# Management Methodology of the mentoring of CCA in distance learning courses

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#### **ABSTRACT**

This article aims to describe, discuss and share some reflections on the methodological proposal of management of course completition assignments - CCA - of the Postgraduate course in Computing in Education, which is grounded on the underlying concepts of interdisciplinarity and transdisciplinarity that guide all the proposals of the course.

Key words: Course Completion Assignment (CCA), Research, Transdisciplinarity, Interdisciplinarity.

### 1. Introduction

It was started in 2009, at the Center for Distance Education of the Instituto Federal of Espírito Santo (CEAD / IFES), the design of the Distance Lato-sensu Postgraduate course in Computing in Education (PIE) through the Open University System in Brazil (UAB). The course opened the first class in

2010, offering 120 seats, 30 for each of the following centers in the state of Espirito Santo: Colatina, Linhares, Venda Nova do Imigrante and Vila Velha.

The course aims to train professionals / professors on the use of technologies in the teaching-learning process in a multi, inter and transdisciplinary way. In addition to fostering institutional development for the modality of distance education as well as the research on innovative teaching methodologies supported by the use of technologies. These goals are closely related to the objectives of UAB.

By defining interdisciplinarity and transdisciplinarity as part of the course objectives, understanding that both are important, and not steps to be overcome, we seek an alternative to the imposition that the only way of knowing is that produced by modern science: hierarchization of knowledgment, linearity, definitive (final) domain of the nature, fragmentation of the whole (SANTOS, 2004) etc. These concepts are very strong in training courses carried out at our institution, as part of our own background and experience, thus, one seeks a constant debate, reflection and change of views, including and even necessarily of the team itself.

The modern paradigm of knowledge, despite having been responsible for important advances for mankind, did not answer all questions and human yearnings. In the examples of Santos (2004), modern science has achieved the answer to some important questions with its technique, but humanity is not in fact achieved: world peace, the solution to hunger, the maintenance of the environment etc. Thus, a new way of knowing, a new form of science, begins (and continues) to emerge from the complexity (Morin, 2002), ie, of what is woven together (life, knowledge ...) - the complex thinking and the junction, or revisitation, of the various types of knowledge (Santos, 2004).

On the way to the increasing viability of new ways of knowing, we initiated the proposal for an interdisciplinary of curricular elements, we think of that the points of intersection between them, as we, like linking points for the actual work. That's how we all know and we build (in different degrees and views) the proposal of the of course.

In a growing action, we were also creating and viewing the proposed in the curriculum components of one another, which led us to think together about

goals, contents, activities that could be used until we reached the evaluation with common features.

Although the path to transdisciplinarity is undefined what we've chosen involves interdisciplinary even with the difficulties of thinking beyond (it suffices to recall what the word transdisciplinarity means: beyond he subjects) and even maintaining the disciplines. That is, we talk about a possible transdisciplinarity in our historical time and social locus. Conceptually, we seek to provide a transdisciplinar approach breaking established boundaries, thinking through an organizing axle that goes through most all knowledge.

Thus, we seek to achieve this goal, the importance of learning how to be-being [1] and how to do doing. Theorizing along with doing, the whole process over the management of the course. Collaboration and humility, leaving borders and divisions. Thinking always in the way of education through research. Understanding that the research, be it the professor's own research bout his/her practice or research for professor training (ANDREW, 2001a) it is the way we believe to be an organizing way to the transdisciplinar approach. For attempting to answer such matters, research aims at the production / reflection of new knowledge and thus the research becomes a special part of the course.

### 2. Research and training

We understand that the research for some aims at the generation of a new, general, organized, valid and transferable to others, knowledge, it seeks the systematic, critical and creative questioning (André, 2001b). In addition, the author completes the concept of research claiming that some focus their attention on the process of research development and the type of knowledge being generated; others are more concerned with the findings of the research, its applicability or their social utility.

For the practice of research course completition assignments (CCA) courses at distance, one goes through an organizing concept of research, rarely taken into consideration: doing research in a CCA involves as the main objective, learning. Thus, research continues in order to the construction - or reconstruction - (DEMO, 2000) of new knowledge, however, the search path

mixes to the path of one's own learning.

To Galiazzi, the research as part of learning permeates four important aspects: the reconstructive questioning that involves the power of being able to ask, learning and seeking to ask new questions and answers, the exercise of writing, reading and the freedom that "[...] each professor builds procedures that will be most appropriate to the specificity of his/her class "(2003, p. 63).

