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# Quality Assurance in Distance Education in Brazil

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Additional information is available at the end of the chapter

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## 1. Introduction

Distance Education constitutes one of the education fields that are evolving rapidly around the world. So, it is possible to consider it as an important instrument to reach youngsters and adults whom learning needs were not satisfactorily met by the traditional educational system. Distance Education has a great potential in several levels and niches in the society. This educational methodology has shown a new paradigm that permits access to much more people at the universities, as well as the improvements of the qualitative level of the professors who haven't much time to upgrade themselves, mainly in Brazil where most primary and high school teachers dwell in more than one school to complement their wages which are very low.

Due to the complexity of this process, which is still new for Brazilian reality, the institutions involved in this modality of education should spend time and money in evaluating the system performance in order to have it run smoothly. The whole process of Distance Education needs to face an overall evaluation. Each learning instrument or tool needs to be addressed for improving the quality of the knowledge the student will achieve during his learning process.

Within such a context, this chapter aims to analyse tutors', students' and university teachers' perception about quality assurance in a distance undergraduate management course offered in partnership with Brazil Open University, the Ministry of Education and the Federal University of Lavras in Minas Gerais, Brazil.

The next sections aim to highlight information and some authors' points of view on Distance Education conceptualization and challenges, and quality assurance in Distance Education. A practical experience on evaluating Distance Education is also addressed in this section. In the sequence, the authors present some aspects of the methodology used to gather data to discuss the Brazilian experience on distance education regarding teachers', tutors' and

students' points of views. The next part of this chapter deals with the results obtained in that research. Finally, the authors make some final considerations about the study and leave some ideas for new research on this matter in Brazil and worldwide.

## 2. Related literature

### 2.1. Distance education conceptualization

It is possible to define Distance Education as a way of education such that the professor/instructor is geographically distant from the student/trainee [1]. One form of distance teaching is using the Internet; gathering information together and making it available for those in need of it. Online courses offer opportunities in creating new ways of learning, and integration of multiple media (text, image, audio, and video) in a single tool. On the other hand, Distance Education can be seen as a systematically organized way of self study in which the student instructs himself from the study material that is presented to him, and the follow up and the student success supervision are accomplished by a group of tutors and or professors [2].

Though, Distance Education presents the following elements: "Physical separation between professor and student, that distinguish itself from the in loco education; educational organization influence (planning, systematization, plan, project, tutored organization etc), that make it different from the individual education; utilization of communication technical means, usually printed, to transfer or disseminate technical contents or knowledge; forecast of a bi-directional communication, in which the student gets the dialogue benefits, and the possibility of initiatives bi-directional; occasional encounters possibilities with didactic purposes and of socialization" [3].

Distance Education is "a teaching-learning method, which shortens the distance between the students/courses-taken and the educational institutions, enabling them to construct their own bank of information with technical support, i.e., computer science (hardware and software), and the means of communication (satellite, cable or digital satellite TV, written and audiovisual web, and videoconferences, among others), both synchronously and asynchronously" [4]. Thus, this alternative reduces the number of excluded people from the digital world by teaching, informing and training them in Computer Science. However, the evasion in continued formation courses is still very high and has caused a deep concern to its idealizers and other people involved in Distance Education. As a result, this theme is becoming more relevant each day, calling for identification of gaps and faults, which can be prevented, so that the students can finalize their courses without the evasion risks. Thus, identifying higher quality patterns is relevant for corporate or traditional education institutions. However, understanding the authors' views and perceptions about distance courses is important.

Keeping these considerations in mind, to validate the use of this methodology is relevant to evaluate its results. Thus, the next section describes some theoretical review about the challenges in offering this modality of education in large countries like Brazil and each country with its specificities.

## 2.2. Distance education challenges

The specific characteristics of Distance Education show the potential of long distance teaching and learning not only in Brazil, but worldwide. The challenges for Distance Education may rise at different levels, such as: the visibility of the pedagogical proposals and its connection to the quality of teaching and learning; the creation and organization of the managerial infra-structure; the access to appropriate communication technology; and the promotion of the interaction among students, tutors, staff, and teachers.

In the specific case of Brazil, the biggest challenge for spreading Distance Education in this huge country is related to the diversity of contrasts and discrepancies at the social, economic and cultural levels. Many regions in the country are completely excluded from electric energy (which is the first condition to connect people to the internet to provide them more access to the evolution of digital technology) [5]. These are the moving powers necessary to promote large changes on Distance Education inside the country.

Another problem is related to the low family income level, which reflects directly on the school grade or level among children and even adults. In this specific case, the actions of local, regional and federal governments are essential to minimize this problem. In this context, The Ministry of Education of Brazil has created specific regulations for implementing Distance Education as an official teaching in the country. The main specific regulation for implementing Distance Education in Brazil is the Decree No. 5.5622 - December 19, 2005. This Decree regulates article 80 of Law no. 9.344 – December 20, 1996. It establishes the directives and bases of national education. This Decree characterizes Distance Education as an official educational modality, being its didactic and pedagogical mediation in the teaching-learning process developed via Information and Communication technologies, and by its teachers and students developing educational activities in different times and places [6]. In this context, a big challenge for all players at the educational sector is to ensure quality at this modality of education.

## 2.3. Quality assurance in distance education

Distance Education constitutes one of the education fields that are evolving rapidly around the world. So, it is possible to consider it as an important instrument to reach youngsters and adults whom learning needs were not satisfactorily met by the traditional educational system. Distance Education has a great potential in several levels and niches in the society. This educational methodology has shown a new paradigm that permits access to much more people at the universities, as well as the improvements of the qualitative level of the professors who has not much time to upgrade themselves, mainly in Brazil where most of primary and high school teachers dwell in more than one school to complement their wages, which are very low.

For this reason, the whole process of Distance Education needs to face an overall evaluation of assurance quality. Not only Brazil, but also other parts of the world illustrate the importance of quality standards. The American Council on Education, in 1996, the American

Federation of Teacher, in 2000, and the Council for Higher Education Accreditation, in 2005, have distributed and circulated documents outlining quality standard for distance education. Therefore, each learning instrument or tool needs to be addressed for improving the quality of the knowledge the student will get or achieve.

An environment that provides knowledge construction in distance education needs: to offer activities centered on the active student, which leads to the meaning of the real learning process – learning by doing; to propose activities inside situation where it is possible for the student to contextualize and re-contextualize in order to learn in a more natural form; to offer opportunities for negotiation and interpretation involving several perspectives conducting all the actors to a more reflexive mentality; highlight and incorporate previous experiences and experiences from day-to-day life for the meaning construction during the process of knowledge assimilation and construction; and use technology to measure the higher mental processes [7].

On the other hand, the challenge for improving quality in Distance Education is to ensure that pedagogical project contemplates the Best References for this modality of course, which were set by the Secretary of Distance Education Secretary, from the Ministry of Education and Culture – SEED/MEC. This is a quality assurance framework in distance education to be adopted by all initiatives on this modality of education in Brazil. This proposal involves [8]:

- Pedagogical mediation should be the result of the dynamic equilibrium and interaction among the actions developed to guarantee the pedagogical intention and to help students to reach a better level of awareness;
- The proposed activities should bring learning control and responsibility upon the student;
- The interaction among students, teachers, and other actors involved in the learning process should be covered by trust, respect, and freedom for stimulating the coming up of weaknesses and strengths;
- The digital resources should be appropriated to the nature of the knowledge, the students' profile, and the access conditions;
- Finally, it is necessary to set an appropriated virtual learning environment where all the activities are well connected and interrelated in an invisible and dynamic net, allowing the development of the knowledge construction process.

Along with that, the Ministry of Education through the National Institute of Educational Studies – INEP developed a framework to warranty quality in distance education in Brazil and they evaluate every course to provide “Accreditation” to each of them. The evaluating occurs before the course starts to give “Authorization” for its beginning, two years after to give “Recognition” to the course and after the first graduation to offer “Renew of Recognition”. This framework involves eight aspects and they should be fully expressed in the Pedagogical Political Project of every distance education course [9]. These aspects are: (i) The design of education and curriculum in teaching and learning; (ii) Communication Systems; (iii) Educational material; (iv) Evaluation; (v) Multidisciplinary team; (vi) Infrastructure support; (vii) Academic and Administrative Management; (viii) Financial

sustainability. The evaluators have to consider all these aspects during in loco evaluation in order to accredit the course as a qualified course.

