Didactic-Pedagogical Collaborative and Interinstitutional Organization in DE Graduate Teaching

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Abstract: This paper presents the development and evaluation of the PIT (Production and Interpretation of Texts) discipline that integrates a project called Common Nucleus Disciplines of the graduation courses in the DE (Distance Education) modality at Unesc - Universidade do Extremo Sul Catarinense, Brazil. It is about the implementation of an interinstitutional DE project among the Universities of the Catarinense Association of Education Foundations (ACAFE) System. The research was applied to 19 groups, involving 10 professors and 475 academics, registered at the second semester of 2007, in 15 graduation courses. The data were analyzed using the quantitative and qualitative approaches, which were organized in the following categories: Technological resources; Didacticism of the Professor; Education Modality and; Didactic material. The obtained results reached, in the global set, the general average of 8,11%.

Keywords: Distance Education, Learning, Collaboration, Higher education

1. Introduction

The PIT (Production and Interpretation of Texts) discipline Project integrates na interinstitutional action of the Universities of the Catarinense Association of Education Foundation (ACAFE) System for the Distance Education (DE) implementation. PIT was a cooperative and collaborative network among the institutions, which involved (1) planning of 4 disciplines to be offered in DE modality among the ones that make part of the graduate courses; (2) didactic material production, organization and planning process; (3) project development evaluation and monitoring.
2. Interinstitutional and Collaborative Planning

Distance Education, because of its characteristics, needs different teaching practices and that requires a well planned learning. According to Moore and Kearsley (2007), DE is a planned learning process which occurs in a different teaching place, demanding special techniques and instructions, communication mediated by technologies as well as special organization and administration.

That necessity brings new actions to Higher Education Institutions, especially to those which participate in associations or consortiums. There are different possibilities in several contexts. In ACAFE Systems, one of these possibilities is the DE modality in interinstitutional projects. According to Oliveira (2003), the challenge in DE is the search for references and mediation which are suitable for different time and spaces, subjected to varied contexts.

The document proposed by the DE council together with ACAFE Universities claims that the disciplines in DE modality must reflect the educational principles of the institutions involved, thus it is necessary to provide methodological possibilities appropriate to the contexts which will be developed from collaborative and cooperative work.

Implementing DE in the institutions, assuming another teaching modality together with face to face modality, DE disciplines offering is enhanced and an important advance in education is started in conformity with the changing brought by the technological innovation.

Learning and teaching, nowadays, go beyond classroom space, since the interaction possibilities using technologies as the Internet lead to a sort of different education. This way, the education of individuals who enter the University searching for processes that make them competent professionals, must be in accordance with the present complex society.

It is necessary to think of an educational practice to use the different technological resources, that is, a hybrid education proposal, based on communication, collaboration and cooperation processes. Such process will favor the learning to learn in studies, debates and productions in the collaborative and cooperative context, providing learning beyond face to face spaces.

Through this teaching and learning perspective, the use of technologies helps students to be connected to the world, that is, in touch with people from different regions, realities and education. Therefore, it is a kind of education that favors collective work and decentralization, and makes students more flexible and able to learn in different spaces with different people.

Thus, the possibility of teachers from two or more Universities meet for planning and elaborating disciplines in DE modality, provide different learning opportunities and communication spaces among the institutions belonging to ACAFE System. In other words, such a process can lead those academic communities to experience knowledge construction beyond their geographical boundaries. That changes, significantly, the concepts and pre-concepts related to production space and scientific knowledge authorship.
The directive 2.253, published by the Ministry of Culture and Education (MEC) in 2001, suggests that the Higher Education Institutions (IESs) offer some disciplines, using DE methods in the face to face recognized courses. This way, the institutions should offer students 20% of their face to face classes to be done as distance classes, since it does not surpass 20% of their total number of classes.

3. Discipline Pedagogical-Didactic Organization

In the first semester of 2007, teachers from several Higher School Institutions (IESs) met for planning the discipline and producing didactic material in the virtual and presence collaborative context. PIT discipline is worth 4 credits equals to 72 classes, being 20% of it done as distance activities, and 80% as face to face activities. Eighteen groups studied the discipline. At UNESC, a discipline is considered semi-presential when the rate of face to face activities is greater than the distance activities.

