ABED
ASSOCIAÇÃO BRASILEIRA
DE EDUCAÇÃO A DISTÂNCIA

Ministério da Educação
GOVERNO FEDERAL
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PAÍS RICO É PAÍS SEM POBREZA

# CensoEAD.BR

## ANALYTIC REPORT OF DISTANCE LEARNING IN BRAZIL

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**Translation**
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# Summary

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## CENSOEaD.BR 2011 - Errata

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| **Sumário executivo** | **XX** | 2ª coluna – i tem | O 1º parágrafo deve ser substituído integralmente por -> | Em relação às matrículas em EAD, das 196 instituições respondentes em 2011, a maioria ocorreu nas regiões Sudeste |
| | | 2ª coluna – 2º § | Substituir na íntegra da 1ª à 7ª linha (em parte) | Em 2010, os cursos autorizados corresponderam a 29% do total de matrículas. Em 2011, esses cursos corresponderam a 22% do total. Apesar da redução de 7% de um ano para o outro, observou-se um crescimento de mais de 80.000 matrículas nos cursos autorizados. Esses dados devem levar em conta..... |
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# Forward

ABED's Board of Directors proudly presents to Distance Learning professionals and institutions, and to society in general, one more statistical report of flexible learning activities, distributed and carried out in Brazil during 2011. Fulfilling its mission as a scientific society, it promotes distance learning as a democratizing and effective training modality for young people and adults, with quality and integrity. ABED held conclaves such as conferences and seminars, virtual and printed publications, and through its website it maintains a constantly updated collection of helpful information and communications for lay and professional educators.

This volume is another contribution to it, with the motive of making a status "diagnosis" of the distance learning area in Brazil. Its preparation and operation represent an enormous effort, especially in a tropical culture in which procrastination and disregard of the duty of entities using of public funds to account their activities.

Therefore, we must applaud the educational institutions, companies and independent teachers who answered the survey this year. Those who claimed they would not respond to our questionnaire because of having responded the INEP-MEC survey did not convince us, because as the ABED's instrument is exclusively about Distance Learning, in great details, INEP's instrument only partially deals with Distance Learning. My special thanks goes to Teacher João Carlos Teatini, Coordinator of Sistema Universidade Aberta do Brasil [Brazilian Open University System] - UAB, important public body engaged in distance learning, which made several attempts to stimulate UAB institutions to complete ABED's questionnaires.

We do not know another national effort in the world to collect and analyze all academic and corporate activities of Distance Learning in a particular region. It is strange that such surveys are not standard practice in countries with distance learning activities: without this data, how the government and international bodies could make decisions? How educational and business institutions know how they situation are compared to others? How suppliers of Distance Learning products and services may know the market trends? Mere intuition is not always a good substitute for data.

Interestingly, in this report, which devoted some depth to the profile of distance learning professionals in Brazil, a phenomenon that repeats the beginning of Information Technology (IT) in the world: the fact that the first generation operating in the area consisted of individuals trained in various fields of human knowledge, because there were an insignificant number of undergraduate or graduate courses of this subject. By the time and with the area's growth, there were courses and people particularly trained in the area. As expected, the same natural development is happening in Brazil: the beginning of the great Distance Learning expansion by the fact of having collaboration of people graduated in Sciences, Engineering, Social and Human Sciences, and in Arts. A healthy start, that allows us to imagine a future community of skilled and creative Distance Learning professionals in the country.

We must acknowledge here the great effort of Teachers Ivete Palange and Consuelo Fernandes for the planning, capturing and analysis of data, supported by ABED headquarters' team: Sérgio Krambeck, Alessandra Pio, Bruna Madeiros, Mauricio de Lima Aguiar and Beatriz Roma Marthos. To all these professionals, one big "thank you" from ABED's Board of Directors and from the readers of this new CensoEAD.Br.

Fredric M. Litto
ABED's Chairman

# Introduction

In an ever changing world, the ongoing educational process and professional formation is essential, setting the distance learning as a vital strategy. In recent years, the significant growth of this educational modality in Brazil can be seen by its use in universities in regular full undergraduate courses, in graduate courses or even in specific formation subjects. Other educational institutions have also developed distance learning courses for all levels and areas of regular education and produced and deployed non-formal and corporate courses for their staff formation. The number of institutions and companies focused on developing distance learning products and services has increased in order to meet the demand for new courses. In this scenario, it was possible to observe an increase in the number of independent teachers (i.e. ones without institutional connections) working with students in distance learning courses.