Keeping these ideas in mind, we may say that it is relevant to evaluate distance education, because it is a reality in Brazil and worldwide. A proper evaluation will assure improvements and quality in order to offer an appropriated knowledge for people in different areas of the country and people who did not meet the educational standards for their proper age. One of these experiences is the CEDERJ Consortium, celebrated among higher degree institutions in the state of Rio de Janeiro and the state government of Rio de Janeiro.

The Consortium for Distance Education in the State of Rio de Janeiro - CEDERJ was officially launched by the honourable State Governor, the honourable Science and Technology State Secretary, and the Magnificent Rectors of the public universities in the State of Rio de Janeiro, on January the 26<sup>th</sup>, 2000. The consortium objectives are: to contribute to the free offering of good quality superior education to the countryside in the State of Rio de Janeiro; contribute so that access to the superior education is available to the ones that could not attend the traditional time-table; acting at distance for the continued formation of professionals in the State, with special attention to the updating process for the teachers engaged on state primary and secondary schools; and to increase the vacancy offering in the graduation and post-graduation courses in the State of Rio de Janeiro [10].

In 2000, it launched the first course with 160 places for Mathematics from the partnership with UFF and UFRJ. In the second semester of 2005 there were 9,864 students registered for 5 graduation courses: Mathematics, Biology, Physics, Pedagogy, and Computer Science spread all over the state. The students get the didactic material in book form; they have in loco attendance in the so-called poles; attendance at distance through a free phone line; they are also attended by e-mail, forum or chat in the platform. The main evaluation is done in loco in the poles and the student still cumulates evaluation points taken from the evaluation at distance [11].

Nowadays, the consortium counts on 7 poles at distance installed in the universities and CEFET Rio, 6 Science Spaces, and 33 Regional Poles. There are more than 30.000 students enrolled on 9 different courses. CEDERJ offered 5.433 vacancies for the second semester of 2012 for the following courses: Management, Public Mangement, Bachelor in Biological Sciences, Physics Degree, Degree in History, Bachelor of Arts, Bachelor of Mathematics, Pedagogy, BA in Chemistry, Bachelor in Tourism, Technology in Computer Systems and Technology in Tourism, Degree in Biology, Degree in Pedagogy and Degree in Chemistry. A total of 20.618 candidates enrolled on the admission tests [12].

This consortium was the first large experience in joining expertise from different universities with the support of the state government. This experience served as pilot projet for creating Brazil Open University (UAB), in 2006. This is an important iniciative of the Ministry of Education and many other public universities and municipalities to offer distance education free of charge inside the country. For all these reasons, the next section will address the

evaluation process developed by CEDERJ and its partner universities to ensure quality in this modality of education.

#### **2.4. A practical experience on evaluating distance education**

The Consortium for Distance Education in the State of Rio de Janeiro - CEDERJ is composed by The Federal University of Rio de Janeiro (UFRJ), The Fluminense Federal University (UFF), The Federal Rural University of Rio de Janeiro (UFRRJ), The State University of the Fluminense North (UENF), The State University of Rio de Janeiro (UERJ) and The Federal Institute of Rio de Janeiro (IFET). CEDERJ's headquarter is located at Visconde de Niterói Street – 1364 – Mangueira – Rio de Janeiro – Brazil.

In order to understand the process of adapting methodologies and instruments to evaluate distance education courses [13] discussed the evolution of the evaluation methodology in this regional consortium experience. The main idea of this study was to present the results of the evaluation performed in that consortium. It was evaluated virtual platform ([www.cederj.edu.br](http://www.cederj.edu.br)), instructional material and tutorial using a structured questionnaire. However, other aspects were also analysed from different perspectives. The information was gathered mainly from structured questionnaires available at the virtual platform and technical visits organized to evaluate presentially the different municipalities where CEDERJ courses were offered in partnership with the six universities of the state of Rio de Janeiro. These authors came to the conclusion that evaluation methodology turned into a very broad process that was also very important to redefine the methodology for the following years. In 2008, CEDERJ applied a different questionnaire with open questions for students, tutors, teachers, poles, directors and course coordinators [14]. Some secondary data was also gathered and analysed to validate the methodology. This evaluation was mainly influenced by the amount of data gathered from the previous evaluation. The previous evaluation is described below.

The whole evaluation process counts on 5 steps or phases. The first one was to stimulate students and staff working at the regional poles, using advertisements fixed on the boards, messages left in the virtual platform and tutors talking to the students. The second phase was the qualitative and quantitative data collection itself. The evaluation was held during the second semester of the year, the first experience happened on October 2005, and involved filling out the questionnaires and the technical visits performed in each pole or municipality. The next phase was the self-evaluation, carried on the base of the gathered data from the questionnaires and technical visits [15].

The forth phase was an external evaluation in order to double check the data and process some extra analysis on them and get views from different actors who are not directly involved in the process. It happened in August 2006. The last phase was a reconsideration of the process as a whole. It was necessary to organize a seminar in early October 2006 to offer subsidies to establish future actions based on the process of self-evaluation and external evaluation [16].

The evaluation to assess quality of CEDERJ distance courses was composed by a questionnaire composed of 8 main blocks of questions and the students had to tick one of the five graduation possibilities in the scale, which varied from Poor (1) to Excellent (5). The first block was related to the regional pole infrastructure, which assessed and evaluated students' points of views about the place where they have direct contact with other students and mainly the presence tutorial; as shown in Appendix. The next block was about the Platform. In this block the student was supposed to evaluate the tools that were available for their interaction to distance tutorial and all of the other facilities they have in it. Didactic Printed Material or the booklets were evaluated in the following block of topics. This one was very important because most of the students place much more emphasis on the printed material than the other facilities provided by the system [17].

In the sequence, the students evaluated local tutorials considering different topics, and then at distance tutorials considering timetables, tutor attention and so on. In the following block they pointed out their views about local evaluations and at distance evaluations analyzing other topics. The students' assiduity comes next, and its efficiency was measured by the number of times the students access the platform, and attend local and at distance tutorials. It varied from none (so the student ticked number 1) up to more than 20 times (so the student ticked number 5). It is worth mentioning that the questionnaires provided very rich information to draw graphics and tables for visualizing the results according to the different poles, courses, and even subjects.

The questionnaire was returned to 3,345 students, whom were usually enrolled in 4 or 5 subjects per semester. The results were summarized in different topics, like: local tutorial, at distance tutorial, teaching team, subject evaluation tests, didactic booklets, didactic material available at the platform, U-Virtual or Virtual platform, and infrastructure of the poles. A program was developed to categorize and summarize all the data gathered from the questionnaires [18].

In this first round of the process, it was gathered 1,590 written messages. From these observations it was elaborated a summarized report, per area, with the main problems and their suggestions to improve the quality of the system as a whole. A part from that, a team of courses representatives visited the poles in order to perform the second step of this phase. Each course sent its representatives, and CEDERJ itself sent a representative to spend almost a day in touch with pole directors, tutors and students. The team also counted on one professional in charge of performing a short conference for the whole group of students and tutors from each pole [19].

As a result of each visit the team leader prepared a report summarizing the findings and addressing it to the evaluating team leader in the CEDERJ headquarter. The report has 2 or 3 pages and all the reports were sent to other colleagues for disseminating the information. The final phases of the evaluation process were the self-evaluation and then the external evaluation. Thus, some seminars were set to discuss the outcomes and prepare the following steps [20].



The evaluation methodology, presented here, has been implemented in the consortium and it seems to be working properly. The data from the questionnaires are usually processed into graphics and tables in order to better visualise and understand the students' perceptions and points of views about CEDERJ experience. The technical visits provide subsidies to re-orient the process. Some actions are always taken on the basis of the evaluation results. The whole methodology has been implemented every year and it is planned to last for one whole year. This means, each process starts when the previous one ends. This methodology is providing subsidies to improve the quality of the whole process including changes in the platform content and design, written material and tutorial activities. [21]. Since evaluation is a continuous process, CEDERJ improved the instrument of data collection and turned it into a more flexible instrument with structured and open ended questions.