In the Computing Science Course, in the first term of 2007, the discipline was offered as 67% distance and 33% face to face classes, being the classes organized the following way: 24 face to face classes (6 meetings = 33%); 1 meeting (≈4 classes) to teach students how to use AVA (Academic Virtual Environment) and to give them some instructions about the discipline; 2 meetings (≈4 classes each) before evaluations to review content; 2 meetings (≈4 classes each) for presence individual evaluations; 1 meeting (≈4 classes) for closing and 48 distance classes (12 meetings =67%).

At UNESC, the project monitoring process counts on the effective participation of several sectors. It is under the coordination of the Course of Letras (Language and Literature Course), Pro-Chancellery of Graduate Courses, Teaching Directors and Coordinators of UNAs (Academic Units) and the Distance Education Sector (Sead). It is part of the Pro-Chancellery to make the project feasible as well as to monitor it; the Coordinators must mediate and monitor the process in their Academic Units; the Course of Letras Coordination must put the project in action in the different graduate courses at UNESC. Letras Course also designates a professor to give pedagogical support, together with Sead, to PIT teachers in distance and semi-presential modalities. Among the planned actions for the project, there are work meeting organizations, continuing education for PIT teachers and, also, report elaboration respectively.

As for the Distance Education Sector, it should provide pedagogical and technical support for the use of AVA; offer the discipline teachers continuing education; keep in touch with the other coordination of the project; monitor the process of PIT offering; take part in the evaluation process of the project together with the Institutional Evaluation Sector (Seai).

The Professor designated to monitor semi-presential and distance PIT, with Sead, organizes weekly meetings to work with the teachers. The professor is
responsible for planning with the teachers, the distance activities, verifying the results of those activities being developed by teachers and students, organizing monthly meetings to evaluate the process, presenting partial reports about the project and taking part, with Sead, in the process of preparing teachers.

The teachers of the discipline, in face to face and distance classes, use the virtual environment learning resource and digital and print didactic material, developed ACAFE System. Besides, it is also their task to evaluate the material, and make suggestions to improve it. They also evaluate the development of the process and plan, with the advisor professor, the distance activities, keeping him/her informed about the process. The teachers attend the continuing education courses provided by the Pro-Chancellery and Sead. To take part of the project those teachers got an additive in their contract of employment, referring to their participation in the DE modality.

During the development of the project some different steps were taken to prepare the teachers: (1) How to use AVA I, from February to June, 2007; (2) How to use AVA II, as face to face and semi-presential education support, in July, 2007; (3) DE preparation course, from July to November, 2007. That process continued during 2008 and will remain in 2009. The technological resources used in the project were: AVA – Virtual Environment of Learning at UNESC; Computing Laboratory; Digital and print didactic material, developed by PIT teachers from ACAFE System Higher Education Institutions, together with the teams that work on DE digital content development for the Seads at the institutions.

According to the discipline program, the didactic material content was organized in 4 units. Each format unit provides a short explanation of the content; some discussed examples and the activities to be done. The evaluation process was done through virtual activities (synchronous and asynchronous forum, on-line post activities, research and text production); presence individual evaluation and text production (summaries, reviews and/or essays).

### 4. Project Developing Evaluation and Monitoring

During the pilot project process, the didactic material was evaluated and, at the end of the semester, it was updated by the group of authors. Then, from 2008, the didactic materials, produced in the 4 disciplines were available to be effectively used in their institutions. At UNESC, 3 disciplines are about to be implemented and, one of them, PIT, is already being offered regularly. The results presented refer to the preliminary study of PIT, offered in the second semester of 2007.

The research was carried out through a qualitative and quantitative approach. The subjects were 19 groups from 15 graduate courses, 10 teachers and 475 students who were regularly enrolled in PIT discipline, out of a total of 22 groups and 730 students.
For a first analysis of the project, instruments developed by Sead, together with Seai, were used, counting on the effective participation of the teachers as well as the didactic material authors.

Qualitative data were organized and analysed in the following categories: Technological resources; Teachers’ didactic skills; Education modality; Didactic material. Quantitative data referred to the discipline content, learning evaluation, teachers’ didactic skills and content knowledge, didactic material, teacher/students rapport, methodology, self-evaluation, virtual environment evaluation.

