Process mapping of tutor’s function

Marília Martins Cavalcanti¹, Juliana Tatiane Vital², Gilberto de Oliveira Moritz³, Marcos Baptista Lopez Dalmau⁴, Alexandre Costa Marino⁵, Rogério da Silva Nunes⁶

Abstract:

The current landscape of higher education in Brazil has a pent-up demand. Given this context, the Brazilian government created a national system of higher distance education. The UFSC is one of the participating institutions offering undergraduate courses in Business Administration in the distance mode. In the process of distance education there is the figure of the tutor, which has a very important role to guide the process of student learning. Thus, the process that compete to tutor the distance must be known and mapped, with the objective of organizational effectiveness. Thus, this article aims to map the general process of the function of the distance tutor travel the distance of Directors UFSC. Research can be classified as applied, case study, descriptive and qualitative.

Key words: Distance learning, Tutor, Process mapping

1 Introduction

Currently, the need for further training, combined with modern style makes thousands of people choose to study at a distance. Distance learning (DL) is a mode of education where students and teachers are in different places for all or most of the time they learn and teach (MOORE; KEARSLEY, 2007). Establishing a distance education course requires high investment in professional people, knowledge, teaching materials, technology infrastructure and support services and maintenance of same, including the poles or centers of care.

Unlike present teaching, the teacher is no longer solely responsible for the teaching process and starts to divide it with a multidisciplinary team: content and teacher trainers, professionals in information technology, communication, and methodology of distance education, instructional designers, processes managers and mentoring for monitoring students.

In regards to mentoring, Moore and Kearsley (2007) point out that tutors who maintains contact with students are the eyes and ears of the system. Therefore, they must be well prepared to do their job, knowing the background of the whole process of distance learning.

With the provision of distance education courses at Open University of Brazil Program, the Brazilian Federal Government creates a new role in public universities: the tutor. In this context, this article aims to demonstrate the functions of the tutor in distance learning and to describe the processes that fit with this new function, not yet formalized in public educational institutions.

¹ Gr., UFSC, mariliacavalcanti@ymail.com
² Msc., UFSC, julianatvital@yahoo.com.br
³ Dr., UFSC, gomoritz@cse.ufsc.br
⁴ Dr., UFSC, dalmau@cse.ufsc.br
⁵ Dr., UFSC, marino@cse.ufsc.br
⁶ Dr., UFSC, rogerionunes@hotmail.com
2 Theoretical Foundation

2.1 Distance education

Flinck (1978 *apud* ARETIO, 2002) argues that distance education is a learning system in which the actions of the teacher are separated from the actions of the students. They are guided by materials developed by teachers and have the opportunity to communicate with tutors by technological means.

For Peters (1973 *apud* BELLONI, 2006), distance education is a method of transmitting knowledge, skills and attitudes that is rationalized by the application of principles and organizational division of labor, intensive use of media and techniques, especially with in order to reproduce material from high-quality education, which makes it possible to instruct a larger number of students at the same time, wherever they live.

Thus, we can conclude that this mode of teaching requires special techniques to create the course, and develop instruction and communication through various technologies and organizational arrangements and special administratives (MOORE, KEARSLEY, 2007).

Moreover, according to the references for quality distance education courses of the Ministry of Education, an institution that offers a distance course should have centers for student assistance, including in-person meetings (BRAZIL, 2003). The centers of student support are scattered in the area covered by the institution.

Regarding communication, Belloni (2006) points out that in DL, the interaction with the teacher is indirect and must be mediated by a combination of the most appropriate means of communication, which makes this type of education much more dependent on media support that conventional education.

In this context, much of the quality of the course conveyed at distance will depend on the specific serving system adopted, so that the decisions of leaders about the technology purchase exert a significant effect on the cost of a compatible institution and its programs (MOORE; KEARSLEY, 2007).

Other important tools in distance education courses are printed media: the traditional textbook, workbook or study guide, usually to study without the presence of the teacher. According to Moore and Kearsley (2007) "almost all the courses of distance education are using some form of printed text, regardless of any other technology to adopt."