With the new communication and information technologies, through the convergence of media, such as printed material, radio, television, video, the Internet or video conferencing, distance learning has been building diversified educational opportunities that are equal to or even surpass the results of onsite education. There is an increase of students interested in this type of formation that encourages the development of experiences in this modality of courses in different areas.

ABED – Associação Brasileira de Educação a Distância (Brazilian Association for Distance Learning) – fulfills its mission by contributing as a national forum for discussion and presentation of studies and researches related to the area in Brazil. Obtaining, organizing and disseminating quantitative information and presenting qualitative data analyses, in reference to the direction of education and distance learning, comprise the technical interest of Abed in providing a compass that indicates where we are in the practice of this teaching modality, allowing a glimpse of some of its trends for the future. Furthermore, by making available the quantitative data gathered, other researchers and people interested in distance learning have the opportunity to provide their own analyses and inferences.

Data and information are essential for the scientific analysis, although people and institutions do not always have the means to compile and make them available in Brazil, because it involves systematic efforts and limited time. Obtaining information to compose this Census 2011 and the previous ones involves a persistent and competent work of a committed team of professionals, without which this result would be impossible. ABED's challenge, by performing this census each year, is to encourage institutions and companies to organize and grant the information of its practices in education and offer them to anyone interested in an overview of the institutions involved in distance learning. The commitment of each party and the resulting general information are contained in this publication, which seeks to encourage reflection on distance learning in the country and on its path through the years.

ABED expects that such quantitative information, qualitative analyses, projections and detailed assessments can help indicate where we were, where we are and where we are going, and noting progress in the educational field. Data and information offer greater safety in decision-making, whether for institutions, companies, professionals, or even the government and regulating agencies, to establish guidelines for educational policies.

As a scientific institution affiliated to the *Sociedade Brasileira para o Progresso da Ciência* (Brazilian Society for the Improvement of Science), an authentic representative of the knowledge field of distance learning in the country, ABED is honored to announce the publication of Censo EAD.BR 2011, with information about the survey, methodology, results of data collection and a qualitative analysis. In addition, it makes available the organized information ABED collected that may be used by the interested parties to perform new studies and analyses.

Fredric M. Litto
ABED's Chairman

# Presentation

The published survey report of the 2011 Brazil Distance Learning Census is structured in five parts.

Part I – Information about the survey process, which includes variables, instruments and methodology.

Part II – Census' composition and database, which shows the scope of the survey and indicates the number of responding institutions and their distribution according to the geographic region where they are and also the institution's size. Moreover, it presents a reflection on the process of data collection and a comparative analysis related to the respondents' characterization in 2010 and 2011.

Part III – Overview of distance learning in Brazil in 2011, which explores aspects related to the evolution of this modality in the 2010/2011 biennium, the credibility assigned to it by its users, and the characteristics of students served by it, as well as institutions that have chosen it as a way to provide education to the interested public through the courses offered.

Part IV – Distance learning professionals, which presents information related to distance learning professionals from the point of view of institutions, exploring issues related to the number of professionals, the type of activities they develop, and employment connections, among others.

Part V – Independent teachers and suppliers of services and products, which covers important aspects for the study of this educational modality. It refers to the supply of services and products and configuration of the independent teachers' work in the distance learning context.

In addition, from the questionnaires applied, this document presents attachments with the systematization of the information concerning questionnaires applied to institutions in general, suppliers of services and products and independent teachers. The list of names of responding institutions and the person in charge of the information is also made available.

# Executive summary

The executive summary presents the analysis results of the key information of the 2011 Census respondents. The context, organization and detailed analysis of the information are in the main document and its attachments.

## Distance learning institutions

Educational institutions, corporate and market institutions and independent teachers were contacted to participate in the 2011 Census on a voluntary basis.

The 2011 Census invitation was provided by an ABED's digital report that was sent by email for **1,424** institutions in March 2012. Besides, a research report was available at ABED's official website for the interested parties to request their participation, whether the invitation had already been sent or not. By the end of May 2012, 231 valid questionnaires were obtained, corresponding to 179 institutions which develop courses, 17 which are exclusively suppliers of services and products and 28 independent teachers. More than half of the institutions that have participated in the 2010 Census took part in the 2011 Census as well.

