A REPORT ABOUT THE TEACHER'S TRANSITION FROM PRESENT TEACHING TO DISTANCE EDUCATION CONCERNING THE ELABORATION OF INSTRUCTIONAL MATERIAL - A VIEW OF THE INSTRUCTIONAL DESIGNER

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Danielli Veiga Carneiro; Msc. - Centro Federal de Educação Tecnológica do Espírito Santo - danielli@cefetes.br

Yvina Pavan Baldo; Msc - Centro Federal de Educação Tecnológica do Espírito Santo -yvina@cefetes.br

Elton Siqueira Moura; Msc - Centro Federal de Educação Tecnológica do Espírito Santo – elton@cefetes.br

Isaura Alcina Nobre; Msc - Centro Federal de Educação Tecnológica do Espírito Santo – isaura@cefetes.br

Vanessa Battestin Nunes; Msc - Centro Federal de Educação Tecnológica do Espírito Santo – vanessa@cefetes.br

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Abstract

A *teacher's transition from present to virtual teaching takes much effort, dedication and preparation for the new challenges. The practice of present teaching can contribute or generate strong resistance against the distance style. It's necessary for the teacher to have an innovating spirit, technological skills, and will for breaking the paradigms. It may take a considerable amount of time in order to make this paradigm transition from present teaching to distance teaching happen. This paper presents a report on the present teaching group experience, from the instructional designer's view, at Centro Federal de Educação Tecnológica do Espírito Santo - CEFET – ES, during the implantation of the university course of Technology in Analysis and Development of Systems in the distance style.*

Key words: Education, Present Teaching, Distance Education, Instructional Material.

1. Introduction

Distance Education (**EaD**, stands for: *Educação à Distância*), grows in a perceptive way among the Brazilian population. Billboards all over the city offering courses in the distance style, federal government initiatives with educational institutions' partnership, companies' training programs, and others, are in progress at our sight.

It's known that EaD makes everyone's access easier, independent of it's geographic location, available study according to the pace and necessity of each individual, and the most important, with EaD the student becomes the greatest one responsible for his learning., that is, it develops each one's autonomy, a process that makes his personal and professional growth favorable.

The quality of a distance course depends on a series of connected elements. For instance: instructional material, infra-structure, learning environment and a multidisciplinary team.

The Centro Federal de Educação Tecnológica – CEFETES is the object of this research. Through the Distance Education Center - CEAD (Centro de Educação à Distância), CEFET – ES presents a multidisciplinary team formed by a general coordinator and a supportive coordinator, specialist/content teachers, a course's coordinator, an instructional designer, a pedagogue, a Virtual Learning Environment Coordinator (AVA, stands for: Ambiente Virtual de Aprendizagem), an infra-structure coordinator, a managing/financial coordinator and administrative staff.

This paper presents a report of the experience of CEAD/CEFET-ES specialist teacher and the teacher of content, who are represented in only one professional. We report the transition of these teachers, who have experience on the present style, to the distance style, which demands breaking up with some educational culture acquired along the present teaching practice, as well as knowledge on the new technologies on teaching. We point out that the main change is the acquisition of competences for interacting with the virtual student through the instructional material.

2. The Distance Educational and the Instructional Material

EaD, is a teaching style that, paradoxically, for not needing a face-to-face relationship, demands a proper and permanent interlocution process. At EaD, the apprentice will not be physically present all the time when the ideological relationship is in progress. Despite the Physical distance, however, it cannot be left out the permanent dialogue. The didactic material is the instrument for such dialogue. It has to be thought and conceived within a pedagogical project and a clearly defined curricular proposal [1].

> Distance educating does not mean simply to make it available a huge amount of information and semi-ready exercises, hoping that it will be enough for the student to learn. If that happened, we would be simply systematizing the present teaching and the pedagogical consequences would be even worse.

It is necessary to point out the ones who elaborate the material at CEFETE-ES are specialist/content teachers, whose function is very different from the one of the redactor of a text books.

Table 1 presents a comparison between the main characteristics observed in a textbook and in a material elaborated for distance education.