ARETIO (2002) agrees, saying that print media remains the basic means of transmission of learning content, and recent estimates indicate that at least some 80% of learning is based on material printed with some technological support.

In addition to printed material, the video-lesson is an application that uses the visual language of film and television, with content that follows an educational format for teaching purposes which can be stored in different formats (SPANHOL, 1999). Moore and Kearsley (2007) claim that it is always desirable to have at least one appropriate technology recorded primarily for the delivery of content and another one for compatible interaction between students and instructors.

Videoconferencing is a tool that provides direct communication, and the parties can see and hear each other, allowing a high degree of in person contact (ARETIO, 2002). For Willis (1994 *apud* DALMAU 2003, p.125) videoconference is "a teleconference using video technology as a primary communications link".

Among the resources available on the Internet, the use of virtual environments (VETL) stands out for teaching and learning in Distance Education. Santos (2002 *apud*
URIARTE, 2003) defines it as a place that allows the realization of the learning process, it is the space where the resources and tools are organized and the content and activities are available to students by teachers.

Gomes (2001 *apud* URIARTE, 2003) also conceptualizes the VETL as the technological environment in cyberspace that allows the teaching-learning process through mediation between students and a group of teachers or other geographically-dispersed staff. It is presented in the form of portals, databases, virtual libraries, distance education courses, museums and more.

However, the best available technologies by themselves do not heal a distance course. According to Moore and Kearsley (2007), people needed to build and operate a distance education course are: experts in various disciplines, professionals to create instruction, teachers to teach the courses created, specialists in student support; technologists and technicians who install and maintain communication systems and administrators, such as program directors, course managers and local coordinators, assistants who process registration, evaluation marks or materials; leaders as rectors, presidents and other executives.

Peters (1983 *apud* BELLONI, 2006), defending the idea of division of labor in Distance Education, states that each expert or team of experts, is responsible for a designated area in each phase of the complex process of design, planning, development and distribution of courses and materials. In this context, the role of the tutor in distance education will be explained.

### 2.2 Mentoring

Moore and Kearsley (2007, p.17) noted that the normal procedure in a systemic approach to distance education is that, after the courses are created and distributed through technology, students are assigned by the learning organization to instructors, referred to as mentors or tutors, who interact with them to provide individualized instruction based on the materials produced.

Aretio (2002) stresses that for there to be education there must be full communication, two-way, with appropriate feedback between teacher and student. This Communication, can be performed by the tutor at a distance, which is the agent that has direct and frequent contact with the student.

Moore and Kearsley (2007) point out that tutors who maintain contact with students are the eyes and ears of the system. The authors emphasize that the tutors have, or should have, a truly intimate understanding of a small group of students, their progress, their feelings and their expectations for the course.

Tutors should be pretty familiar with the course, the practices and standards of evaluation, as well as content worked by teachers (RUMBLE, 2003). In Distance Education it is essential to promote interaction between students and the tutors, offsetting problems inherent in the process of teaching by this modality, such as physical distance and the possible difficulty - cognitive and motivational - the students might face (OLIVEIRA, Santos Dias, 2005).

A major function of the distance tutor, according to Rumble (2003) is to guide students with regard to equipment and appropriate teaching procedures, and to motivate them. For this, the tutor will have to be knowledgeable about the subject they oversee and dominate appropriate techniques for the development of various forms and styles of mentoring (ARETIO, 2002).

Gonzalez (2005) says that it is the tutor’s job to mediate the development of the course. He who answers to the questions presented by students with regard to the
subject content offered. He also mediates the participation of students, encouraging them to do their jobs, and evaluating the participation of each one.

Among the options presented by Rumble (2003), by planning and organizing the student support system, we can highlight the choice for this service at a distance or in person. In most distance education programs there are in person meetings, through mentoring that promote socialization, integration and take advantage of teaching opportunities that the group offers (Keegan, 1986 *apud* ARETIO, 2002).

With regard to mentoring, this can be understood as any action or instrument that overcomes obstacles in distance learning without the presence of the tutor offering the student a control and feedback on their learning (CIRIGLIANO, 1983, ARETIO, 2002).

