database, e-mail, discussion lists, websites, etc.); Didactic and scientific dissemination CD-ROM (BELLONI, 2006, P. 56).

Thus, we aim, in this study, to make a historical reference to EaD and its tools in virtual environments, associating the evaluation and participation of students in FACED/UFC disciplines.

2 METHODOLOGY

This study was carried out through research on the use of virtual environments, with the participation of trainers and professors of the EaD discipline of the Pedagogy course of the Faculty of Education/FACED, allocated at the Federal University of Ceará/UFC, from November 2010 to March 2012. Aiming to know the history of EaD in the first generations and its current generation is marked by virtual teaching environments. This analysis aims to present the quality of mediation and interactivity of EaD in the course of its history. Show the tools used in EaD from the beginning of its history to the virtual teaching and learning environments.

Initially, we evaluated the virtual environments: Teleduc, an educational environment, was developed by the Núcleo de Informática da Educação (NIED) of the University of Campinas Unicamp and its distribution is free/free. "This environment has four different types of users: coordinating administrator, trainer, and student" (KENSKI, 2008). In the Faculty of Education, TelEduc Multimeios is used, as a distance learning environment through which courses can be held and serve as technical support for face-to-face subjects. Moodle Multimeios is another distance learning environment on the Multimeios Laboratory server (www.multimeios.ufc.br).

We evaluated the use of virtual teaching and learning environments, such as Teleduc, Moodle, and Blog Multimeios, which allow mediation in distance learning. The tools that allow interactivity and learning between students, trainers, and teachers used have been e-mail, forums, bulletin boards, logbooks, and portfolios, among other tools, present in Teleduc, favoring student autonomy in face of activities developed in education the distance.

Interactions through the resources available in the environment encourage individual exchanges and the formation of collaborative groups that interact, discuss problems and themes of common interest, research, and create products at the same time as they develop (ALMEIDA, 2001). In these environments, student participation is essential, as it is through it that the teacher will evaluate their performance and learning.

Here, the intervention of the teacher or trainer should occur when necessary. If students participate a lot and there are few interventions by the teacher or trainer, it means that the class is "fine", but if there are many interventions and little participation, it is interpreted that the class is moving away from the focus and the trainer tries to call them to focus. on the topic discussed.

The use of the internet in education encourages students to develop their autonomy, as long as they are well-guided. Kenski (2008) draws attention to how education is treated by many educators, when he says: "the concern of education must go beyond this training", that is, even with the use of technologies, the teaching methodology technically passes knowledge, without worrying about the development of the student.

EVALUATION Methods in EaD

The evaluation in EaD is continuous, progressive, and constant, that is, the student is being evaluated day by day. The evaluation takes place not only through written works posted on the platform but also through their critical development and opinions debated in forums, online chats, logbooks, etc. Written works, according to distance learning evaluation methods, should not be commented on only by the trainers and the teacher, but by the student commenting on student work, that is, the student takes on an active role in the evaluation process itself.

3 RESULTS AND DATA ANALYSIS

We observe that new teaching methodologies are required and necessary for teaching, seeking to develop creative activities, etc., since the use of the internet, just using it, does not streamline the class, that is, the class runs a serious risk of remaining traditional, without the active participation of the student, where he only absorbs the content taught in the classroom via the internet. Technologies require educators to transform the teaching methodology because if used in a "traditional" way, it will contribute little to educational development. Contrary to what many claims, ICTs are not intended to replace the teacher, but function as pedagogical support. The teacher must qualify, and always be up-to-date to keep up with the technological development of the society in which he is inserted.

In our results, we found that virtual teaching and learning environments enable interactivity and mediation more effectively, the TelEduc environment surveyed, there was 80% participation in forums and mail, but the logbook was only 35% from the students. 65% of students reported in e-mail messages that they were not sure how to use the logbook.

On the Wall, participation was 40%, every day there were new posts on the platform, which left something to be desired. Because the tool makes it possible to post news on the platform, where students can disclose what is happening "new" in society, politics, culture, etc. Interestingly, one of the students daily left a post on the wall and sent a message in the mail to all participants asking their colleagues to check the posted news.

In Moodle, 90% of the students participated. Although many reported at the beginning that they had never used a virtual environment and that they initially had access problems due to forgetting the password or long. Faced with these problems, it is possible to perceive some impediments of EaD nowadays, such as human failures, as well as the system itself, such as offline websites.

The number of users who had never used an educational environment was 70%, confirmed by reports in forums and mail. A considerable number asked for guidance on how to use the tools in the environment, where they should post their written work, etc. These are typical questions from students who were having their first contact with EaD. Difficulties in accessing information and communication technologies characterized a considerable rate of 60% of digital exclusion.

4 CONCLUSION

Therefore, Distance Education is constantly transforming and adapting to the technological innovations of each era and in society according to its culture. These innovations throughout history, contribute to the improvement of teaching so that it can be of quality and reduce the distance between teacher and student.

We observed that the factors that compromise the development of EaD nowadays, in the first place, include access to the internet, followed by the inexperience of users in these environments, followed by the lack of information on how the evaluation process of each activity will take place.

Other studies are needed that can establish the evaluation methodology from the beginning, as well as follow-up studies for a better understanding of better performance in the teaching and learning process in EaD, and that, historically referencing EaD must also be part of the process of teaching and learning in today's society.

REFERENCES

1. ALMEIDA, F. J. (Coord). Projeto Nave. **Educação a distância: formação de professores em ambientes virtuais e colaborativos de aprendizagem**. São Paulo: [s.n.], 2001.
2. ALMEIDA, Maria Elizabeth Bianconcini de. **Educação a distância na internet: abordagens e contribuições dos ambientes digitais de aprendizagem**. In: Educação e Pesquisa, São Paulo, v.29, n.2, p. 327340, jul./dez. 2003. Disponível em: <http://www.scielo.br/pdf/ep/v29n2/a10v29n2.pdf>. Acesso em: jan. 2010.
3. BELLONI, Maria Luiza. **Educação a distância**. 4. ed. Campinas, SP: Autores Associados, 2006. 115 p. (Coleção Educação Contemporânea). Formando professores para atuar em ambientes virtuais de aprendizagem.
4. KENSKI, Vani Moreira. **Educação e tecnologias o novo ritmo da informação**. 4a.. ed. Campinas São Paulo: Papirus, 2008.
5. KENSKI, Vani Moreira. **Educação e tecnologias: O novo ritmo da informação**. Campinas, SP: Papirus, 2007. (livro completo)
6. KENSKI, Vani Moreira. **Tecnologias e ensino presencial e a distância**. 3.ed. Campinas, SP: Papirus, 2006. 157 p. (Pratica Pedagógica) ISBN 8530807081.