Most of institutions that did not respond to the 2011 questionnaire have indicated lack of time, and when inquired if they would be willing to respond to the 2012 Census, in 2013, most replied affirmatively.

The set of respondents to the 2011 Census is mostly composed of large educational institutions of private education with profit motives, located in the South and Southeast of Brazil, which mainly develop authorized courses. In spite of this, there were institutions from all regions in Brazil, of all sizes and developing various distance learning actions.

Concerning the respondents, 69 institutions (35%) have indicated that they develop services and products, but only 27 have filled out the suppliers questionnaire (14%). Only 17 of these develop *only distance learning services and products* (8.5%), and almost all of these companies are located in the southeast region.

In 2010, besides all types of courses, 4.7% of the institutions have developed distance learning services and products, while this rate has reached 12% in 2011. This increase may indicate a tendency for institutions to develop all types of actions in distance learning, from courses to services and products.

In 2011, 44% of the institutions have developed only one type of distance learning course, the majority of which were authorized courses (28%). And 19% of the institutions have developed authorized courses along with non-formal and/or business courses.

## Enrollment, conclusions and dropouts in institutions

In 2011, regarding enrollment in distance learning, from 196 responding institutions, most of them occurred in the Southeast and South (379,800), and followed by the Midwest (92,509), Northeast (17,663) and North (6,223).

In 2011, 779,078 enrollments in authorized courses have accounted for 22% of total enrollments, while the authorized corporate institution courses (38,809) have accounted for 1% and enrollments in non-formal courses (2,771,486) accounted for 77%. Besides, there was an enrollment increase of 44% in non-formal courses and decreases of 7% in enrollments in authorized courses and 37% in corporate courses in 2011. These data should take into account differences of classification in the types of courses between the 2010 and 2011 Censuses. Therefore, it is important not to see this difference as a reduction in attendance in distance learning, whether in corporate institutions or in the expansion of service by non-formal courses, because many courses that were classified as corporate previously were called non-formal courses by many corporate institutions in 2011.

Most enrollments belong to private institutions, 60.5% of which are in those with profit motives and 14.5% in non-profit institutions. Enrollments in public institutions have accounted for 15% of the total, 8% in federal public institutions and 7% in state public schools. The educational foundations have 2% of the enrollments, 4% in courses offered by the State Secretariats, and 3% in institutions of the "S" system.

The largest number of enrollments in authorized courses is associated to large private institutions, with profit motives, located in the South, that concurrently develop on-site, distance and semi on-site courses, in undergraduate programs, in the bachelor and teacher license degree areas. In corporate institutions, the largest number of enrollments is concentrated in State Secretariats, located in the Southeast, in specialization graduate courses.

As in the case of enrollments, the highest number of graduated students is also associated with private institutions, with

profit motives, located in the South. However, concerning the educational level, while the highest number of enrollments is in undergraduate courses in the bachelor and teacher license degree areas, the largest number of students that graduated is in specialization and undergraduate courses, at the technological level.

Regarding non-formal courses, the highest number of enrollments and conclusions is in improvement courses, in corporate and private institutions, with profit motives, located in the Southeast.

The area that has obtained the most enrollments and conclusions in non-formal distance courses was Social Sciences in Business and Management, followed by Education and Computer Science. Comparing this to enrollments in areas of the authorized courses, the first two areas are the same (Social Sciences and Management and Education). On the other hand, in non-formal courses the Computer Science area is ranked third, while in authorized courses in this area the volume did not reach 2%.

Most institutions have answered that there was an increase in enrollments in 2011, in authorized, non-formal and corporate courses and in mandatory subjects. There is also great expectation for enrollment increases in distance learning for 2012-2013.

The institutions have also informed that the average dropout rate in distance learning courses has varied nearly 20%, being lower in mandatory subjects, with 17.6%, and higher in non-formal courses, with 23.6%.

## Distance learning courses and obstacles in institutions

Most institutions have reported that they produced and implemented 1 to 5 courses in 2011, and most of them were mandatory courses in distance learning. Besides, most distance learning courses were produced by large institutions, which developed them by themselves or along with other institutions, and are located predominantly in the Southeast.