Textbook	EaD Material
One-way Communication.	Double-way communication.
The student is passive.	The student is actively involved.
The structure is hidden.	The student is aware of the structure.
The activity is self-driven.	The student is driven.
Lecture.	Dialogue.
Impersonal.	Friendly and cheerful.
Little application of knowledge and skills.	The student applies new knowledge and skills.
No exercises, or only at the end of the chapters.	Tasks and exercises along the text.
Contents in chapters or big blocks.	Content split into small pieces.
No tasks.	Tasks assessed.
No feedback.	Feedback about the student's progress.

TABLE 1 – Comparison between the textbook and an EaD material.
Source: [3] LAASER, 1997.

The comprehension of the table is simple; applying it is not a so usual and simple task for the majority of teachers. So, we point out the need of an interdisciplinary team, and mainly, the importance of the specialist/content teacher, and the support of the instructional designer when elaborating the instructional material (printed material, Multimedia DVD and available material within the Virtual Learning Environment - AVA).

Within the multidisciplinary team, the instructional designer is engaged in planning, developing and applying specific didactic situations, which may embody mechanisms to favor the contextualization and the flexibility, both in the conceptive stage and during the implementation, taking advantage of the potentialities of the Technology of Systems and Communication (TICs, stand for: "Tecnologias de Informação e Comunicação) [4].

The instructional designer has the following functions: choosing the ideal pedagogical theory according to the course, discipline and content to be developed; ensure the best teaching strategies, point the appropriate media to facilitate learning, incentivize the creation of collaboration and cooperation activities through the Internet; define the assessment and evaluation instruments; and others. The designer has to be involved with the planning of all activities, aiming to ensure the diversity and proper use of the TICs.

At CEFETES-ES, besides preparing the instructional material, the teacher is also responsible for managing the discipline, which is assisted by distance tutors,

responsible for solving doubts on line and interacting with virtual students. We also have the figure of present tutor, Professional responsible for the present interaction with the virtual students.

Even with the support of instructional designer and the whole team, the transition of a present teaching style teacher to EaD is not an easy task; it is necessary much effort, dedication and experience with the ministration of the discipline to become prepared to assist this style.

3. Present Teaching Teacher *versus* EaD Teacher

Several majors, except the Teaching degree, have a lack of pedagogical formation of the teachers. The teacher's practice ends up reflecting his experience when he was a student, that is, many teachers teach the way they were taught. Some teachers are still considered the ones who reproduce the content; others try to innovate with group dynamics, technical visitations, the use of multimedia sources, and others. And how will it be the transition of a teacher from the present paradigm to the distance style?

"Distance teaching is very different from teaching locally, even for teachers with a huge experience in education". [5]

According to Moran [6], we are learning to develop different pedagogical proposals for different learning situations. We realize that at EaD, the classroom universe does not only belong to teachers and students, what we have is a learning virtual environment (AVA), which registers all the participations, interactions, realizations of the proposed activities, presentation of the contents and other functionalities according to the AVA used. The contents are still revised and reassessed, by the instructional designer, text revisers and pedagogues. We point out that opening the classroom universe takes time. We realize that there is a certain resistance from some teachers to do the fitting from present to distance style.

The first distance course offered at CEFET-ES was the degree course of *Technology in Analysis and Development of Systems*, which counts on the previous knowledge, from the majority of professors, concerning the use of technologies of Information and Communication (TIC). This has been a big advantage for the implementation of the course.

Based on those questions raised concerning the acquired experience, we have realized the necessity for improving the methodology used in the transition of teachers from the present to the distance style, what leads us to our next topic.

4. A Model for the transition of the present teaching teacher to EaD

For a better understanding of the model to be presented, it's important to know about the process of elaboration of the material used until now.

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4.1. Current Model

At first, our activity related to the production of the instructional material was established this way: every teacher, invited to be the specialist/content teacher of a certain discipline, should have experience in conducting the very discipline at the present teaching. Then, the teacher attended some training in EaD, offered by CEFET-ES through other educational institutions. The first period was carried out by Universidade Federal de Itajubá - UNIFEI.

After the training, one of the proposed activities was the creation of a Map of Activities (Table 2) for planning the discipline.

Class/ Week	Main Subject	Supporting Subjects	Specific Goals	Theoretical Activities and sources / Tools of EaD	Practical Activities and Sources / Tools of EaD	Grade

Table 2 – Example of a Map of Activities.
Source: [7] UNIFEI, 2007.