Table 1. Investigated categories in PIT Evaluation (Source: Seai, 2007-2)

<table>
<thead>
<tr>
<th>Set of Questions/Average</th>
<th>Excellent</th>
<th>Good</th>
<th>Regular</th>
<th>Poor</th>
<th>Insufficient</th>
<th>No answer</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discipline content</td>
<td>24.70%</td>
<td>45.60%</td>
<td>17.60%</td>
<td>3.60%</td>
<td>1.70%</td>
<td>6.80%</td>
<td>7.89</td>
</tr>
<tr>
<td>Learning evaluation</td>
<td>25.50%</td>
<td>42.00%</td>
<td>20.20%</td>
<td>7.90%</td>
<td>1.90%</td>
<td>2.50%</td>
<td>7.67</td>
</tr>
<tr>
<td>Teacher’s didactic skills</td>
<td>47.50%</td>
<td>34.30%</td>
<td>11.10%</td>
<td>3.10%</td>
<td>2.00%</td>
<td>2.00%</td>
<td>8.50</td>
</tr>
<tr>
<td>Content knowledge</td>
<td>64.20%</td>
<td>24.60%</td>
<td>5.90%</td>
<td>1.50%</td>
<td>0.80%</td>
<td>2.90%</td>
<td>9.09</td>
</tr>
<tr>
<td>Didactic material</td>
<td>34.90%</td>
<td>46.40%</td>
<td>14.20%</td>
<td>2.70%</td>
<td>1.10%</td>
<td>0.60%</td>
<td>8.24</td>
</tr>
<tr>
<td>Methodology</td>
<td>46.90%</td>
<td>35.10%</td>
<td>11.80%</td>
<td>2.30%</td>
<td>1.70%</td>
<td>2.10%</td>
<td>8.52</td>
</tr>
<tr>
<td>Teacher/students rapport</td>
<td>38.70%</td>
<td>34.90%</td>
<td>15.40%</td>
<td>3.60%</td>
<td>2.80%</td>
<td>4.50%</td>
<td>8.16</td>
</tr>
<tr>
<td>Self-evaluation</td>
<td>34.00%</td>
<td>45.60%</td>
<td>14.80%</td>
<td>2.70%</td>
<td>1.20%</td>
<td>1.60%</td>
<td>8.21</td>
</tr>
<tr>
<td>Virtual environment of learning (AVA)</td>
<td>28.50%</td>
<td>38.40%</td>
<td>19.30%</td>
<td>7.60%</td>
<td>5.20%</td>
<td>1.00%</td>
<td>7.56</td>
</tr>
<tr>
<td>Global result</td>
<td>35.90%</td>
<td>40.20%</td>
<td>15.30%</td>
<td>4.20%</td>
<td>2.30%</td>
<td>2.10%</td>
<td>8.11</td>
</tr>
</tbody>
</table>

Results show that the teacher’s content knowledge had the highest average (9.09%). This factor contributes to all the other items, as it is essential to a discipline development. The teachers’ didactic skills got a lower average (8.5%), therefore, it can be understood that the content knowledge does not determine teacher’s didactic skills success.
In the qualitative analysis, some students’ comments contribute to understand the problems in teachers’ didactic skills category which are: improve group work; make contents more meaningful; more on-line conferences; audio and video use; diversified activities; prior on-line classes schedule presentation.

“If DE is an inevitable tendency, it is necessary mainly to improve group work techniques.”

“A more dynamic method, like a conference (chat), would help together with other resources like voice, etc.”

“The activities do not challenge students to participate; there should be more diversified activities.”

“The schedule should be presented before the on-line classes, so that we can understand the activities…”

The average of the Methodology adopted for the discipline was 8.52% which was approximate to the teachers’ didactic skills average. Thus, it is important to mention that the methodology is discussed during the meetings for PIT continuing teachers’ education what shows that collaborative work and experience exchange qualify teachers’ work, especially in innovative projects. And, therefore, the approximation of those results show that continuing teacher education is really necessary.

The results for Content category show that some students do not still understand the importance of that content to their success in the course as well as in their profession, resulting in the average 7.89%. Maybe, it is related to the fact that the discipline is offered in the first terms of the graduate courses, moment in which students have just entered the university and are still not aware of the importance of being proficient in reading and writing, as one of them said:

“I do not believe the content studied will be worth valuing either for my professional or personal life.”

The didactic material produced by ACAFE system as interinstitutional model is presented in digital format (discipline site) and print version, available in the virtual room. The evaluation for this item (8.24%) was very good and at the end of the semester some changes were made, according to teachers’ suggestions. Students’ citations about didactic material reveal their different levels of knowledge related to the discipline, that is, some of them consider the content advanced, others would like to deal with a more improved language:

“More grammar.”

“I think the content is difficult to understand, it could be a little clearer and the examples should be more specific.”

“The content is too advanced for first term students.”

“I think the discipline handout could use a more improved language for higher education students.”

