Diego Mauricio Mazo Cuervo[1] **– Giovanny Cardona Montoya**[2]
CEIPA University
diego.mazo@ceipa.edu.co
giovanny.cardona@ceipa.edu.co

ENTREPRENEURS TRAINING MODEL: LINKING THEORY, PRACTICE AND VIRTUAL LEARNING ENVIRONMENTS. CEIPA UNIVERSITY CASE REPORT

1. Introduction

1.1. Theoretical references and distance education models

The CEIPA educational model is fundamentally constructivist; to demonstrate this trait, it is necessary to recognize the impact of the environment in which the individual works and the context in which learning takes place (Capella, Sánchez-Moreno, 1999). In constructivism there are two dialectically integrated approaches: the first one is focused on the individuality of the learner (Piaget), and the second one by Vygotsky, which is more focused on the historical and cultural context.

Vygotsky's explanation of learning and the role of communication technologies, stresses the fundamental role of the zone of proximal development (ZPD), which „synthesizes the concept of development as appropriation and internalization of instruments provided by cultural agents. From the theoretical point of view, it stresses the cooperation with others as the origin of development (Castellanos, 2002).

The ZDP is an essential feature of learning; this awakes a series of internal evolutionary processes able to operate when the person is interacting and collaborating with other individuals in his own environment. Once these processes have been internalized, they become part of the independent student evolutionary achievements. The method and mediations must ensure that the student interacts with autonomy, confronts theory with reality, solves the production problem, and applies the skills in the process (Cardona, 2011).

There are different concepts of what distance education is, and in recent decades there have been many associated to the e-learning methodology or modality. Without debating the relationship among the *distance education* and *e-learning* categories, we recognize that there is a wide literature that aims to highlight the particularities of this alternative to the traditional educational model which has privileged for centuries the face-to-face interaction among the actors in the process, and to explain its purpose.

In the search for information, two different approaches were found. The first one shows distance education as a historical category which responds to contextual requirements which vary with the social political, economic and cultural transformations.

[1] President of CEIPA University, MBA from Universidad de Los Andes, Colombia.

[2] Research Manager of CEIPA University, Doctor of Pedagogical Sciences of Universidad de Pinar del Rio, Cuba.

The second approach focuses on the characterization of the modality beginning with the relationships and the roles of the subjects, as well as the particularities and challenges of the resources and mediations that remain at the disposal of the process.

1.2. Distance Education as a historical process.

Although some authors consider that distance education could be originated in the 1840s, using email as a primary means of communication, Wedemeyer claims that writing is the starting point and that other advancements have been developed after this one, such as the printing press, correspondence and information technologies (García, 2002).

Distance education would have appeared as a response to an explosion in the demand for education, because of demographic growth, the more active participation of women, and the evolution of the productive processes, among others (García, 2002). However, traditional education models did not have enough conditions to meet these emerging needs. People who work, little village's populations and „tailor-made" training needs require a response which face-to-face classical education cannot provide.

In this historical process, the development of technique and technology has played an important role: „the technological transformations which have reduced distances have been a constant cause of unexpected progress of a non-face to face teaching/learning system" (García, 2002: 10). The fact that people have devices in the domestic environment strengthens the use of self-learning and collaborative learning.

According to Garrison (1985, 1989) distance education has evolved over three major technological advancements: correspondence, telecommunication, and telematics. García also adds to this list, the role of the media.

Teaching by correspondence, in its initial phase (19th century), was based on asynchronous communication and little pedagogical elaboration. However, when the texts where accompanied with guides, exercises and support manuals the relationship acquired a more defined didactic character. It was also possible to have a horizontal communication among peers in training (Sauvé, 1992, cited by García, 2002).

Teaching with multimedia started in the 1960s decade, and combines radio, TV, written texts and contents in audio and video cassettes and slides are created. At this stage the production of content is still more relevant than the interaction between teachers and students (García, 2002).

Telematics teaching (1980) involves the interaction of telecommunications with other educational means, using the computer. According to García, you would go to **a distance education focused on the student** through an agile, immediate and permanent interaction process, in vertical and horizontal directions, and in addition to the asynchronous communication, there is the synchronous option (2002).