In the Map of Activities, it would be the teacher's duty to plan the sources of an AVA and the media to be used according to the goals of content presented. After planning the discipline, the first instructional material to be produced is the printed material, elaborated according to the conceptual model presented in Figure 1. It is also worth pointing out that all the material produced must answer to the requisites about the copyright.
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The teaching plans, taken from the Pedagogical Project of the Course, offer the basis for the definition of the units. For each unit the specific objectives are defined. The units are organized through lessons, which must present the content in an objective way, not having more than four pages. Each lesson presents activities for assessing the learning of the contents taught. At the end of each unit, practical activities are established, using several resources, such as: forums, surveys, wikis and/or chat.

The glossary, the complementary reading and the use of annexes/appendices were not considered necessary elements for the elaboration of the material. But according to the discipline, they were recommended.
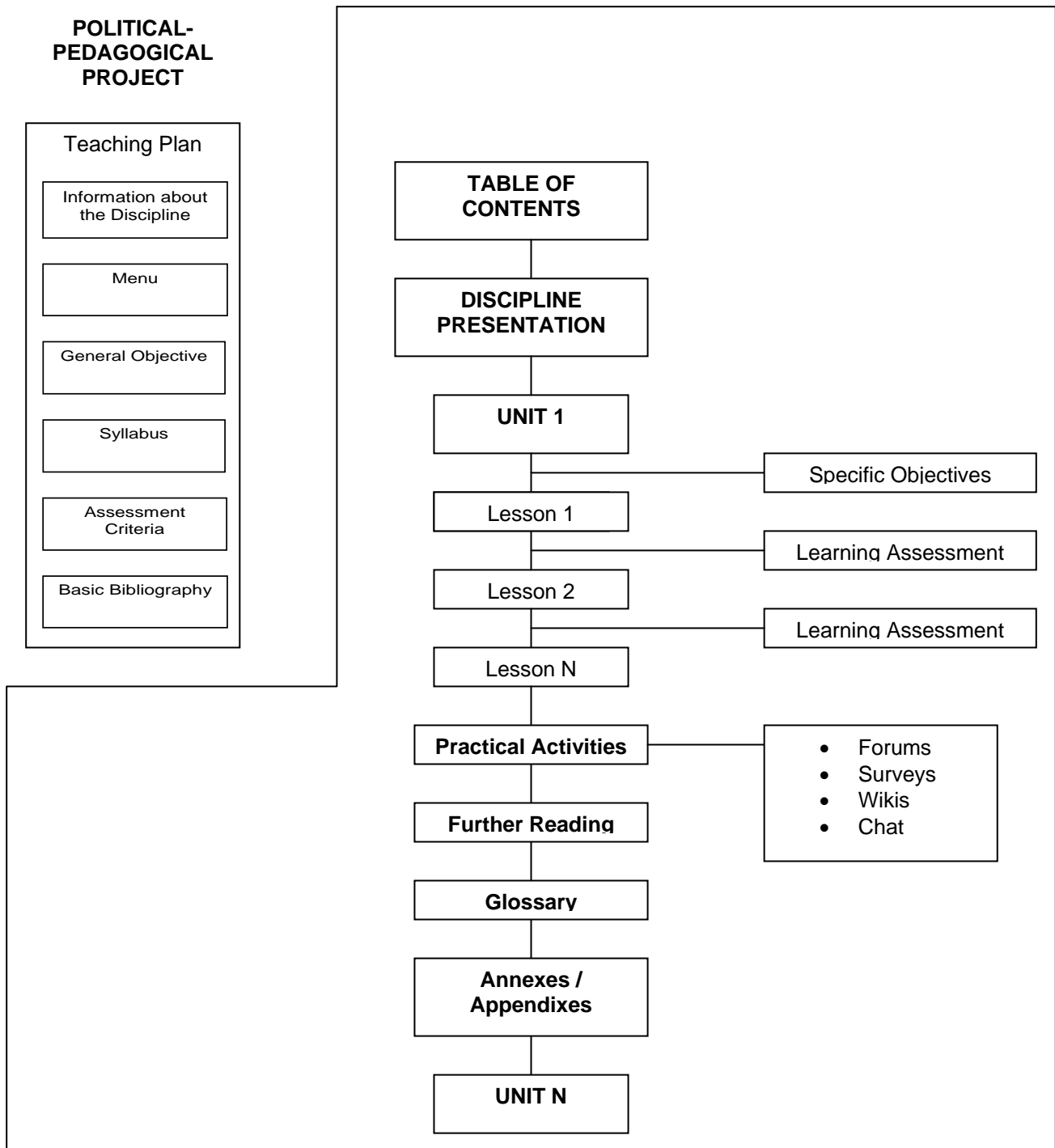
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Figure 1: Conceptual Model adopted by CEFETES