Mentoring by mail is the most routine evaluation of distance learning, filling two possible functions. The first is to comment on the work of students and, second, in evaluating them (RUMBLE, 2003, p.72).

Finally, Rumble (2003) states that the geographic location of the tutors has no importance. In the case of small systems of distance learning, it is possible to be located at the university campus, which allows closer contact with teachers. In fact, in some of these systems, or in courses comprising few students and teachers, writers can also be tutors.

However, it would be better to designate local tutors and counselors when you want more direct contact. The largest distance learning, which has many students in each class, there is little chance of finding the central staff in sufficient numbers to provide tutoring to all students. It is necessary in this case, hire tutors at distance.

It is up to managers of distance education to provide training and initiation of the tutors, as well as the planning, organization and control of their work (RUMBLE, 2003). This factor is important with regard to consciousness of goals that the tutors should have about the course.

Considering the range of professionals involved in distance education courses, the mentoring must be clear about its function, and its work processes well defined, thus avoiding overlapping roles in distance education courses.

### 2.3 Process

All major work done in companies is part of a process (Graham and LeBaron, 1994). Thus, to ensure that all activities are implemented, companies create work processes. "In designing, the most frequent process is any activity or set of activities that takes an input, adds value to it and provides an output to a particular customer" (Gonçalves, 2000, p. 7).

Thus, the definition includes not only the tasks to be performed, but also the number of operators, the distribution of work between them, the technology, the performance indicators and expected results. This also binds to the notion of method of work (Lowenthal, 1994 *apud* Gonçalves, 2000, p. 8).

The process can also be seen as a workflow that should be done in a logical sequence that enables the coordination of activities of the company. So the business processes are coordinated activities involving people, procedures and technology.

#### 2.3.1 Understanding the processes
Every organization must know its workflow, according to Cruz (2000) disorganization and inefficiency of the processes are related to the fact that most people do not know what a process really is.

To be able to define and organize processes, a company must first see them in parts. The process should therefore be seen as a set of interdependent parts, these parts can be broken down into processes, subprocesses, activities and tasks.

Processes are sets of activities that typically involve more than one function in the company (CRUZ, 2000). The processes can be divided into sub-processes. Thus, according to Harrington (1993), the subprocess is the part that serves a specific purpose, is related to another sub-process and contributes to the process to which it belongs. An activity “is the set of procedures that must be executed to produce a particular result” (CRUZ, 2000, p. 42). Finally, the lower part of the process is the task. Harrington (1993) reports that the task is a specific action that is usually related to how this should be done.

Knowing every effect that the process causes there is more stake in the results expected from each party in addition to facilitating the understanding that each party must be tied.

2.3.2 Process Management

According to Gonçalves (2000, p. 16), "understanding how the processes work and what are the existing types is important to determine how they should be managed to achieve the maximum result."

After understanding the business processes, they must be surveyed and mapped, allowing the company to view and standardize all their actions. To Gonçalves (2000) the success of process management is linked to the effort to understand and standardize business processes.

Managing processes, to Alvarenga Netto (2004), means to identify them, get their inputs and outputs, list them and identify all the resources necessary for their operation, establishing performance indicators for their monitoring and control. Process management is based therefore on the basic elements of processes: tasks performed, meetings, decisions making, goals met and results produced by the process (Lipnack, 1997).
Process management allows for greater transparency in the activities to be performed, and providing an easy standardization of these, making the results similar and setting up a unique value.

According to Campos (2004), management should be focused on monitoring the outcome of processes and comparing them to the goals set, because it is through this monitoring that improvements and corrections can be proposed. Thus, it is important to create and set models of performance monitoring processes. Kaplan and Norton (2004) recount that the systems of performance measurement of business processes considerably influence the results obtained in many different hierarchical levels. Garvin (1998) states that every managed process should include measurement actions and performance-setting of the organization.

After mapping all the processes of the organization, it is recommended that they be managed in an integrated manner. This requires the company to identify the variations in the process, allowing it to focus efforts with regard to continuous improvement and, therefore, organizational efficiency.