In a more contemporary stage, teaching via the internet becomes a model of flexible learning, which focuses on the use of an interactive multimedia, computer-mediated communication and educational communication via the Internet (Hirumi, 1997).

This technology helps to overcome one of the biggest obstacles and shortcomings that have permanently been blamed on distance education, the slowness of giving feedback to the learning process of the students (García, 2002).

1.3. Distance education structures and relationships.

In regards to the second approach, as first reference we take the contributions of Wedemeyer, who believes that the essence of distance education is the students learning independence; instructional media and technology will be used to foster the independence of the student.

While Wedemeyer focuses on independent learning, Moore privileges the weight of communication and mediation. For Moore, the key to understanding distance education is the analysis of the amount of autonomy of the student, the distance between subjects and the direction of the communication (1993).

In this reflection among subjects and mediations emerges the Holmberg´s **theory of guided didactic conversation**, who acknowledges a discontinuous communication (separated by time and space). The quality of such communication depends on the motivation and desire to learn, as well as the sense of belonging and collaboration between the different actors. Similarly, the theory of guided didactic conversation recognizes the question-answer relationship as a central axis to achieve the contribution of quality communication to learning.

In addition, other authors prefer to explain the distance modality from its structural characteristics point of view. **Keegan – Reintegration of teaching acts Theory** – says that distance education recreates the student-teacher relationship in an environment separated from time and space. According to this author, the more the learning experiences of distance education and the traditional modality are alike, the more their results will be alike.

2. Synthesis of the theoretical references, according to CEIPA educational model

The documentary review provided us with the necessary conceptual elements to explain, build and argue about the two axles on which the pedagogical model of CEIPA spins.

2.1. The dialectic relationship between theory and practice

CEIPA University is a Business School with a student population that has a strong tendency towards employment and entrepreneurship. In fact, 70% of the students are entrepreneurs or employees at local companies. Consequently, building a distance education model which connects the social and employment environment of the student to the curriculum dynamics (García, 2002) is a necessary principle to ensure the relevance of CEIPA pedagogical model.

The core learning priorities of CEIPA curricular process is the problem core, which consists of a set of relationships that break with the traditional disciplinary education system. CEIPA core learning priorities are structured according to the dialectical spiral *practice – theory – practice*, which is originated in the real business world, and returns to it at a higher level (solution), after going through the theoretical wealth that can explain the empirical problem and its possible solution.

The problem-posing core (Núcleo problémico) is a learning unit starting from real-life or simulated situations that are associated with the business environment, which

serves as a benchmark to determine the theoretical content and learning methodologies. In this curricular dynamic, the component named as *Application work*, is the transmission belt that leads the student through the core by the learning spiral: from reality to theory and from this point to a further reality.

2.2. The virtual framework of theoretical and practical education.

The second axle of our model is the potential of virtuality in the processes of undergraduate education. Recognizing the reality of a post-industrial society, we assume that ICTs are the solid body of a social and promising dynamics that takes a holistic dimension: learning and networking.

In other words, e-learning not only needs to use mediation, but also needs to look beyond the perspective of an educational modality or methodology (MEN). E-learning is the training field of future managers, who serve in business and labor networks.

Thus, education under e-learning is a process of theoretical and practical education, since occupationally it is equally important knowing how to administer the contents as how to manage the networks comprising them: „the piping is more important than its content. Our ability to learn what we need tomorrow is more important than what we know today." (Siemens, 2004, p. 9).

The appraisal we make of social networks, communities of knowledge and virtualization of learning processes, entails understanding that the University becomes a „training for life" scenario, and particularly for business life in the case of CEIPA. This is followed by a working hypothesis that seeks to question in rigorous academic sense, the relevance to differentiate –in the context of this society of knowledge- two forms of education: face-to-face and distance.

Since the quality of higher education is crossed by the relevance of the educational processes, and that one is associated with mediations and virtual content management, and the ability to search for information and learn, build and transfer knowledge in networks, then, there is no other way to understand that quality than in educational processes developed with an increased incidence of virtual learning environments.