As for the teacher-students rapport the average (8.16%) was global, does not present any evident problems, considering the qualitative analysis, regarding learning. Even though, the sum of the other items – Regular, Poor and Insufficient is 21.8%, which deserves a especial attention by the teachers.
The Learning evaluation was 7.67% in which 67.5% of the students considered it Excellent and Good. Considering the different levels of knowledge presented by students, as it was said before and the face to face / distance modality educational context of the discipline, that average can be seen as good performance indicative. The improvement of those results will occur together with the improvement of the other factors, including technological resources. In the qualitative analysis, The Education Modality category shows that most difficulties faced by students occurred during the first distance activities, according to the following citations:

“I had many difficulties, but, maybe, it is not because the new learning system, but because my lack of knowledge about it.”

“It was difficult at the beginning, since I had never studied that way before. It is a new teaching system and new things are usually difficult at the first moment.”

Some more comments, concerning the modality from students who had studied in the conventional system all their school life:

“As it is a new education modality in the institution, it is necessary to instruct students better about how to use the tools and how to participate in the process.”

“I complained before the classes, but after learning about reviews, summaries and cohesion, my performance got much better.”

The research also reveals that there are still students who have limited access to resources outside the university which can make learning process difficult. About the Virtual Environment of Learning, both qualitative and quantitative analyses indicate it is necessary to continue developing tools and adding new information resources to it (AVA). The environment used in the institution (UNESC) is the LearnLoop, it has an open code and has been being developed by Sead, together with the Information Technology Department (TI) from the institution. It seems that open code environments contribute to the area development and can be organized according to the courses pedagogical and administrative structures as well as their respective disciplines. The following students’ citations refer to Technological Resources category:

“AVA permits an easier access to the teacher.”

“I am content with AVA.”

“The access in some classes was difficult because there were not enough computers for the number of students, so learning did not happen the way it should. Parla took a lot of time to give answers back, making communication difficult between students and teachers.”

“AVA is a little slow, group work is difficult. Navigation should be more accelerated to make it better.”

The evaluation of this category also indicates difficulties for students to publish their works; slow navigation during synchronous classes; problems with some lab machines during on-line classes.

In DE, students need, among other characteristics, to have more autonomy and discipline in the studies. Despite all the difficulties mentioned, students presented a good Self-evaluation. The average (8.21%) shows there was an important
participation in the discipline and reveals that students were motivated and involved in the studies.

5. Concluding Remarks

The research results indicate a promising future for this kind of projects. This project gave the academic communities from ACAFE Institutions the opportunity to experience knowledge construction beyond their geographical boundaries, providing different kinds of learning and enlarging interaction spaces. With that project, a number of pre-conceptions related to scientific knowledge production have been changed significantly and the construction of a virtual learning community has been made feasible in ACAFE system.

The didactic-pedagogical organization has proved to be efficient in spite of its complexity. This factor can occur due to the extension of the project (institutional and interinstitutional) where several sectors and many professionals from different areas are involved. On the other hand such complexity contributes to enlarge the institutions and their teachers’ educational actions.

Regarding teachers, their continuing education deals with technological resources, digital didactic material use, methodological innovations, reflection on their practice and knowledge sharing. As a result of this, qualitative changes can be noticed in the teaching process of face to face and distance disciplines. During the discipline development process, whenever it is necessary, teachers are monitored and advised by Sead pedagogical team at the institution where teachers’ education is understood as a continuing process which goes beyond basic and higher education, and even besides any other short term courses. (Santos, Giacomazzo & Fiuza, 2008).

A work team formed by the discipline teachers was organized and their decisions strongly influence the contents of the discipline, since they -the contents- are intensively discussed and contextualized. The group is continually exchanging experiences and developing methodologies for content and activities teaching in distance classes. As for Sead there is the incentive to diversify the use of tools which are available at AVA, as well as to offer teachers continuing improvement courses, including the ones involving knowledge, practice and use of technologies.

The instruments used to evaluate the project, and their application together with Seai were significant to give results and analyses credibility. It is important for the project success that different professionals and sectors evaluate it, so that the whole process is understood and the advances as well as the limitations can be pointed out to direct the necessary modifications.

Concluding, the study shows that the use of technologies in education, especially in distance modality should be thought with the methodological processes, the materials, the teachers’ education, the monitoring and the process evaluation. Therefore, all the developed practices and projects are objects of
scientific investigation and must be shared with the academic community, aiming not only at being published as scientific production, but, also, at exchanging the experience with other institutions besides ACAFE System.

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