Regarding the time for producing the courses, it takes about 1 to 3 months, without counting the specific types. This estimated shorter time in production can be explained because of the shorter duration of non-formal and corporate courses.

In 2011, the total of courses offered in distance learning was 9,065, 3,971 of which were authorized/recognized courses and 5,094 were non-formal courses. The largest number of courses offered in distance learning is from private institutions that produce their own courses. The largest number of courses purchased by commercial companies is offered by private non-profit institutions.

Most distance learning recognized/authorized courses are from authorized institutions, especially in subjects which are part of on-site courses of undergraduate degrees and specialization graduate courses. Although Education and Social Sciences (Business/Management) are the main areas of authorized courses, others such as Health Sciences, Engineering Computer Sciences and Services are increasing their number of courses over the years.

Most recognized/authorized and non-formal courses are from institutions located in the Southeast. The South institution's are second in recognized/authorized courses, while the Midwest is third in non-formal courses. Most authorized/recognized courses are from authorized institutions, and most non-formal courses are from non-authorized institutions. Most corporate institutions which develop authorized/approved and non-formal courses are also located in the Southeast region.

The authorized/recognized and non-formal courses are intended for a more adult and mature audience, either in institutional training (undergraduate and graduate courses) or in continued education (improvement and updating).

The non-formal courses are developed by large size companies, but the micro and small companies also have a significant offering.

The highest range of attendance from non-formal courses is in the services area and they are mostly from non-authorized institutions, followed by the Business and Management, Education and Law areas.

Most distance learning students are female, except in the corporate courses, where the majority is male. In comparison to the data obtained in the 2010 Census, there was a slight increase of the female population in all types of courses, around 6% in authorized courses, 1% in non-formal courses, and 2% in corporate courses.

Most students of distance learning study and work, and the highest percentage of students who do not work are attending the mandatory subjects in distance learning from on-site courses.

Between 2010 and 2011, there was an increase of investment in authorized courses, a maintenance of investment in mandatory subjects and a decrease of investment in non-formal courses. There was a general increase of investment in most responding institutions. Considering all types of courses, authorized, non-formal, corporate and mandatory subjects, the investments in 2011 were focused on course/module or content development, staff hiring, technologies and innovation.

The largest obstacles were the student distance learning dropouts, educators' resistance to the distance learning modality, organizational challenges of an on-site institution that starts offering distance learning, and course production costs.

## Professionals who work with distance learning

Most of the institutions' teams who develop distance learning are centralized. Most institutions that have decentralized teams do their work through different processes.

The largest number of professionals that work with distance learning is found in public companies (3,559), and in private entities, profit or non-profit table ones (2,256). The educational departments have 1,651 employees.

Regarding only those professionals who have a doctorate or master's degree, the highest number of doctors and masters is found in the public institutions. From the distance learning professionals who work in public institutions, 22% have a doctorate, 20% have a master's degree and 12% have expertise.

In private institutions, of all the professionals that work with distance learning, 9.5% hold doctoral degrees, 23% are masters and 25% have expertise. In the institutions of the "S" system 1% has a doctorate, 2.5% have a master's degree and 70% have expertise.

From professionals who have a doctorate in distance learning, 50% are located in the Southeast, and 38% are located in the southern region, 88% are connected to large companies, and 7% to medium-sized companies. From professionals who have a master's degree in distance learning, 51% are in the Southeast and 23% are in the southern region, and 82% work in large companies. From professionals who have expertise in distance learning, 71% are located in the Southeast and work in large companies (79%).

Concerning those responsible for distance learning teams, most of them have a higher level, with a master's degree, expertise or doctorate. Most holders of doctoral degrees work in public companies – the highest percentage of masters in private companies, and experts in companies in the "S" system.

Regardless of the region where the companies are located and their size, they are concerned about increasing the qualification of the professionals who work with distance learning, and a small emphasis can be seen on training aimed at planners and tutors.

Most institutions hire professionals for all distance learning teams by free selection, through resume or interview. The selection by public test is held in nearly 20% of them, and around 15% choose by recommendation of another employee. There is no significant difference in employees selection for different teams.

Concerning admission and dismissal of distance learning professionals in 2011, there were two times more hirings than layoffs.