Due to the complexity of this process, which is still new for Brazilian reality, the institutions involved in this modality of education should spend time and money in evaluating the system performance. Thus, the Federal University of Lavras and other different universities around the country, in partnership with the Bank of Brazil, offered an undergraduate management course on distance bases. The Ministry of Education offered financial support to set such broad project. This is another experience and this chapter deals with some empirical results of teachers', tutors' and students' perceptions about the course. Some information about data gathering for this study is presented in the sequency.

### **3. Methodology**

This section aims to explain the procedures adopted to perform this research. The course was offered in partnership with the Brazil Open University and the Ministry of Education. The course was offered by 18 public Brazilian universities spread all over the country. In 2010, there were 118 poles, or municipalities, involved within this pilot project. Each university attends some poles in order to certify the students at the end of the course. They also give support for presential activities and meetings. This experience is singular in the country, so it is relevant to improve the pattern of life within the country too. It is because the initiative helps to offer more access to higher education. It is worth to say that this course is not a sequential one; it is just one entrance course. This is a "pilot project" that is subsidizing the decisions of the Ministry of Education regarding the offering of other different undergraduate courses on distance education modality.

For this chapter the authors chose the Federal University of Lavras (UFLA) as a sample for this research. UFLA has 289 registered students at the course. Among them, 130 are staff and members of the Bank of Brazil, and 159 belong to the civil society. In order to evaluate the quality of the course a structured questionnaire was developed. The first section of the questionnaire was aimed to describe the profile of the respondents. All the main actors (students, tutors, and teachers) involved in the educational process were supposed to answer it. The main section of the questionnaire addressed questions related to printed material, platform access, tutorial, chat, exams, meeting, and other issues related to the process of offering the course.

The students, tutors and teachers answered a questionnaire at the end of 2009. The questionnaire was available at <http://www.admead.ufla.br/moodle>. This survey provided a huge amount of data that was addressed to improve the quality of the experience itself and the quality of other distance education initiatives, like the Public Management Course, which is being offered by Brazil Open University in partnership with UFLA and other universities around the country. It took about 10 minutes for them to answer it.

The data was systematized and analyzed using Excel spreadsheets and then the information was transferred into tables and graphs to facilitate the readers understanding. The next section aims to present the results gathered from the questionnaires answered by the students, tutors and teachers from the Undergraduate Management course offered by the Federal University of Lavras, at Minas Gerais, Brazil and its partner, the Bank of Brazil.

#### **4. Findings and discussion of findings**

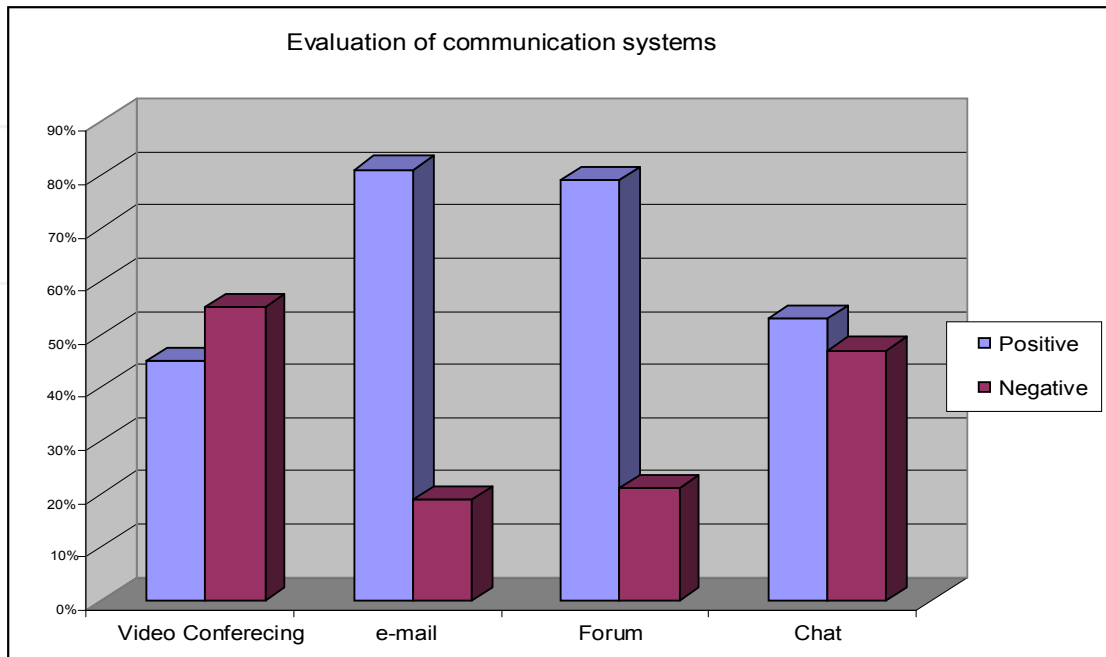
In order to evaluate the quality of this course we will discuss the actors' opinions about: mechanisms of interaction between students, teachers and tutors; assessment about textbooks; students' perception about teachers' and tutors' performance; teacher's view about technology, students' involvement, didactic material, structure and management support, and their own involvement within the course. All these topics and other ones that may be related to them will be addressed in the sequence.

Students were asked to evaluate the forms of communication between the actors in this model of education. As alternatives to this issue there were four interaction mechanisms: video conferencing, electronic mail, forums and chats. Those with the most significant results were e-mail and forum, with positive acceptance of 81% and 79% respectively, as shown on Figure 1. Another video conference and chat have been evaluated positively for 45% and 53%. Instruments of immediate interaction, such as video conference and chat, were badly evaluated probably because of the quality of internet connection in certain localities where the students undertake the use of instruments of immediate interaction, like what was indirectly mentioned by [22] when he pointed out the challenges for distance education in a big country, such as Brazil.

At Figure 2, we may observe tutors stated that students' and teachers' involvement predominate as they are considered the most important aspects for maintaining the quality of distance education. This reinforces that, although it is a course that relies on technology, in a decisive manner the human component makes a difference.

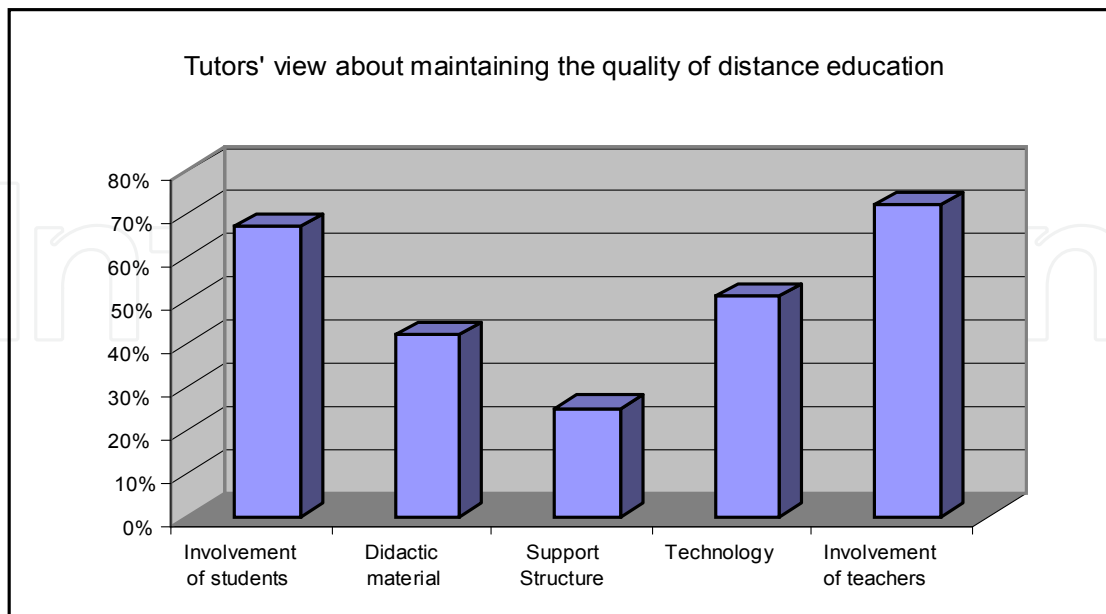
Respondents pointed textbooks or teaching materials as extremely important and significant in the process of teaching and learning at distance bases. All items questioned were evaluated with agreement by a least 77% of respondents (Figure 3). Teachers and tutors informed that interaction with the content, development of skills and competences, interaction among communication resources, and orientation related to the understanding of the proposed activities that are relevant to assess the quality of suitable printed material in distance education. They also mentioned that stimulating indeep appropriation of the

content is also relevant for students assimilating the content and generating new knowledge.