After the preparation of the printed material, the teacher selects the software and videos to be part of the Multimedia DVD, and ends the stage of the material production adding activities to the Learning Virtual Environment (AVA). Since the discipline is started for the virtual student, the specialist/content teacher takes office and manages the discipline along with the distance tutors and the present tutors.

4. Proposed Model

A New model is proposed with the usage of the new instruction material of the disciplines in progress since December, 2007, when the course started to be executed, added to the experience acquired when elaborating the very instruction material.

We realized that, even with a pre-defined model for the printed material, some teachers questioned about the definition of printed material in EaD. Is it a handout? Is it a summary of the most important points? The answer concerning the printed material is that it should be called and understood as a "Study Guide", that is, at the presence teaching the teacher presents the main contents and discusses them with the students. In this guide, it ought to appear the language for a dialogue situation, the teacher's saying to the student, the same way it is done at the presence teaching.

At the presence teaching, it may be corrected some accidental flaws within communication, according to the students' questions, which is a determinant factor to make flexible and to adapt the script, if necessary. However, how can we do it at a distance? It is important for the teacher to plan his sayings in order to easier the student's learning in relation to the content proposed, also in a way to facilitate the exchange of information, communication, between students and tutors.

It seems simple, doesn't it? But, in fact, it shows that many teachers present such difficulty during the elaboration of the instructional material for the distance course. The truth is that there is no experience, practice in elaborating the texts for a dialogue situation.

We realized so far that there are three important points for the transition to happen naturally: the teacher's experience in presence teaching, knowledge about the EaD methodology adopted, understanding about a distance student's point of view and a distance tutor's point of view. The content teacher, when he is a specialist in executing the discipline in the presence course, already knows several of the questions made by the students concerning the content, which makes it possible expressing, in a dialogue way, some explanation about the very printed material. Besides that, this very teacher has also a huge amount of exercises proposed and corrected, making the students' learning even more easier, when talking about disciplines based on solving problems.

We still realized the necessity of the printed material to be elaborated concomitantly to the Learning Virtual Environment (AVA), quoting it, creating a greater interaction between the virtual and the printed material.