Most institutions (30%) pay, between 26% and 50% of distance learning *management team* professionals, up to R$ 1,000.00; thirty three percent pay between 26% and 50% of its administrative professionals from R$ 1,000.00 to R$ 3,000.00; and 10% of them pay most professionals this salary range as well.

The *planning team* professional salary matches the average range of R$ 2,000.00 to R$ 4,000.00.

The *production team* employees have different salaries, ranging from less than R$ 1,000.00 to over R$ 5,000.00, and the main range is from R$ 1,000.00 to R$ 2,000.00. Besides, the range paid to the lowest number of professionals is over R$ 5,000.00.

Most *implementation team* professionals receive between R$ 1,000.00 and R$ 2,000.00, and from 25% to 50% of professionals in this area receive from R$ 4,000.00 to over R$ 5,000.00.

Regarding **technical support** professionals, there is a big difference in their salaries. Most of the responses to up to 25% of the professional salaries match the range of R$ 2,000.00 to R$ 4,000.00. And from 26% to 50% of the employees are in the range from R$1,000.00 to R$ 3,000.00.

## Teams who work in distance learning

The management team has 5,632 employees, 73% of which are effective, and 27% outsourced. The highest number of professionals is bounded to academic service and support/administrative assistant duties. Regarding the skills, those responsible for "informing about the courses" are the greatest in number, followed by "record and enroll students", "certify and issue certificates to students" and "help interested customer's employees". Besides, most of the administrative employees are female and are 20 to 40 years old.

In the *planning and production of distance learning projects,* there are 4,390 professionals, 81% of which are effective, and 19% outsourced. Fifty percent perform the role of content experts, 8% are planners or pedagogical analysts, 7% are instructional designers, and 6% are *web designers*. Most *planning teams* are between 31 and 40 years old and are female. The most indicated skill for this team is planning the educational development of courses and its validation.

The skills most often reminded by the *production team* were producing educational resources, upgrading distance learning courses, increasing teachers', mediators' and facilitators' abilities for the courses, and adapting courses to customer needs. The production team is mostly female and is 20 to 30 years old.

In the *implementation team* of which, there are 23,878 employees, 77% of which are effective, and 23% outsourced. The tutor position is the one which has the greatest number of professionals, corresponding to 41% of the total, while the teacher position corresponds to 23%, and the educator who teaches at the remote student support site, to 12%.

Regarding the number of students reached by the course or the subject, the majority said that there are 36 to 50 students per teacher/lecturer.

As for the direct service to students concerning questions about course content, 40% responded that it is performed by an intern, graduate or undergraduate student who answers some questions and sends others to a course or subject professor. In 26% of the cases, the answers to questions are given by content experts that may or may not be teachers responsible for study materials, while in 20% of cases the answers are given by an educator (mediator, facilitator, and monitor) that forwards the questions to the subject professional. Only 1% performs electronic service with a standardized answer system to the most frequently asked questions.

Most institutions that have on-site service centers have reported that student attendance is only required to perform tests.

Regarding the skills required from the implementation team, the most popular ones were: supporting the lecturers responsible for courses, mastering written communication, servicing students on problems concerning course methodology and interacting with other educators that are involved in the course.

Most implementation team professionals are female and between 31 and 40 years old. The *technological teams* of distance learning projects have 1,174 professionals hired, 81% of which are effective, and 19% outsourced. The technical support position is filled by the highest number of professionals, while the programmer position stands in second place.

This team's main skills are: providing support to lecturers and course coordinators and solving urgent problems, such as system and AVA failures. Most technology team professionals are male and between 20 and 30 years old.

## Suppliers of products and services

In 2011, 26 responding institutions were considered as suppliers of services and products, and 10 (38%) of them were also respondents in 2010. From 26 respondents, 57% offer products and services in distance learning without implementing courses, and 43% offer services and products both to distance learning and on-site courses.

The suppliers' service is aimed at large companies, and there was an increase in the service quantity, nearly 10 to 20%, in 2011, in comparison to 2010.

The largest amount of services and products offered were complete distance courses, production of content for courses, on-site courses and videos. The products considered the strongest by the supplier companies were content production, instructional design and media production.

The main fields areas of expertise for the service of companies were in Humanities, Education, Social Sciences: Business/Management, Health Sciences: Nursing and Medicine, Social Sciences: Law, Accounting, and Business.

