Teaching practice in the Distance Education: an analysis of the competences required

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Abstract: With the advent of the new technologies and its multiple possibilities of use, it is verified that some institutions are starting to offer educational programs by distance. UFSC is one of the institutions that had adhered to distance education with the incentive of UAB project, since 2005. However, to teach in virtual environment requires a specific set of competences - knowledge, skills and attitudes - of the teacher, and the objective of this paper is to identify them, through an applied, qualitative and descriptive study of case research. The collection of data is documentary, bibliographical and through structured interviews. The results of the study indicate that the perceived teacher’s role in the distance education is of mediator of the teaching-learning process, where had been set 34 competences, being 16 techniques (knowledge and skills) and 18 behavioral ones (attitudes). These competences were distributed in the three identified moments of the teacher’s performance that are: the contact with the student, the contact with the tutor and the production of didactic material.

Keywords: competences. teachers. distance education.

1. Introduction

The universities, along their course, are influencing and being influenced by the environment where they are inserted. The advent of new technologies and their several possibilities of use had pushed these institutions to follow always ahead of its time. Thus, to meet this need, it appears that many institutions are beginning to offer distance education programs.
This category of education presents features that differentiate from the conventional education. According to Moore (cited by KEEGAN, 1996) the conventional education is formally applied in the classroom, with instructions taught in schools, colleges or universities, where teachers and students are physically present at the same time and in the same place, while the DE (Distance Education) is defined by Moore and Kearsley (1996) as the planned learning that generally occurs in different places through teaching and performance comes from special techniques in the design of the course, special instructional techniques, special methods of communication through electronic, as well as a special organization and administrative arrangements.

Regarding to the conventional education, being more known and widely used in all layers of society, people are just more familiar, where the dependence of an instructor, to attend a classroom, to have a pre-established time, to emphasize the emotions, to stress the body language, to make people live with each other face to face, resulting in a better exchange of experiences. To provide these advantages, the DE uses the technology.

The UFSC is one of the institutions that joined to the methodology of distance teaching. Established in 1960, the Universidade Federal de Santa Catarina (UFSC) consolidated itself as one of the best institutions of higher education in Brazil and Latin America. It is in the centre of many actions in the field of research and scientific production, in interchanges and projects of academic mobility and in the constant exchanges of experiences with researchers and organizations with high competence. With the encouragement of a project of the Open University, since 2005, the UFSC has extended the quota of students achieved through the distance education.

Thus, this paper aims to identify the competences required of the teachers for their action in DE, specifically in the distance graduate course of Administration of this institution.

2. Distance Education

For some time, the use of the resources of information technology in education, training and information has been away from the discussions purely theoretical and becomes reality. The technological resources are occupying variable spaces in public and private companies, though, most of the time, so poorly defined or purely promotional, as highly valued aspect in institutional messages. However, do not seem remaining doubts about the potential for using these tools in the process of education.

Anyway, the use of new technologies in education, training and information has been received, often, with some reservations. The concern is based on the fear that there is not a compromise between the new technology and the educational objectives of the traditional school, if we suppose that solutions
like these are as an universal elixir, capable of solving all the ills of education, training and information (Klaes, 2005).

In the same way, is Peraya (1994), which reports that there is a new vision (developed from 1974), which is substantially influenced by social and cognitive sciences, according to which the Education System is now more focused on learning, instead of the traditional focus on teaching. Knowledge has been now considered as socially built by the action, communication, information and reflection as well as involving the learners.

The implications for education, training, information and professional training are enormous: the learning can be independent of time and place, beyond available at any stage of life. The context of learning will be technologically much more rich, the learners or students will have access not only to a large amount of media, also a large amount of information sources (PERAYA, 1994), leading to a real "communicational opulence", according to the author.

The growth and diversity of the distance education are enormous – the number of types of individuals who learn outside the traditional classrooms the variety from who is providing this service and the variety and effectiveness of new technologies that serve as tools for teaching. The distance education is becoming increasingly global, creating an enormous amount of new alliances with the association of traditional educational institutions with companies, governments and international organizations to provide and use the distance education.

The Ministry of Education (2005) defines the distance education as educational mode in which the mediation didactic-educational in the processes of teaching and learning occurs with the use of media and information and communication technologies, with students and teachers developing educational activities in several places or times.

This way, the evolution of electronic media can be considered one of the most responsible for maximizing the use of DE systems. As the attendance to the student has become possible in any area of the world, since he has access to the technology and, especially, in “real time”, the use of DE in educational programs has increased considerably over the years.

We realize empirically that there is a difficulty in the use of DE, in relation to the fear to try something new. This is part of the line of study by various authors both in education, psychology, and administration, because usually the new requires of teachers and other professionals involved with education a change of attitude. That is why the use of technology in education, can often be misinterpreted because there is still a created culture that gives benefit to the conventional education (SANCHO, 1998).

