SPECIAL COURSE ON DIDACTIC METHODOLOGY: AN INNOVATIVE EXPERIENCE FOR THE BRAZILIAN NAVY TEACHING SYSTEM

Rio de Janeiro – RJ – April /2012

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Category C – Methods and Technologies

Educational Sector – General Continued Education

Nature of the Paper – Description of Project in Progress

Class – Innovative Experience

ABSTRACT

The Special Course on Didactic Methodology, given in semi-attendance form, is meant for educators who are preparing for the planning, performance and assessment of teaching activities. The purpose of this paper is to present the preparation and implementation experience of the course conducted by the Diretoria de Ensino da Marinha (Teaching Department – Brazilian Navy). It is an attempt to help in the discussion about Distance Education in the country by socializing the experience obtained since the planning and preparation of didactic material up to its implementation.

Keywords: Navy Teaching System; Skills; Distance Education; Pilot Project

1. Introduction

We are currently living the *information era* with significant changes to society as a whole. Through technological transformation this information is given conditions to play a major role in the social systems and influence the interaction between the various organizations and between individuals, substantially modifying communication modes. According to CASTELLS[2] (1999), “it is the beginning of a new existence, no doubt, the start of a new era, the information era, marked by the autonomy of culture vis-à-vis the material bases of our existence” (CASTELLS 1999, p. 505)[2]

Within this context, new educational modes arise linked to the Information and Communication Technologies (ICTs), among which is Distance Education (DE), defined along the years by the many theorists, always related to the stage or generation in which it was inserted. It is worth highlighting that DE projects are presently part of the medias used by different generations, so that “...the first generation is not superseded by the second and third generations, but, in fact, continues to act alongside or in connection to those”. (PETERS, 2001, p. 32)[9]

Thus, the current perspective of using the media in DE helps enrich the learning environment and demands ongoing updating by educators. It is also possible to associate such means in the pedagogical activities and create a new space for knowledge, for the sharing of different information, to re-think and re-do the teaching practice.

The purpose of this paper is to present the experience developed by the Teaching Department of the Brazilian Navy (DEnsM) in the implementation of the semi-attendance course for educators using the Virtual Learning Environment (AVA) made possible by the new technologies.

2. Diretoria de Ensino da Marinha (*Teaching Department of the Brazilian Navy – DensM*)

According to Law n.11.279/2006 [1], the DEnsM is the main body of the Navy Teaching System (SEN), responsible for activities related to teaching, regulatory guidance, functional supervision, and specific inspection of the Military Organizations in the teaching area. SEN courses are conducted in

teaching facilities and offered in attendance or distance modes. The DEnsM organizational framework counts on a Distance Education and Education Technology Department (DEAD) in charge of planning, coordinating and controlling the implementation of DE activities in the Navy. As pedagogy specialist working in this Department and using a post-graduation study, the author had the initiative to create a semi-attendance course offering educators a set of the necessary knowledge and practices to aid them in the classroom. This proposition is based on the assumption that the professional skills that used to be demanded from an educator have been modified and this professional must now be able to handle the new challenges brought by Information and Communication Technologies (ICTs) and in the light of contemporary learning theories.

3. Special Didactic Methodology Course

The name chosen for the Didactic Methodology course "refers to the set of teaching and learning methods and techniques" (RANGEL, 2005 p.9).[10] According to this concept, a method is the learning process in the making, whereas the technique has to do with the path that must be followed.

In order to develop the course, a Work Group (WG) was created composed of pedagogy specialists working in different teaching Military Organizations in the Navy, under the supervision of the DEnsM Distance Education and Education Technology Department (DEAD), which defined the pedagogic approach of the course.

The choice focused on the approach for curriculum skills by Swiss sociologist Phillipe Perrenoud, who "proposes an inventory of the skills that contribute to redefining the teaching activity" (PERRENOUD, 2000, p.12).[8] Such inventory emphasizes the skills that are prioritized for being coherent with the new role of the teacher.

These skills have been divided into 10 broader “families” (PERRENOUD, 2000, p.14). [8]

1. Organizing and guiding learning situations.	6. Participating in school management.
2. Managing learning progression.	7. Informing and involving parents.
3. Conceiving and producing differentiation devices.	8. Using new technologies.
4. Involving students in their learning and work.	9. Facing professional duties and ethical dilemmas
5. Team working.	10. Managing one’s own ongoing education.