Regarding its distance learning teams, most work with centralized teams and with employment connection, increasing the ability of their effective employees. Training fellows and interns was the most mentioned item by supplier companies.

They have 741 employees working in distance learning, which are divided into teams: administration (31%), planning (15%), production (39%), implementation (10%) and technical support (5%). Twenty four percent of employees have a doctorate or master's degree, or of a specialization in their academic education, nearly 7.5% of which are in the distance learning area. Forty nine percent of employees have undergraduate degrees, 33% of which are focused on education, and 67% on a different area.

Most members of the teams have an undergraduate degree, 53% of which are in the administration team, 72% in planning, 85% in production and implementation, and 91% in technical support. Most companies select their employees by free selection (by resume and interview) and by recommendation of other employees.

The teams from companies that supply number of distance learning services and products are predominantly male, between 21 and 40 years old, and with salaries ranging from R$ 2,001.00 to R$ 3,000.00.

Comparing the amount of admissions and layoffs, there was a positive result concerning the increase in the number of distance learning professionals, regardless of the teams to which they belong.

The main obstacles of suppliers regarding distance learning were technological solution costs, course production costs, and IT technical support to customers, in addition to hiring skilled workers. Most of the suppliers of distance learning services and products had an average profitability of 20% in 2011, and have an optimistic outlook for 2012, when they are expecting higher growth in profitability, about 29% on average.

## Independent teachers

Most responding independent teachers are located in the Southeast, although there was the participation of independent teachers from all regions in Brazil.

Many teachers are graduated in Pedagogy (25%), in a variety of training areas. All of them have concluded higher education; most of them have a master's degree and a doctorate, and most also work with on-site education. Fifty seven percent of teachers have an experience of three to ten years in distance learning activities, and 25% of them have over 10 years of experience in distance learning activities.

The absolute majority of distance learning courses in which these teachers work is transmitted over the Internet.

There are 11,209 students for the 250 courses developed by independent teachers. Most distance learning courses belong to the pedagogical and social sciences areas, and are distributed between the upgrade and improvement ones, with courses that last 21 to 220 hours.

The student dropout rate is 13.7%, and the leading cause of dropouts corresponds to lack of time by students, followed by traveling and other activities at work and the non-adaptation to the distance learning methodology.

Most teachers expect to teach students with special needs, and 25% of them said they have already performed this type of service. Most independent teachers use free LMS.

In relation to servicing students, email is the most mentioned asynchronous tool, although other interaction features have been used for synchronous communication, such as *Skype*, *iPhone*, *chat*, *MSN* and the telephone, which indicates a concern about using these two means of communication.

For most independent teachers, distance learning is growing in a comparison between 2010 and 2011, either in the number of students or of courses. The main obstacles to distance learning mentioned by independent teachers are technical and IT support for the participants, student dropout, student resistance to methodology, and competition with other institutions. However, independent teachers believe that the obstacles will be smaller, or at least the same faced in 2011, for distance learning courses development in 2012.

# 1 General information

## Objectives

The main purposes of the publication of the 2011 Brazil distance learning Census are making available the data obtained to all interested parties and providing a qualitative analysis of the activities in the broad sector of distance learning, including all educational levels of the formal education system and various non-formal education initiatives.

Based on this objective we seek:

- To create synergy in the academic distance learning environment, to instigate discussion and to encourage the planning of actions in order to solve common problems for the entire distance learning community.
- To provide important data for researchers and those interested in distance learning so they can study more specific topics of the industry.
- To promote integration and dialogue between educational institutions, governments, regulating entities, associations and representatives of the actors from the distance learning environment.

## Scope of Census

The data collecting process to compose the 2011 Brazil distance learning Census sought to involve the universe of educational institutions, suppliers of products and services and professionals who have developed activities directly or indirectly linked to distance learning in the country in 2011.

To this end, we have performed a survey of potential participants with the following categories:

- Institutions accredited by the National Education System (Ministry of Education and the National Education Council), in the levels of basic education, undergraduation and graduate.
- Formal and informal educational institutions which offer non-formal courses, whether or not associated to ABED.
- Institutions that operate in the corporate education scope.
- Suppliers of distance learning services and products.
- Independent teachers or those who work in distance learning, but have no direct or indirect connection with the educational institutions of this educational modality.