In particular in the distance education, these points are even more necessary on the methodology of the course itself, the essential elements: reading and writing skills are exercised daily by everyone involved in the process, the reconstructive questioning is an exercise for the development of this growing student development; and freedom for the construction of procedures for each professor in each course.

Based on these principles, the procedures have been being built for the mentoring of course completition assignments. Since the beginning of the course, in the view proposed in the methodology and research room until the actual step of mentoring, and we believe, to the final presentations, the structured manner, seeks to maintain the inter / transdisciplinar approach and to complete the own proposal of the course , being the structure flexible on possibilities.

## 2.1 The curricular component of Methodology and Research

CCA's work begins with the course and we can understand the CCA as a scientific activity of systematization of knowledge about an object of study, whose requirement is a mandatory requirement for the fulfillment of the Curriculum in the Graduate Program (BRASIL, 2005).

Therefore, throughout the process of the course, research and CCA were thought together. The execution, however, begins at the component of research methodology. Students begin to experience the stages of a research project, prioritizing the practice of theoretical and practical understanding of the research proposal.

The project is the main activity, whose trajectory is long and comes with all the discipline, with many comings and goings in activities with mentors. It is

individual and the final presentation is part of the final evaluation of the discipline itself.

While proposing their projects, students go beyond the theory of concepts of research, types of research, copyrights (including patents) and research methods as a basis for specific choices for the project.

At the end of the component, all students have a research project. This means a theme and a problem of interest to them, a methodological basis, the structural knowledge of scientific writing and presentations of scientific work. This step concludes with specific suggestions for improving projects and the grade of the curricular component.

## 2.2 Selection of mentors and structuring the lines of research

While the component of methodology and research happens, the CCA mentors are selected by internal applications (via a web form) in the institution, and also through public announcement.

In this first version of the course, the work included the construction of the lines of research that reflected the themes of the area. They should be general enough to encompass the interests of students and professors and should also specify areas of work. The lines have been established: Information and Communication Technology-ICT; Inclusive Education and Diversity, Learning Network, Educational Assessment, Educational Software and Learning Objects.

Each of them discussed and specified with the description of what they encompass and what research may be carried out in the end. From the first, the other classes will already have the available lines, and both, students as well as professors and mentors, will be included and restructuring proposals for research to be conducted.

## 2.3 The space for mentoring: the practice of the proposal

Professors at a meeting and arranged in their lines, had contact with the assignments of the students (projects methodology) and they chose the ones

that were in accordance with their interests having the freedom to start new negotiations with the students from the beginning of the "CCA room".

On August 9, 2010 the room was available for the Coordination of CCA Mentoring (COTCC). Students were included in the room and called to analyze the lines of research and to adequate their interest. All this could be discussed in specific forums, with the guidance of the CCA coordinator.

After that, we asked those responsible for the virtual environment to divide students into groups. Not anymore by poles, but for their mentors This was done because each supervisor could communicate with their mentorees more freely, making thereby COTCC, a single room, redesigned and adjusted to account for its specificity. This includes reviews, changes and periodic adjustments, as needs vary throughout the process.

In the profiles of the groups included: the mentor (with a tutor profile on Moodle), students, presential tutors - who still have a very important role in helping the students more personally monitoring them and their difficulties that may keep them from the process of research - and the CBT coordinator.

Mentoring tutors were also included to assist the supervisors following the production with respect to the methodological and Portuguese aspects. In the room itself, specific forums are in use for these purposes.

Briefly, the COTT room now has: news forum: used for alerts, reminders, information and advices to several students (scientific events, books available online); file with the dynamics of COTCC room with a summary of important dates and institutional CCA norms, topical files, and forums on the room - Ifes norms (and ABNT) and forum for discussion and guidance on these norms, file with the presentation of the research lines, the of the mentors per line and specificities, file with the curriculum of the mentors and an approximation to the research interest of the students (through forums); mentoring topic: forum-oriented, CCA model article, information about the Committee of Research Ethics, etc., about plagiarism. The final topic (so far) is the delivery of CCA and the follow-up (task with multiple file upload).

The mentors have kept contact with students through, mainly, forums with specific topics. It was also used ( to the delivery of a preview of the CCA),

an activity with multiple file upload, which is still subject to adjustment so students and professors get used to use, but that will come to be the site of the submissions and corrections of the CCA texts already in the latest stages.