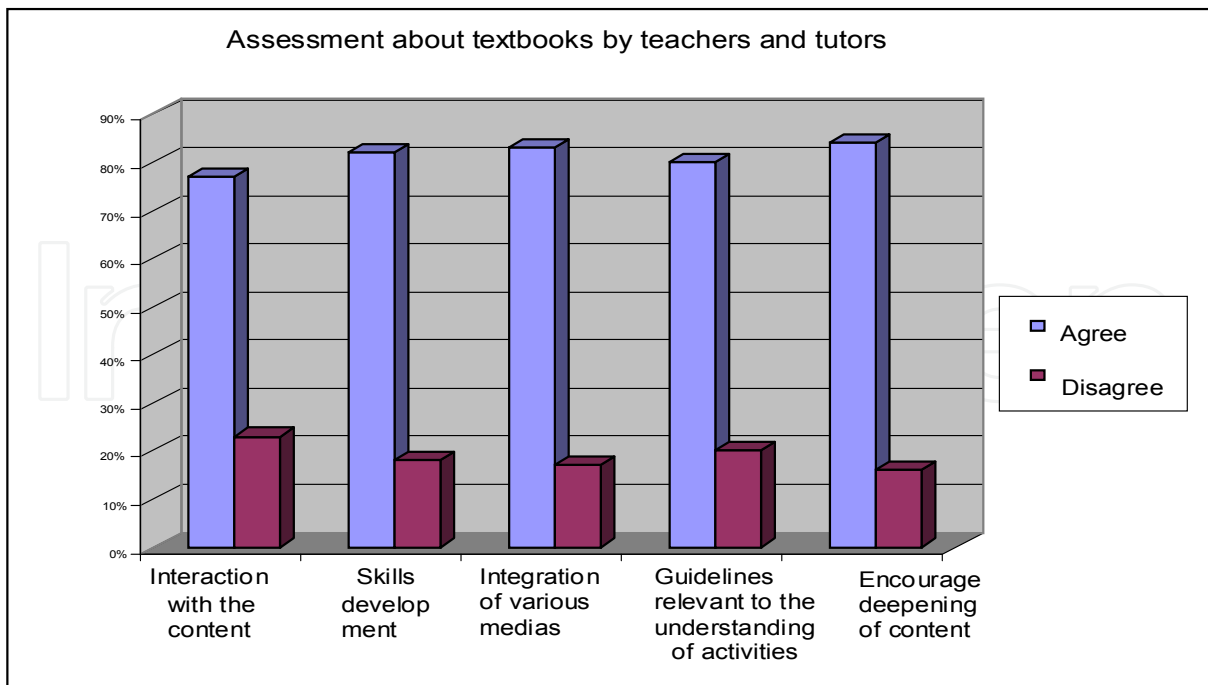
Source: Research data

**Figure 1.** Students' perception about communication systems



Source: Research data

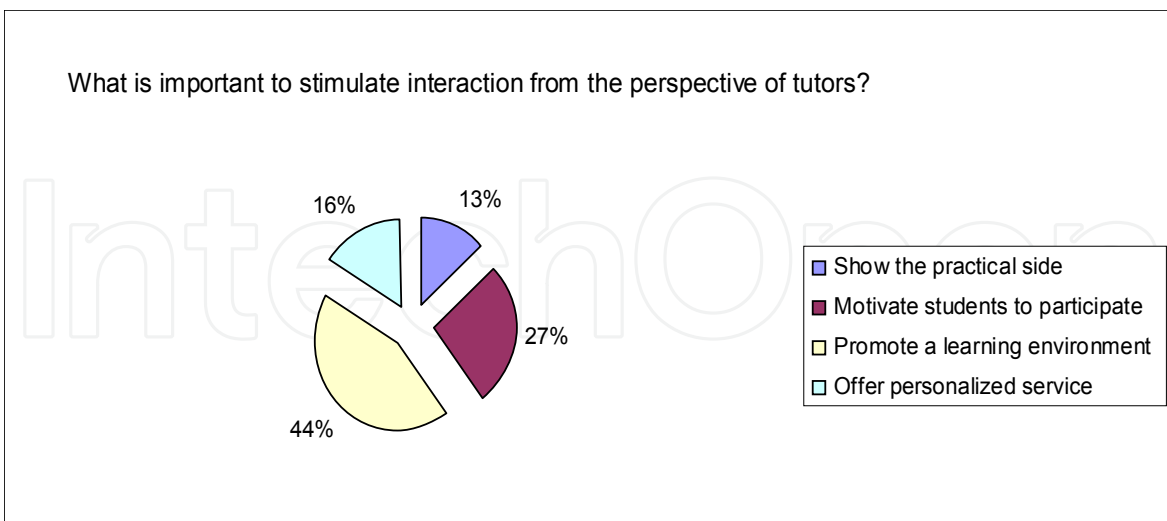
**Figure 2.** Tutors' view about quality of distance education



Source: Research data

**Figure 3.** Teachers’ and tutors’ points of view about textbooks

According to Figure 4, tutors who answered the questionnaire had concern with the environment that must be created so that students may have available all the necessary factors to assure quality learning. On the other hand, tutors showed little concern in transmitting the practical aspects of each subject.

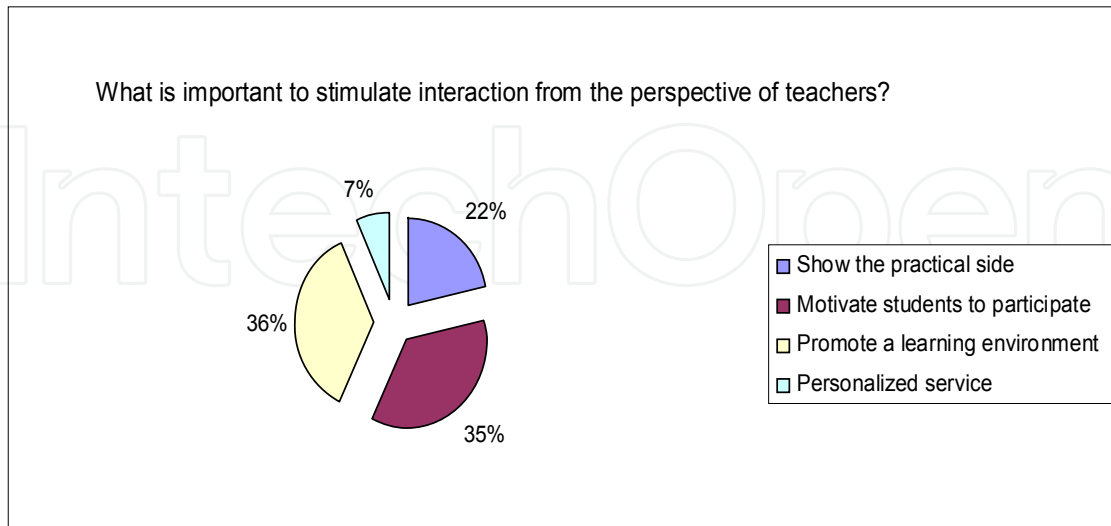


Source: Research data

**Figure 4.** Tutors’ points of view about stimulating interaction

Teachers emphasized the promotion of a learning environment and encouraging students’ participation through motivational elements to stimulate the interaction with the students as