3 Methodology

This research is characterized as being applied, since this is research that provide information immediately available. Moreover, it is classified as descriptive, according Triviños (2006, p. 110) "to describe 'exactly' the facts and phenomena of a given reality." Regarding the method used in the case study, for undergraduates in Business Administration, was the distance mode, specifically in the mentoring area of the course. For data collection, the technique used was structured observation of the processes adopted by mentoring, plus interviews with tutors and course managers. The information was organized by activities in chronological order, in order to map the process developed.

4 Presentation of results

In 2005, the Ministry of Education (MEC) set up an experimental program to link and integrate a national system of higher education (Ministry of Education, 2009). This develops actions that seek to solve the problems of education in the country, promoting inclusive education (Ministry of Education, 2009). Therefore, public institutions of higher education started to offer higher education to municipalities that have no offer or whose courses offered are not sufficient to serve all citizens in the distance mode.

In the State of Santa Catarina, one of the public institutions of higher education that participates in the UAB program is the Federal University of Santa Catarina. Among the distance learning courses offered by this institution (address included in this paper) is the undergraduate in Business Administration.

The undergraduate in Business Administration, in the distance mode, of UFSC started activities in 2005 through a partnership between the Ministry of Education, Bank of Brazil and 27 other Federal and State Institutions of Higher Education (Ministry of Education, 2009). Today, UFSC has three projects in distance education in Business Administration in progress (Pilot 1, Pilot Project 2 and UAB), totaling approximately 1600 students distributed in 25 centers of education. The total number of hours of the course is 3,000 hours/classes, organized in nine modules.
To offer the course, the UFSC has the poles of education, widespread in the states of Santa Catarina, Rio Grande do Sul, Paraná, Bahia and Roraima. These poles are used for classroom activities and as a support for students throughout the course. Moreover, it also has a mentoring located on the campus, which accompany the students. As educational resources, the course uses printed material, virtual environments for teaching and learning, instructional videos and videoconferencing. Figure 2 shows all the units that make up the Business course in distance mode of the University.

![Figure 2 – Units of the course in the distance Administration UFSC](source: Authors)

To manage the entire system of the Undergraduate Program in Business Administration in the distance mode of UFSC, there is the Committee of Planning, Organization and Operation, which is responsible for all actions involved in the project.

The course has mentoring located at the university, which is responsible for monitoring student learning with teacher guidance. As the quality references for distance education courses of MEC, a course must present areas for classroom activities in its structure. In this case, such settlements are called centers of education, which have all the necessary structure for decentralized execution of some of the teaching and administrative functions of the course.

All printed material is offered to students free of charge. Each discipline has its own textbook, prepared by their respective teacher content author. The Virtual Environment for Teaching and Learning (VETL) course is used by the Moodle platform. Moodle is a free course management software using valid pedagogical principles.

The Laboratory of Distance Education (LDE) works in the planning, layout and implementation of distance education courses and the use of different technologies for education at UFSC. Thus, the LDE provides services to the Business Administration course, in the distance mode, namely transmission and videoconferencing production and recording of video lessons.

### 4.1 Mapping the tutor process

We chose the role of the tutor as the focus of this article because the biggest criticism of the DL refer to barriers related to time management study of the students and lack of personal contact, which causes this type of education to require an effective monitoring of students "(OLIVEIRA, 2005, p. 2). Thus, the tutor plays a key role in the process of distance education and it is essential that all processes related to it are very well managed.
Using the approach of Cruz (2000), processes should be seen as a set of interdependent parts. Knowing every part that makes the process settles a greater responsibility for each party in addition to improving the understanding of those who participate, about the whole process, enabling continuous improvement.

Therefore, the process studied in this article will be the function of the distance tutor. In order to standardize the role of tutor to the undergraduate program in Management of UFSC and work with total efficiency regarding the organization and operation of mentoring, all the sub-processes and activities that effect the tutor were mapped out. The role of the tutor is basically composed of three sub-processes: training, communication with the student and evaluation, as can be seen in Figure 3:

![Figure 3 - Mapping of processes](source: Authors)

The first sub-process that must occur is the tutor training. Each tutor must undergo three training sessions so they can monitor the students in their learning.