As the distance education broadens its scope and use new tools for delivery of teaching, the concerns about its effectiveness tend to grow. The programs of the distance education still has a lack of credibility in many countries and the students who make these courses often have difficulty in obtaining recognition of its efforts (Klaes, 2005).
Distance learning differs from conventional teaching primarily in isolation and in a greater self-discipline required of their students. Because of these characteristics, it is crucial to ensure that the distance education provides adequate support to students and interactivity.

While the programs of distance education have a reputation for being far more effective in relation to costs, the study has shown that this is true only in cases where enrollment reached high levels in relation to expenses and rates of completion, according Capper (1990).

Vergara (2006) argues that the history of pedagogy, which has focused in the presence teaching, emphasizes the importance of teacher-student relationship in the process of knowledge construction. According to the author this is one of the issues that emerge during the discussion about DE, and it is commonly placed as a limitation. The author argues that this relationship is true, but in a different way. The relationship involves, besides teachers and students, tutors, monitors, and others involved in the process.

According Belloni (2006), the role that the teacher takes the DE is the student’s partner in the construction of knowledge, that is, there happen the teacher’s transformation of an individual entity in a collective entity, where the focus will no longer be teaching to be learning.

Therefore, the author draws attention to the need for a teacher training focused on those needs, which prepare them for technological innovation and its pedagogical consequences, and for continuing education.

For that reason, the staff of teachers must be prepared for this change in modality of teaching. The profile of the student is also differentiated and this entire context requires other competences from the teachers who do not apply to the traditional model.

The teaching activity is currently, according Delors et. al. (1996), a lonely activity, as far as each professional must face its responsibilities and professional duties, that is, each teacher is largely responsible for their own training.

However, these competences to be developed, can and should be developed through programs of development of people, that besides the issue of improvement of the professional, offers benefits to the University through the management and investment of the competences and knowledge, as Dalmau (2001).

It is understood, in that case, competence as expertise – which are the knowledge and skills and behavioral competences – which are the attitudes.

Thus, Leme (2005) defines competence as the sum of technical competences and behavioral competences, as shown in Table 1 below:

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Skill</th>
<th>Attitude</th>
<th>Technical Competence</th>
<th>Behavioral Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>To know</td>
<td>To know how</td>
<td>To want to do</td>
<td></td>
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</tr>
</tbody>
</table>


Table 1 – Discrimination of Competences
Source: Leme (2005, p. 18)

Thus, Melo et. al. (2006) claim that teacher training should be part of a broad and consistent policy of valuing education, where the responsibility must be shared by governments, educational institutions and society, which receives the biggest benefit.

3. Methodological Procedures

With the aim of identifying which are the competences required of teachers, it was decided to conduct an applied research with qualitative basis, for the reason that intends to generate knowledge to practice application, addressed to the solution of specific problems.

This work was developed through a case study descriptive, for reasons of accuracy and impartiality, because it is necessary for the researcher to have a complete impartiality conduct.

The process of determining the course to be studied and people interviewed for the survey was intentional. According to Silva and Menezes (2000), the cases chosen must represent “the proper trial” of the universe of research. To that end, the project chosen to be studied would meet the requirements that were stipulated by the author: linked to a renowned institution, to allow access to information. On the other hand, the choice of interviewees reached the criterion of being involved with the course in examination, being part of the managing Commission or professional of the institution expert and working with DE.

According Lakatos and Marconi (1990) regarding to the means, the characteristics are a documentary research by the source for data collection consisting of primary sources and internal documents, virtual and physical files with data about the course, institutional website, reports and other documents.

For this work were collected data through four major sources: direct observation, documentary analysis, literature review and structured interviews. There were conducted 10 (ten) interviews.

The data analysis was done through the use of discourse analysis of the interviews and the establishment of relations between the documentary analyses, information obtained in interviews and the observation, correlating these relations with the theory. Thus, the analyses were not restricted to the eyes of the researchers.

4. Results
Analyzing the interviews conducted in confrontation with the theory, we realize that the teacher carry out in DE in different ways depending on the addressees with whom he is interacting. Each type of interaction involves a specific set of competences, which may or may not coincide.

The interviewees were questioned about the role of the teacher in the DE and what competences they considered necessary for the performance of teachers in such educational modality.

Thus, considering the concept of competences as the set of technical competences (knowledge and skills) and behavioral competences (attitudes), the competences mentioned by respondents were grouped following this classification.

Of discourse analysis performed, was identified that the teacher acts mainly in three stages. The first moment is the contact with the student. That happens in this way, during the recording of classes, in video conferences, seminars and in other times or virtual presence.

The second point is the contact with the tutor. This set of competences relates to the interaction with the teacher with the mentoring. This is in the planning and the recording of the classes, video conferences, and seminars, training of the tutors, solution of questions and drawing up tests.

The third time for action is in the production of didactic material, which is composed of the text-book, exercises, virtual or presence activities, in the preparation of seminars and preparation of tests.

From interviews and the comparison with the studied theory, were listed 34 competences required of teachers who are willing in the table below.