Therefore, the model proposed (Table 2) presents the way of the transition to be adopted by a teacher who starts his activities at EaD, within courses offered by the CEAD/ CEFETES.
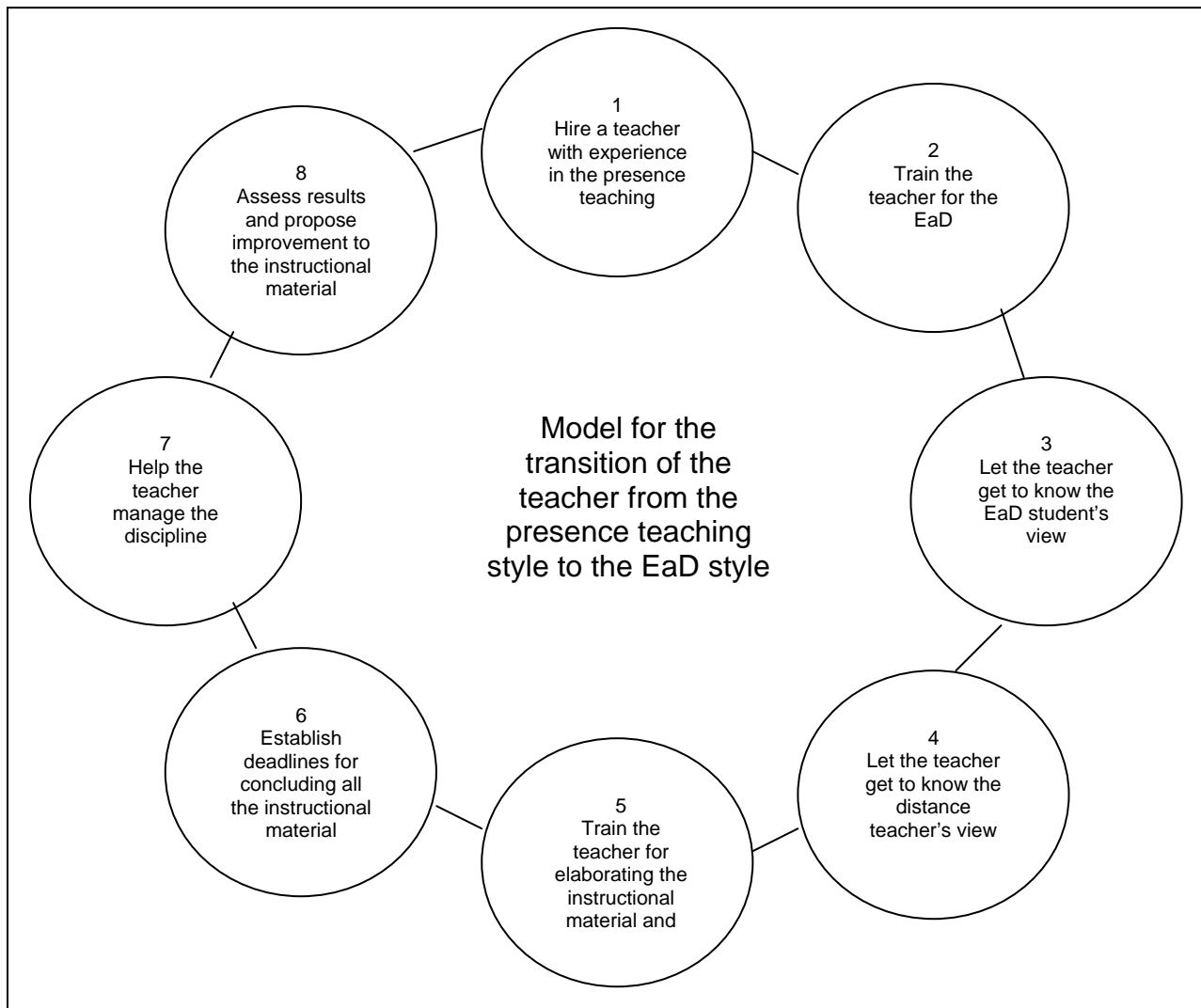
Figure 2: Model Proposed.

Figure 2 presents the stages for the teacher's transition from the presence teaching to the distance style. Item 1 presents the necessity of hiring a professional with experience in the presence style on the discipline in question. Item 2 mentions the training on EaD, an important stage for the theoretical knowledge on EaD. In items 2 and 3 we added the stages related to the practice on the functioning of a distance course, from both the distance student's and tutor's view. Stages 1 and 2 can happen at the same time. After these stages, the teacher is trained on the material production and the management of the disciplines (item 5). Established the deadlines (item 6), the teacher has the help from the whole multidisciplinary team for producing the instructional material and managing the discipline (item 7). While the discipline is in progress, the teacher and the multidisciplinary team assess the results gotten and propose improvements (item 8).

We know that distance courses are presented in the market in several different ways: semi-present course, fully distance course, tutorial course, non-tutorial course, automated course, and so on. No matter the way the course is offered, the model proposed can be adapted to assure an easier transition, making it favorable to create courses with a teaching-learning process that answers to the distance student's expectations, in an innovative, creative and motivating way. Finally, the model aims to stimulate and facilitate the autonomy of the virtual student.

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5. Conclusion

Even with the EaD growth, this style is still presented as something challenging and uncertain. The model presented reported a real situation, in which each day there is the quest for better practices and for the students' and teachers' satisfaction.

We know that the model presented does not deal with the questions of resistance against technology, the breaking of paradigms, or educational culture within the teachers who act in the presence education. The main objective was to report about the necessity of a teacher that acts in the presence teaching for "experiencing" the distance style.

We expect that through this paper we may contribute and share with the educational institutions that offer or will offer courses in the distance style.

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