Table 1 – 10 New Teaching Skills

The WG has defined numbers 1, 2, 4, 8 and 10 as skills to be met by Navy educators, considering that these actually translate the new needs for the pedagogic practice. Such decision was based on previous studies. After that, one started a selection process to choose the themes that would help analyze each skill and the means to achieve it. So, it was decided that the course for the development of those skills should be divided in three areas of interest related to a theoretical concept of representative authors of each referred area.

The first area gathered major themes connected to the “Fundamentals of the Teaching-Learning Process and Learning Theories”, whose objective was the educator’s reflection based on a philosophical concept of education.

> “the Philosophy and the Fundamentals of Education help the reflection around educational theories, asking what the educational act is made of, its external and internal determining factors, its purposes and objectives; it seeks the fundamentals of the educational practice”. (LIBÂNEO, 1990 p. 26) [4]

The second area gathered major themes connected to “Didactics and Teaching Practice” able to provide the educator with an understanding of the educational process.

> “the teacher needs instruments that are both theoretical and technical so that he/she can perform his/her role as a teacher in a satisfactory way, creating his/her owns didactics, that is, his/her teaching practice in specific didactic situations, according to the social context where he/she performs”. (LIBÂNEO, 1990 p. 12) [4]

The third area gathered major themes connected to “Education-Applied Technology” to provide the educator with tools that will expand and modify his/her current forms of teaching and learning.

> “nowadays technology can provide images and summaries in a fast, attractive manner. The role of the teacher – the key role – is to help the student in interpreting, connecting and contextualizing these data”. (MORAN, 2004 p. 29) [6]

Considering the above-described areas, the curricular grid was composed of the following subjects:

Distance-Course Subjects	Didactics I - Fundamentals of the Teaching-Learning Process Unit I - Fundamentals of Philosophy. Unit II - Fundamentals of Sociology. Unit III - Fundamentals of Psychology. Unit IV - Fundamentals of Law.
	Didactics II – Learning Theories.
	Didactics III – Teaching-Learning Process Management.
	Didactics IV – School Planning.
	Didactics V – Assessment of the Teaching-Learning Process.
	Didactics VI – Education-Applied New Technologies.
Attendance-Course Subjects	Didactics VII – Teaching Practice.

Table 2 – Curricular Grid

Subjects Didactics I, II, III, IV, V and VI were offered in the distance course by means of the Virtual Learning Environment, whereas Didactics VII was offered in the attendance course in which the teacher had to give a class using the pedagogic strategies established in Didactics III and Didactics VI.

4. Didactic Design of the Course

After the curricular grid was defined, the WG became aware of the need to prepare an *instructional design* of the course to establish the stages for the development of the work. According to Filatro [3] (2004)

> “ it is the instructional, educational, pedagogic or didactic project or design that involves the planning, development and usage of educational methods, techniques, activities, materials, events and products in specific didactic situations in order to facilitate human learning from known learning and instruction principles” . FILATRO (2004, pp.55- 64).[3]

For Navy usage the name “Didactic Project” was thought of, and the following phases were developed: Review, Development (1st Stage, 2nd Stage, 3rd Stage, and 4th Stage) and Pre-Implementation (Pilot Project). Each phase highlighted the tasks that were developed to help in the subsequent stages.

A) Review Phase – collection of information on the nature of the course.

- Justifying the creation of the course.
- Verifying the target audience.
- Verifying pre-requisites.
- Selecting general and specific course objectives.
- Verifying the number of students (maximum of 30 students).
- Choosing the course mode (semi-attendance).
- Choosing the most efficient technologies to support the course.
- Verifying the necessary resources (*software and hardware*).
- Anticipating support framework.
- Anticipating maximum time needed to develop course material.

B) Development Phase – comprehends the search for information in different media. It is divided into 4 stages:

1st Stage

- Researching in Navy publications, books, magazines, newspapers, videos, the Internet, CD-ROMs, virtual libraries. Such information will be used to structure the subjects.
- Assessing the depth level of researched information in order to framework them into a didactic sequence.
- Preparing course layout, for later formatting of material in the Virtual Learning Environment (AVA).
- Choosing course authors and advisors.
- Preparing course schedule, establishing deadlines for the development of other project phases.