Initially, the tutor receives training on the use of VETL. VETL's team is responsible for training the tutors, as well as making the entries of tutors and students in the system, provides subjects and follows up on these activities. In addition to taking on the task of tutoring, the tutor receives training on the method of distance education. There should also be periodic activities so the tutors have the opportunity to update and discuss issues and cases of DL.

Finally, at the beginning of each course offered, the tutor receives specific training in order to be able to monitor students. To do this, the tutor must read the textbook of the course, watch the instructional videos and resolve all the activities proposed by the teacher, so they can finish the training with the teacher, which will give guidance on the proper course of discipline.

After receiving all necessary training, the tutor starts another subprocess, the communication with students. The first student contact with the tutor is through the VETL, which is the main tool of communication. "It is the tutor who is close to the student with the content offered, which is necessary for a self transit in virtual learning
environments" (OLIVEIRA, 2005, p. 3). In this environment, the student will find all the material provided by the course. With VETL the tutor can communicate with students via chat, which provides a moment of interaction so that students can get answers to their questions. At the chat, the available tutor is responsible for meeting the student who is online, and all posts are logged and can be accessed later by other students.

The video-conference that consists of an activity of interaction with the teacher of the discipline which must be accompanied by the tutor. Videoconferencing, once closed, is edited and posted on VETL. In order to achieve greater interaction with students, the tutor has at its disposal other means of contact such as e-mail and phone.

With this interaction the student should absorb the contents of the course so they can perform the activities proposed by the teacher. Then comes the third sub-process: evaluation of the student. The student's grade comes from two assessments, activities that account for 40% of the final grade and is held at a distance, and is the final test of discipline that should be done in the center of education and accounts for 60% of the final grade.

Every discipline has a schedule that is passed on to students, so each activity has a deadline to be sent to the tutor. After receiving the students' activities, the teacher should correct it in accordance with the feedback provided by the teacher, pointing out the errors, justifying the errors and assigning the concept. After that, it is the duty of the tutor to give feedback to the student about their performance.

On the date stipulated by the schedule of the course, students will take a test in the center of education. The tests carried out in each center of education will be sent by mail to the mentor. Upon receipt, each tutor must collect the tests of their students, make the corrections and assign the concept. The tutor should again provide feedback to the student about their performance. After inserting the grades on VETL, the tutor must file the test in the control folder of each student.

After completion of the whole process of the role of the tutor, he should issue a report, called the Academic Control, to the supervisor, specifying all the monitoring process of the students. This report is intended to serve as a tool for managing the process as a whole. After all, as shown by Campos (2004), process management should be focused on monitoring the results.

In Control Academic, information will be presented regarding the notes of each student, their participation during the course and also observations. With this information, the supervision center can identify the strengths of the processes and propose improvements and corrections.

It should be noted that, unlike the present teaching, in the DL the elaboration of the report is important so that information can be passed on to managers aiming at the adequacy of policies, identification of needs and difficulties, and thus meet the profile and expectations of the student.

5 Final Remarks

The search for knowledge as a basic requirement in modern society has made education institutions, with support from government agencies, to create other processes of teaching and learning. In this context, education has been highlighted in the care of people who, for whatever reason, did not have access to higher education. With the creation of distance education courses, came the figure of the tutor, a role which is not yet formally established by the civil service, but vital in the progress of activities in the distance.
On this basis, this paper aims to demonstrate what the functions of the tutor are in distance education and to describe the processes that belong to this new role. To this end, we analyzed the mentoring of undergraduates in Business Administration, the distance mode, of the Federal University of Santa Catarina.

Following first the presentation of the processes developed by the tutor, second, its capacity to act as tutor, and the actual activities of the job, noting the importance of the function developed by the tutor in enabling the provision of ongoing distance education course. This is because distance learning refers to the idea of offering courses to a larger number of people compared with the present teaching and this is only possible thanks to the team involved in the process, one of those are the mentoring.

With this support in the monitoring of individual students, it is possible to the educational institution with the existing faculty, to form a much larger number of people located in various locations, thus establishing a level of educational development in the wider country.

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