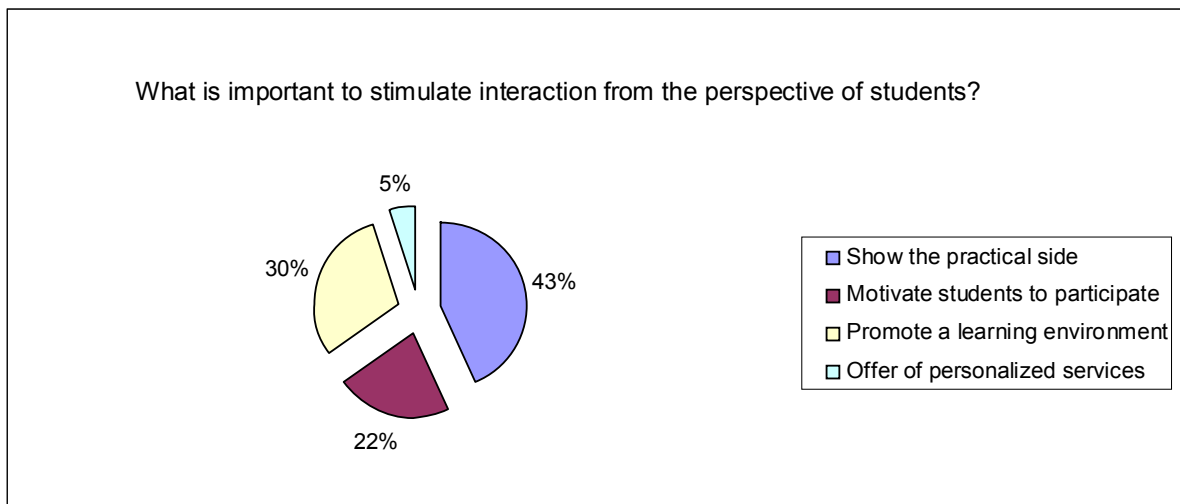
shown in Figure 5. Teachers understand that personal service is not as important as the aspects mentioned above.



Source: Research data

**Figure 5.** Teachers’ points of view about stimulating interaction

Students participating in this research highlighted the importance of being attached to practical content. This assertion was selected by 43% of respondents and shows how these students appreciate the combination of theory and practice to warrant quality on the whole system (Figure 6). Also noteworthy is that the students themselves do not believe it to be important to receive personalized service.



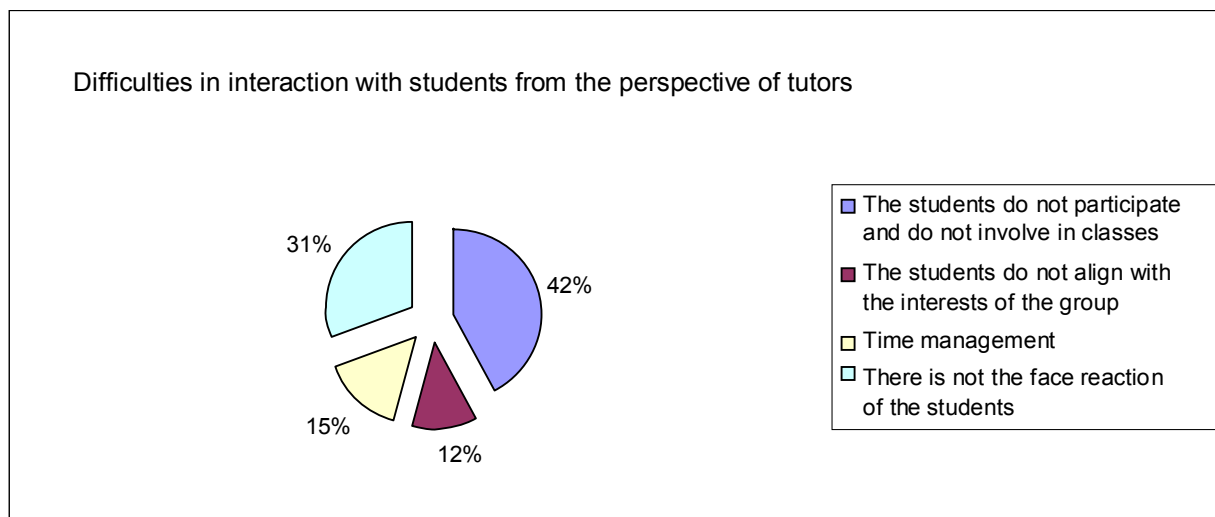
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**Figure 6.** Students’ points of view about stimulation interaction

By comparing these three points of view, we can see that each actor in the educational process has a different perspective of quality regarding the interaction among them. There is

clearly a gap between the assessment of tutors and teachers about what is important and the assessment of students on the same time. The importance of practice that is emphasized by the students does not meet the same expectations in responses of tutors and teachers. On the other hand, there is a convergence of ideas about personalized services to be offered for different students. In this case, all the actors involved in the teaching and learning process do not emphasize this topic.

At Figure 7, we may see that tutors highlighted the absence of participation and involvement of students as the most significant difficulty in distance education, since 42% of the respondents indicated that alternative. Another element of note is the lack of physical and visual reactions of students, pointed as the main difficulty for 31% of the respondents. The other two options, time management and improper alignment of students and others group members' interest, were not so relevant for interaction according to the tutors points of view.

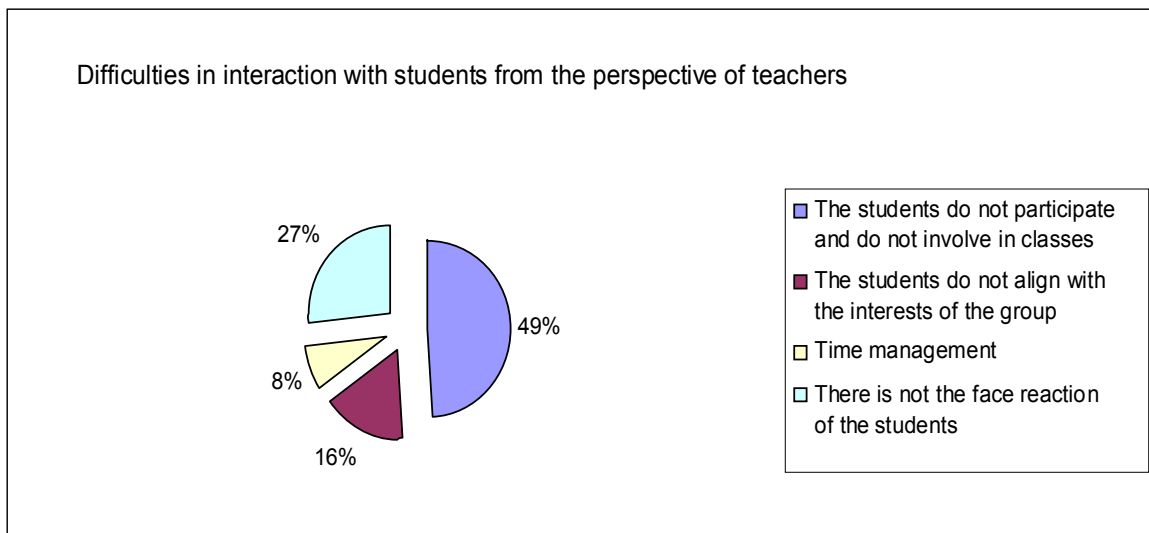


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**Figure 7.** Tutors' perspectives about difficulties in interaction with students