Therefore, if during the 19th and 20th centuries it made sense to differentiate –from a normative and pedagogical framework- the face to face from distance education, in post-industrial society especially since the development of personal computers and Internet broadband connection, the barriers of space for communication and access to information cease to be a significant distinction to explain either learning process in education.

Consequently, the principles of asynchronicity and synchronicity communication become complementary and not contradictory elements, at the same time teachers and libraries cease to be the only sources to access to information, and begin to co-exist with networks and virtual spaces of information and knowledge creation and transfer.

Consequently, virtualizing 100% of CEIPA undergraduate and graduate programs cannot be understood only as a strategy for educational coverage expansion or time and space boundaries overcoming. Virtualization is transforming the classroom into a work environment: interacting in a virtual learning process is equivalent to an internship in the society of knowledge.

3. CEIPA proposal: a dialogue between the student's work life and virtual learning environments.

As a Business school, in CEIPA the work-study combination in the education of business managers involves not only preparing students to work in networks, but also to recognize the specific motivations, interests and previous capabilities of students, based on their experiences and professional challenges. Taking into account that the majority of the student population at CEIPA is employed, it is necessary to pedagogically assess this situation.

Therefore, it is essential not only to create the conditions to develop a collaborative learning environment, involving students, tutors and business collaborators, but also a self-learning focused on student interactivity with the resources in the virtual campus and their work environment. In other words, the collective construction of knowledge is as important as each student's individual abilities and motivations.

CEIPA proposal is conceived based on the above, which is guided by three principles.

3.1. Dialogic relationship between contents and methodology

As a virtuous circle, CEIPA is a company that manages knowledge, having as its main business unit the Business Administration School, which educates in the management of business knowledge. In other words, we are what we do.

Performance and thinking skills are cognitive tools that are based on methodologies that turn theory into practice, thus, the method is the scaffold that allows transforming the theoretical construct into the solution of actual problems, permitting at the time to systematize current realities into new realities.

This definition of CEIPA leads us to understand that the relationship between the content of the education programs and the methodology used are intertwined, making difficult to establish the line between the two dimensions. Therefore, the central effort of the learning process is not knowledge of theoretical categories, but work methods that allow transforming abstract knowledge into concrete solutions.

Consequently, CEIPA Education model has three fundamental sources for the definition of content in the problem-posing core: the student working context, theories and administrative models and finally methods of research, creation, transformation and use of the information and knowledge.

3.2. Individuality as a determinant of the study methodology.

Although Colombian legislation establishes minimum enrollment criteria in higher education, each student has his own motivations, interests, and abilities to deal with an education process. As a result, and even though the curriculum framework is established, CEIPA proposal seeks to ensure that students can walk through its curriculum at different pace and with different levels of autonomy.

The degree of independence of the student, the volume of communication between actors and the use of self-learning materials, fluctuate among total autonomy characterized by an asynchronous communication and a strong interaction with the

materials on the platform, and a permanent synchronous communication between students and tutors.

While the highly independent student: rarely consults with the tutor (independent learning), works with materials on the platform and develops a fundamentally asynchronous communication with other actors, **the highly dependent student:** requires much collaborative learning, makes special use of tools and materials to work as a team and receives more private tutoring.

Both models presented are two poles, however, most students will be among intermediate ranges which combines the synchronic interaction with the interactivity of the materials in campus, simultaneously the collaborative learning and self-learning are two complementary elements of a set of methods that facilitate the education of students.

3.3. Collective Teaching.

The traditional school, focused on academic disciplines education and addressed to standardized groups of students, structured its curriculum in sets of materials or subjects, which were led by a specialized teacher. However, this teaching model does not match the challenges established by the CEIPA model, since our proposal focuses on inter and trans-disciplinary cores and seeks to ensure a personalized teaching. Consequently, taking into account the personalization of the learning process, teaching in CEIPA is not understood as an individual but collective activity. Students must be accompanied by teams of teachers who offer personalized advice, provide feedback, design materials and evaluate achievements.

Summarizing, teaching a problem-posing core of our curriculum, has to be personalized and meaningful, and must be accomplished by structured teams of facilitators carrying out complementary work. We went from the isolated compartments of an academic disciplinary and massive based instruction, to a collective, trans-disciplinary and inclusive, but personalized education.

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