## 3. Practices and Problems on Mentoring

#### 3.1 Practices

In a separate room in the virtual environment, the Coordination Course Room, one of the forums is specific for mentors, tutors and the coordinator of CCA to interact. It is noteworthy that students in this room are not present. On the CCA forum of this room, topics such as the issue of plagiarism in academic work, possible resources for guidance in the distance, the need for the Ethics Committee in Research among others have been discussed.

Initially, we had to insist on the use of the Moodle environment. Today mentors use, most of the time, the environment, facilitating accompanying by the student the professor and the coordination as the record set out in a defined place and is easily rescued.

The mentoring of CCA has a somewhat different organization of tutoring to which students are used to. Starting with the deadlines that in the tutoring curriculum components are in progress up to 24 hours on business days for responses. At mentoring, however, the process of maturation and research needs specific organization. Thus, mentors have up to 01 (one) week to respond to students, but they usually do it before.

The expectation is that students have a period for reading, writing and reflection in order to get used to the daily discipline needed to carry out a research. The mentors are left free to use, in addition to the forums and chat room, other possible tools, online chat with audio and / or video tools have long been used by some mentors.

At the end of a mentoring period (around 3 months) the previews of CCA were delivered, which are essential for analysis of what is being searched. The previews contain: research problem, justification, objectives, proposed methodology and the theoretical part. From this we seek to ensure that the

mentor has access to what, effectively, is being produced and can be organized in-time for the corrections.

79 previews were delivered. Only seven students did not deliver them, but they are being monitored by the coordinator of CCA and the mentors to adjust their situations. We found that the problems in 3 cases were forgetting the date (the assignment was done) and the other four cases were due to personal issues that interfered with the process and are being followed.

## 3.2 Challenges

At the beginning of the research project, initiated in the terms of methodology and ended in the delivery of the first preview, we realized that the difficulties were, quite remarkable, the scope of understanding of what is and how to do scientific research, that despite being among the goals that were proposed in the period, due to its complexity, is still in vogue as a constant objective and construction work throughout the CCA.

Another obvious difficulty is defining the research problem. The lack of maturity of the research lines which now begin their production and the incipient knowledge of the students concerning the topics likely to be embraced hamper the definition of the problem.

In developing this work, stage we find ourselves in, looking on the components already studied the theoretical and begins collecting data - whether bibliographic and / or empirical. The difficulties pervade the appropriation of important concepts to the progress of work, even if those concepts were used throughout the course, and in a scientific language, although a more didactic language is prioritized, which seeks to be accessible to all, have been some points in constant work between mentees and mentors.

Some of the most subjective issues, however, directly related to the success of the mentoring, are the ones related to the contact mentor / mentees. Relational tensions, problems of clarity, the student not following the guidelines and the lack of a work plan by the mentor are among the biggest problems. The systematic monitoring by the coordination team and the constant quest for clear

understanding and the support of the tutors are points raised to face these issues.

#### 4. Issues liable to conclusion at the time

Institutional norms and the proper course for the completion of CCA are being discussed. The presentations will be public, held at the end of the course, in order to obtain the approval of the work. They are predicted to happen after 6-7 months of effective mentoring.

The challenge of performing academic mentoring, seeking a first contact with research is great for students even more in distance courses, hence the difficulties encountered, reflected, discussed and the solutions sought. The contradictions still abound and the road is full of ups and downs, but more consistent at every step.

Although we have not closed all the settings and monitoring of the proposed mentoring of the CCA, as the course is in progress, we hope with this article to contribute to the discussion and the construction of relevant knowledge to the management of distance learning courses. These discussions allowed us to see the research in progress, a vision that goes beyond the discipline and seek new ways to articulate teaching.

Keeping a team of mentors as much involved as possible with the course - most of them who were tutors at distance or professors during the course - brings significant return on the path to inter / transdisciplinar course. The language is closer and the sharing of the same goal is enriched by the diverse backgrounds of these individuals. A intersubjectivity is forwarded: "[...] the sense of the experience of an individual as a subject, being shared by other individuals. "(Japiassu, 1991, p.136).

It is thanks to the vision inter / transdisciplinar of the course that the mentoring of CCA methodology brings together in the discussion both computing and education. The meeting of these areas and other knowledge (Nicolescu, 2000) articulated involve a different attitude. They do not fit a rigid structure or rules hiperdefined, which, however, cannot be absent whereas the actual course curriculum. This action is, in this particular way and that particular

time, defined by the people who are part of them and looking for a training of the educational professional to modify his/her future performance.

#### Notes

[1] Expression of phenomenological existential inspiration learned with prof. Dr. Hiran Pinel - Ufes

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