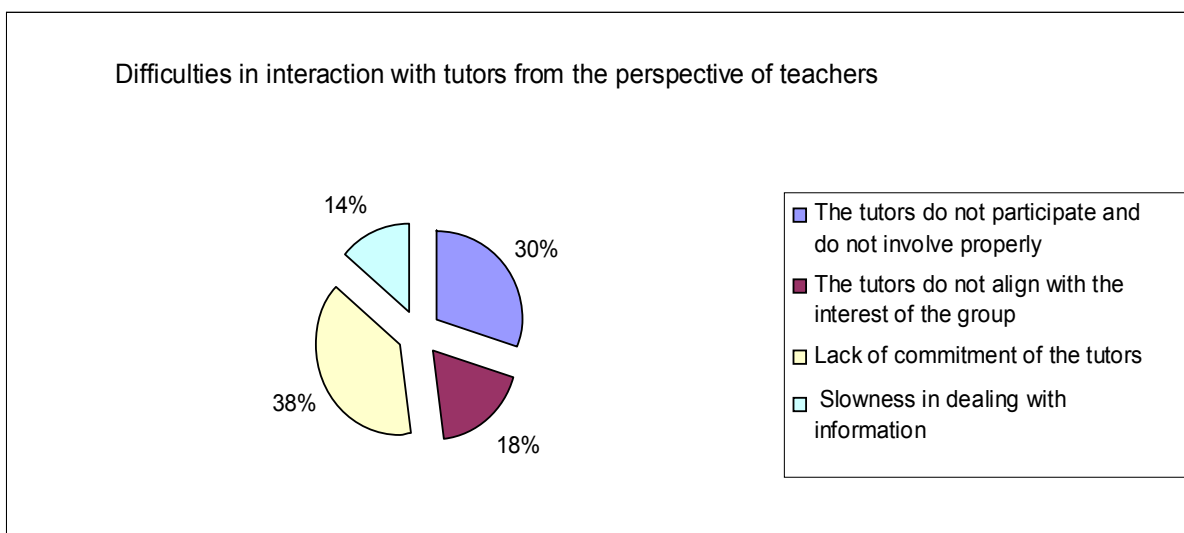
Teachers highlighted the absence of participation and involvement of the students as the most important difficulty in interacting with students (Figure 8). In this case, 49% of respondents chose this alternative. Another item often mentioned is the lack of face reaction of the students, with 27% of responses. It should be noted that time management by students was not considered a very significant difficulty.

Teachers pointed out lack of commitment of the tutors and absence of their participation as the major difficulties encountered in the interaction with them in order to warrant the quality of the educational process. On Figure 9, we may see that for 32% of the respondents, tutors should be more aligned to the interest of the group of students and work faster with information to improve the quality of distance education.



Source: Research data

**Figure 8.** Teachers’ perspectives about difficulties in interaction with students

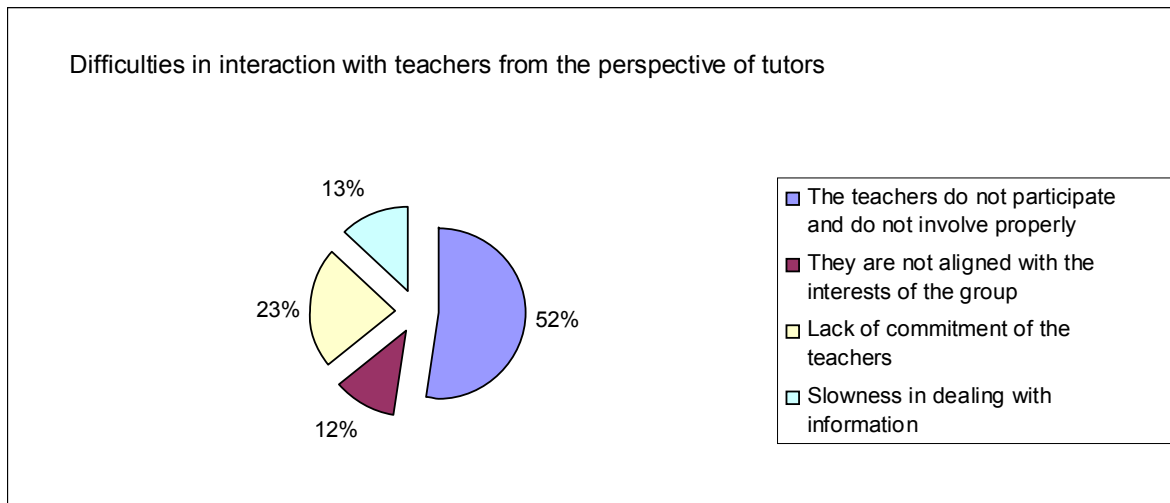


Source: Research data

**Figure 9.** Teachers’ perspectives about difficulties in interaction with tutors

Looking from the other side now, Figure 10 shows that tutors also pointed out lack of proper participation and involvement (52%) and lack of commitment of the teachers (23%) as the major difficulties encountered to assure quality in the distance education process. The percentages are bigger in this case. So, one may say that teachers should be more integrated with tutors to improve the quality of distance learning process. On this regard, we may point to the proposal of [23] about the characteristics of the environment that provides knowledge construction. On their words, this environment needs to offer activities centered on active students, and to offer opportunities for negotiation and interpretation involving

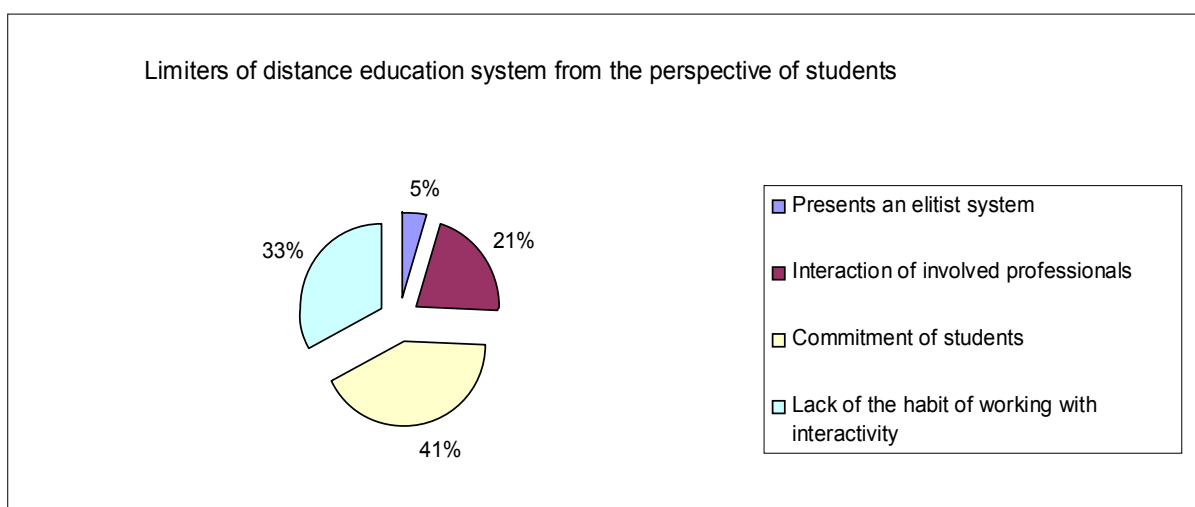
several perspectives. Therefore, these aspects are relevant to assure quality on distance education.



Source: Research data

**Figure 10.** Tutors' perspectives about difficulties in interacting with teachers

According to the students, to achieve real commitment from students is the most relevant limiter for achieving quality for distance education as shown on Figure 11. This is an important fact to observe because the students themselves are aware that their commitment to distance course interfere in the quality of the courses. In this case, managers and course coordinators should look for alternatives of technologies or any other combination of present activities to involve the students more within the course and its technologies. Another important factor which is related to this one is the lack of habit of working with interactivity on the learning platform. Interaction of involved professionals was also mentioned as another limiter in the process.