2nd Stage

- Selecting general learning objectives of course subjects.
- Preparing a summary of each subject and establishing hour load.
- Choosing pedagogic strategies for each subject, which must meet programmatic contents. The strategies are the activities planned to enable learning.
- Choosing support material (articles, additional texts, news reports, information sheets).
- Defining learning assessment process for each subject.
- Preparing Assessment Guides (Case Study, Group Work, Individual Work, and Forum) to assess activities developed by students.
- Establishing course duration in weeks, using as parameter student availability to study at least two hours daily, over five working days.
- Preparing course syllabus.
- Qualifying authors and advisors as to didactic and pedagogic aspects of the DE methodology and the use of AVA.

3rd Stage

- Preparing classes for each subject by authors and adapting classes to DE methodology.
- Defining the use of links, hypertexts and hypermedia.
- Defining AVA tools to be used in course.
- Checking intellectual property of texts, images, etc. and, if necessary, requesting authors' permission to use in course.
- Integrating visual communication to text and preparing *webpage* for DE (image selection and display; color adequacy; fonts, layout; and sound and video integration).
- Defining communication tools (e-mail, forum, and chat) to develop interactivity.
- Preparing Student Handbook to provide guidance on general aspects of course.

4th Stage

- Pedagogic review and grammar revision of all course-related material.

5. Pilot Project – Pre-Implementation Phase

Before the course was actually offered, a pre-implementation was conducted in the form of a pilot group. According to (LITWIN, 2001, p.84) [5] such procedure aims at "... providing the production teams elements for a first assessment and then the possibility of any adjustments or alteration of the materials". So, a pilot experience took place in 2007, with two (02) groups:

A) The first was composed of instructors (military) working in three (03) different Military Organizations:

- Centro de Instrução Almirante Wandenkolk (CIAW) - two (02) staff were selected among Officers coming either from the Escola Naval (Naval Academy) or the Curso de Formação de Oficiais (Officer Candidate Course);
- In the Centro de Instrução Almirante Alexandrino (CIAA) and Centro de Instrução Almirante Silvio Camargo (CIASC) - three (03) staff were selected from each of these centers, among the ranks, coming Navy Seaman Apprentice Schools.

The selected military were exposed to all the learning and assessment activities foreseen for the pilot Project, and were treated as actual students.

B) The second group was composed of twenty-one (21) pedagogy specialists (both military and civilian) working in pedagogic jobs in the different Navy teaching entities. This group participated on a voluntary basis, so that they would follow the course but were not obliged to do any of the learning or assessment tasks. They were asked to answer the "Subject Assessment Questionnaire" so that they could review adequacy of course language, content, methodology and support material.

Both groups received the "Final Course Questionnaire" applied to Distance courses, so that they could give their opinion about the process they had been exposed to, to help the DEAD Team assess and carry out the required modifications.

The answers to the two questionnaires showed that the Pilot Project met

the proposed objectives, and also that there was an excellent acceptance among the participants of both groups. The suggestions given by the Pedagogy specialist group regarding the subjects were analyzed by the WG and the most relevant were inserted in the course.

A positive aspect observed concerned the interactions made with the use of the tools: *chat*, forum, and portfolio which aroused great interest and participation in both groups. According to Nipper (apud PALLOF, 2009) [6] it is necessary to generate a “synchronous presence” sensation to reduce the social distance between students and create a feeling that the group is working together in real time.

The course was officially adopted in the Navy as from 2009 and up to 2012 presented the following results.

2009	**2010**	**2011**	**2012**
21 Instructors	22 Instructors	22 Instructors	29 Instructors
04 Professors	03 Professors	03 Professors	01 Professor

Table 3. List of Students that Finished the Course

6. Conclusion

The course has achieved excellent acceptance considering the number of applications by the different Navy Teaching Entities. Regarding the learning, considering the outcome of the students, one can say that the planned actions were fulfilled. The major challenge that lies ahead is to be able to eventually integrate the course to the other media while preserving the essence of the pedagogic proposition which is an innovative experience of the Navy Teaching System.

7. Acknowledgement

The author would like to thank all the members of the Multidisciplinary Team for their effort and dedication in delivering this course.

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