<table>
<thead>
<tr>
<th>Technical Competences</th>
<th>Behavioral Competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of content</td>
<td>To be accessible</td>
</tr>
<tr>
<td>Knowledge of technology</td>
<td>To motivate</td>
</tr>
<tr>
<td>Communication skills (oral /written)</td>
<td>Planning of time</td>
</tr>
<tr>
<td>Ability of using the technology</td>
<td>Knowing how to listen</td>
</tr>
<tr>
<td>Pedagogical domain</td>
<td>To be available</td>
</tr>
<tr>
<td>Knowledge of the distance modality</td>
<td>Clarity</td>
</tr>
<tr>
<td>Pragmatism (to link theory and practice)</td>
<td>Initiative to participate in the process actively</td>
</tr>
<tr>
<td>Organization</td>
<td>To identify the needs of students</td>
</tr>
<tr>
<td>Capacity for synthesis</td>
<td>To identify capacity of students</td>
</tr>
<tr>
<td>Knowledge of the best sources for research</td>
<td>Pro-activity</td>
</tr>
<tr>
<td>Construction of the lesson (of the learning)</td>
<td>To build relationships, links</td>
</tr>
<tr>
<td>Knowledge of the system of mentoring and its attributions</td>
<td>To instigate the research</td>
</tr>
<tr>
<td>Ability to work in teams with mentors</td>
<td>To be open for discussion</td>
</tr>
<tr>
<td>Capacity of detailing</td>
<td>To identify the capacity for self-learning of the student</td>
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<td></td>
<td>To identify the student’s readiness for</td>
</tr>
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Planning technology
To take the student’s competences in the construction of a learning scenario
Willingness to change

Table 2 – Set of competences
Source: primary data

These competences were associated with each moment of the performance of teachers, again based on interviews, and in contrasting with the theory. Many of these competences occur in more than one moment, but in different levels.

Regarding teacher performance in the contact with the student, the competences identified were:

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<tr>
<td>Oral communication skills</td>
<td>Knowing how to listen</td>
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<tr>
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<tr>
<td>Construction of the lesson (of the learning)</td>
<td>To identify the student’s readiness for technology</td>
</tr>
<tr>
<td></td>
<td>To take the student’s competences in the construction of a learning scenario</td>
</tr>
<tr>
<td></td>
<td>Willingness to change</td>
</tr>
</tbody>
</table>

Table 3 - Competences required in the contact with the student
Source: primary data.

So, at the time the teacher works in contact with the mentoring, competences identified are:

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<tr>
<td>Ability of using the technology</td>
<td>Clarity</td>
</tr>
</tbody>
</table>
Table 4 - Competences required in the contact with the tutor
Source: primary data.

Finally with regard to teacher performance in the production of educational materials, it has the following provision:

Table 5 - Competences required in the production of teaching material
Source: primary data.

It is observed that under the technical competences, they diverge little between the moments of the teacher’s action. Competences like the knowledge of content, of the technology, of the distance modality and of the best sources for research, the communication skill, pedagogical domain and the organization are required in the three stages. While the pragmatism, the capacity for synthesis and of detailing, for example, are more specific. It is observed that these similar technical competences with regard to, mainly to the domain of the teacher on the content taught and the strategies of teaching.
On the other hand, under behavior, there is greater variation between the competences. It should be noted that attitudes like to motivate, pro-active, the identification of the capacity for self-learning of the student and willingness to change are common to all three times. According to the interviewees and with the theory, these competences are directly related to the distance mode and the change of the presence paradigm.

5. Conclusion

The distance education will be formally installed in the system of Higher Education in 50 Public Institutions of Brazil (MEC, 2006) and because it is something new and recent, it demands still much effort, work, organization and commitment of all involved in the process. Only like this it is feasible to enforce operating conditions with quality and credibility.

It is known that there is a paradigm shift and in the mental model by the teacher for his performance in the DE. This change requires from the teacher the development of competences other than those traditionally used in the presence model. Regardless of the modality of teaching, the teacher moves from owner or from transmitter of knowledge to mediator of the teaching-learning process and, especially in the distance mode, acts as a motivating and incentive for this process.

As a result, in response to the objective of identifying which are the competences required of teachers for their performance in the DE, it has came through a list of 34 competences, with 16 technical competences (knowledge and skills) and 18 behavioral competences (attitudes).

These competences shall be subdivided in three moments of action of the teacher in DE, that is: contact with the student, contact with the tutor and production of didactic material. The technical competences are distributed more uniformly between moments of action, while the attitudinal issue shows more variation, remaining only in those that are directly related to the distance mode itself.

The identification of these competences allows the teacher to know their need for development in this context. From this list of competences can be measured in degrees how much each one is required, and then evaluate the teacher performance, for example.

Finally, so that there could be an effective policy for the development and teacher training, essential for the management of people in these institutions, the identification and analysis of the profile of competences required is essential for the training of those can be targeted more effectively.

References

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