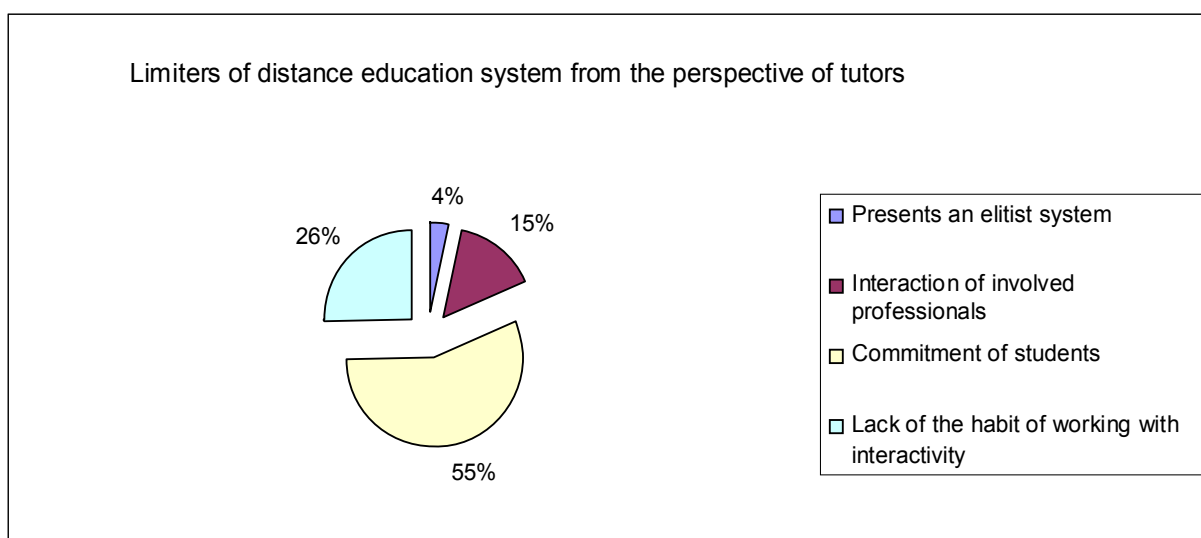


Source: Research data

**Figure 11.** Students' perspectives on limiters of distance education



Similarly, the majority of tutors (55%) also pointed out the real commitment of students as the most relevant limiter of distance education (Figure 12). The second most relevant limiter is the lack of habit of working with interactivity (26%). The third limiting factor for tutors was also mentioned in the third position for the students, which is interaction of involved professionals (15%). So, it is possible to state that students and tutors have the same points of views about the limiters of quality on distance education. On this specific case, the team working with distance education should address these kinds of limiters during the definition of the pedagogical project to delimitate activities ensuring that different actors involved in the operationalization of the course work together, as pointed out by [24]. Teachers, tutors and course coordinators have to work on participatory and integrative bases to decrease evasion during the courses.

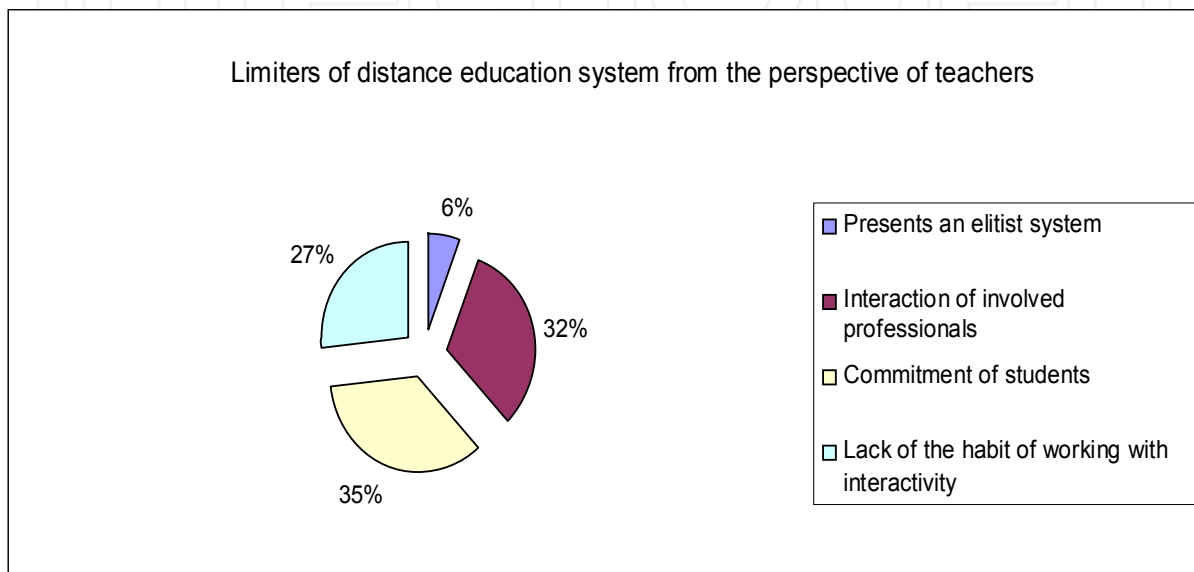


Source: Research data

**Figure 12.** Tutors' perspectives on limiters of distance education

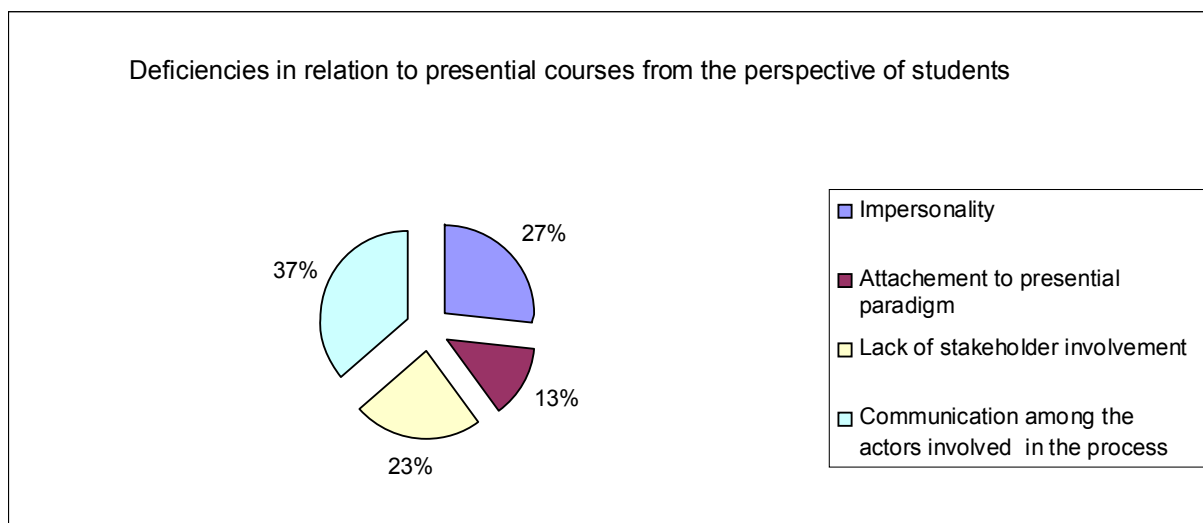
According to the perspective of teachers, commitment of students and interaction of involved professionals or actors are the most limiting factors for distance education as shown on Figure 13. Following these two limiters, comes the lack of habit of working with interactivity as another important condition to improve quality in this educational process. Comparing these three points of views, we may say that all the actors involved in the education process have almost the same perception about limiters in this modality of education. It helps to reinforce one of the challenges for improving quality of Distance Education presented by different authors. One of them states that "interaction among students, teachers, and other actors involved in the learning process should be covered by trust, respect, freedom for stimulating the coming up of weaknesses and strengths." [25].

Students' points of views about deficiencies of distance education courses in relation to presential education courses are presented in Figure 14. It shows that communication between the parts involved in distance education courses is not as good as communication between parts involved in presential courses (37%). The second most relevant item pointed by students is related to the impersonality that happens on distance courses. Apart from these, 23% of the respondents informed that lack of stakeholder involvement is another deficiency on distance education courses.



Source: Research data

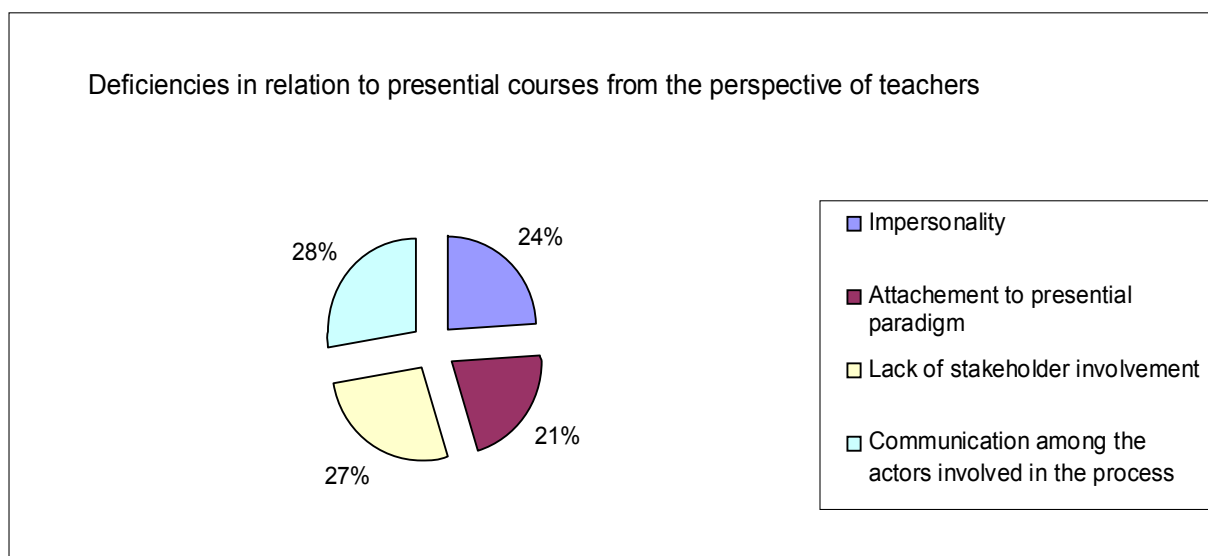
**Figure 13.** Teachers' perspectives on the limiters of distance education



Source: Research data

**Figure 14.** Students' perception about the deficiencies in relation to presential courses

Nonetheless, teachers' points of views about deficiencies of distance courses in relation to deficiencies on presential courses have almost the same pattern of responses. First, but with a slightly higher difference, are the difficulties related to communication among actors involved in the process followed by lack of stakeholder involvement (Figure 15). The other two options impersonality (24%) and attachment to presential paradigm (21%) were also almost equally mentioned by teachers. Thus, comparing these two groups, their points of views are also similar. For this reason, one may state that information technology is relevant to improve the quality of distance education courses. "It is necessary setting an appropriated virtual learning environment where all the activities are well connected and interrelated in an invisible and dynamic net, allowing the development of knowledge construction process" [26]. In this case, developing an appropriated platform for interaction among the involved parts and accessibility to didactic material is very important too.



Source: Research data

**Figure 15.** Teachers' perception on about the deficiencies in relation to presential courses

The aspects evaluated in this course in Minas Gerais - Brazil takes into account the framework to be considered by the Ministry of Education and the National Institute of Educational Studies – INEP in order to evaluate quality of Brazilian Distance Education Courses. As this course was a national piloting project it faced some difficulties mainly regarding communication systems involving students, tutors and teachers' interaction, educational material that sometimes were not totally appropriated for distance education courses and the difficulties regarding the multidisciplinary team, which was spread in different cities and sometimes could not articulate themselves properly to address students', tutors' and teachers' needs on time.

## 5. Conclusion and recommendation

Distance Education is showing a significant growth in the last few years in Brazil and more institutions are getting enrolled in this kind of education. The year of 2005 ended up with surprising news, and for the first time in Brazil, this education model was considered one of the priorities of the Ministry of Education and Culture (MEC). The reason is the great demand for vacancies, mainly in higher education, and the spread of information and communications technologies that make it possible. Apart from that, Distance Education may provide a great impulse to presential education because teachers receive support to elaborate didatic material and training to participate in the web platform.

Distance Education is growing, motivated by the demand of many students finishing secondary school, and other people from different ages and backgrounds that have begun to use on-line training as a way to update their knowledge in Brazil. This new educational paradigm is meeting students' expectations because they may study and work at the same, and they do not need to spend money and time to move from home to school every day. This saved time can be allocated for reading, exchanging ideas and information with other students, tutors and teachers by the internet or a free phone line.

CEDERJ experience, a consortium of the 6 universities of the state of Rio de Janeiro and the Federal Institute of Rio de Janeiro, is one of the well established distance education experience, which is working to improve the access and the quality of knowledge offered to the population in this state. More than 30.000 students are enrolled in its 9 graduation programs and for this reason, it is necessary to evaluate the quality of the system as a whole. The evaluation methodology, presented here, has being implemented in the consortium since 2006 and it suffered some changes during the process. One of the most significant changes was on the instrument of data collection to gather the students' opinions about their courses and the CEDERJ consortium as a whole. The technical visits provided subsidies to re-orient this process of evaluating distance education in Brazil. Different actions were taken on the basis of the results of such methodology of evaluation. The whole process is implemented every year and it is planned to last for one year. This means, each process starts when the previous one ends. This methodology is supposed to provide subsidies to improve the quality of the whole process including changes in the platform content and design, written material, tutorial activities, poles infrastructure and support, coordinating team and other actors involved.

Another experience addressed in this chapter was the undergraduate Management Course offered by The Federal University of Lavras in partnership with the Bank of Brazil and the Ministry of Education and Culture. This course was a pilot project which subsidized the organization and institucionalization of the Brazil Open University. This experience involved 18 public Brazilian universities spread all over the country. The course accounted 289 students registered at the Federal University of Lavras. They answered the

questionnaire along with tutors and teachers engaged in the course. The questionnaire was available at the distance education platform.

This research aimed to discuss students', teachers' and tutors' perception about quality assurance at distance education courses. It analyzed their perception about technology, mechanism of interaction, tutors' and teachers' involvement, communication tool used in this modality of education and teaching material (textbook) used during the course.

The results provided a useful amount of information to improve the quality of the course, including improvements on communication tools, printed material, and even the learning evaluating system and the facilities of the system used to implement the course. It also subsidized some important decisions of the Ministry of Education and Culture and Brazil Open University about offering new undergraduate course in the country. In the second semester of 2009, a Public Management Course started in the same bases of this pilot project. This study was supposed to support improvements on this new project too. The Federal University of Lavras is offering this new course in six new municipalities, and the "pilot project" on Management finished in the middle of 2011. Nowadays, the National Institute of Educational Studies – INEP is evaluating every distance course within Brazil to offer Accreditation regarding the framework stated at document References of Quality for Higher Distance Education [27].

Since the experiences addressed in this chapter were valuable to improve the quality of the courses, new researches at CEDERJ consortium, within the new courses offered by Brazil Open University and other broad initiatives on distance education should be made to assess the quality of the courses offered nowadays. It is also recommended that new researches should be carried addressing the Accreditation in public and private institutions in order to evaluate the appropriateness of the model and the difficulties faced by the institutions in order to attend quality standard desired for distance education.

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## Appendix

Evaluation Topics	1	2	3	4	5
<b>1. Regional Poles Infrastructure</b>					
Secretary attendance					
Studying rooms					
Physical space for tutorial					
Informatics Labs installations					
Equipments in the informatics labs					
Biology Labs installations					
Equipments in the Biology Labs					
Physics labs installations					
Equipments in the Physics labs					
<b>2. Platform</b>					
Information update					
Forum					
Downloading					
Tutorial rooms					
Support for the platform access					
Speed of access to the information in the platform					
<b>3. Didactic Printed Material</b>					
Clearness of the Printed Material					
Visual aspect of the booklets					
Illustrations applicability					
Lateral notes utility (boxes and short sentences)					
Motivation get from the booklets content					
Relevance of the proposed exercises					
Relation between the subject objectives and the activities indicated					
Didactic material in the platform					
Relation of the material available at the platform and the printed material					
Media elements (links, videos, images and animation) at the platform					
Contribution of the media elements for the learning process					
<b>4. In Loco Tutorial</b>					
Constantness of the tutors					
Punctuality of the Tutors					
Level of knowledge of the tutors					
Contribution of the tutorial for students learning					

<b>5. At Distance Tutorial</b>					
Timetable for distance tutorial attendance					
Interest and attention given by distance tutors					
Level of knowledge about students doubts					
Contribution for learning					
<b>6. At Distance Evaluation</b>					
Contribution of the topics addressed for in deep learning					
Correlation between the test questions and didactic material					
Language clearness in the saying of the questions					
<b>7. In Loco Evaluation</b>					
Contribution of the addressed topics for in deep learning					
Correlation between the test questions and the didactic material					
Language clearness in the saying of the questions					
<b>8. Students Assiduity</b>					
Monthly assiduity in using didactic material at the platform					
Monthly participation in the in loco tutorial					
At distance tutorial monthly					

Source: Vilas Boas et al (2007: 7-8)

**Table 1.** Evaluation topics included in the evaluation questionnaire

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