### Direct and indirect actions

Direct actions involve the performance of courses in which at least 30% of the content is developed in distance activities. From this minimum percentage, two distance learning course types are being considered:

- The distance learning courses, in which more than 70% of the content is developed through distance activities that reach students via printed materials, audio, video (recorded or live), satellite, or computer technologies with synchronous or asynchronous activities. When these 70% are transmitted by print media, the designation received is distance learning course with postal delivery; if at least 80% of the content is transmitted over the Internet, courses are designated as online courses;
- Blended courses, or hybrids or semi presence courses combine on-site with distance learning activities, whose ratio ranges between 30% and 70% of one activity in relation to the other.

In addition to these courses, the Census provides data on the distance learning courses taken in undergraduate courses whose institutions use the permission granted by the educational legislation to have up to 20% of the curriculum in distance learning mode.

On the other hand, the indirect actions involve the supply of products (learning objects, text, raw or pedagogically treated content) or services (site hosting, tutoring, and content production, among others) that enable the development of distance learning courses or make it more effective.

## Invitations and participation of institutions

**The 1,424** public and private institutions included in the association direct mailing were invited by ABED's digital invitation sent by email to participate in the 2011 Census. Moreover, ABED provided a report about the survey, in its own website, for those interested in participating in the 2011 Census, regardless of the invitation.

The institutions invited to answer the 2011 Census, or interested in doing so, that presented the answers requested, would not only have the data from the institution and the

respondents published, but also would receive the printed publication and an enrollment to the 18th International Congress of Distance Learning free of charge.

The number of institutions that accepted participating in the 2011 distance learning Census was **208**, corresponding to 15% of all invited institutions. The number of respondents, i.e. those institutions whose data were considered valid, corresponded to **196**, which means a recovery of **14%** of questionnaires answered by the contacted institutions as shown in Table 1.1.

**Table 1.1** Statement of the institutions invited to participate in the 2010 Brazil distance learning Census and the respondents

| Number of institutions | | |
|---|---|---|
| Invited | Acceptors | Respondents |
| 1,424 (100%) | 208 (15%) | 196 (14%) |

The participation of institutions that operate within the distance learning scope depends on the interest of each of the responsible people, their ability to organize the required data and the willingness to share information with other partners for the development of actions, products and projects for this educational modality. In summary, it is a collaborative and voluntary attitude of each institution.

The data collection dynamics of the 2011 Census shows the efforts made by ABED to gather information and the difficulty faced in order to obtain participation of some institutions:

- In 2010, 894 invitations were sent by email; in 2011, there were **1,424**, an increase of 59% in invitations sent, compared to 2010, which was achieved because of the efforts and dedication of the staff involved in data collection for the Census.
- From the first contact by email, **1,250** phone calls were made in order to obtain confirmation on invitation receipt and the institutions' interest in sending its information.

The results of attempts to contact institutions are presented in Table 1.2.

According to the former table, it can be seen that 501 emails were sent again to the institutions which responded to the contacts performed or whose data were corrected.

In the 2010 Census, ABED had obtained a return of information from 203 respondents and processed data from 198 of them, corresponding to 22% of the institutions contacted. In 2011, ABED has obtained return of information from 208 institutions, representing 15% of respondents from the 1,424 institutions contacted.

If we compare the number of respondents in 2010 and 2011, despite all the effort this past year and the expansion of the contacted universe, there was approximately the same number of respondents.

It is also noteworthy that some questionnaires were not used due to presenting invalid data (contradictory, incomplete and repetitive data, among others) or having reached ABED after deadline and after the closure of data processing and analysis. In the case of 12 institutions, the decision was made because they did not provide most of the requested data. Their answers accounted for less than 10% of the questions asked. Respondents were contacted and attributed the absence of answers to lack of data, bureaucratic impediments, the fact of being part of consortia so they do not have the requested information, and problems with information due to strikes, among others.

There were different attitudes towards the information provided: whereas some institutions have readily volunteered to fill in the questionnaires and send the information requested within the prescribed period, others have said they would not answer the questionnaires due to lack of time or interest in organizing the requested data. Some of them have indicated the provision of such information to government institutions as a restriction to participate in the Census. Others have reported that they do not develop distance learning anymore; and some institutions have answered they do not have data because they are beginners in the area.

Concerning this last group of 38 institutions, a total of 27 answers was obtained by email, in which the people in charge justified, spontaneously, the non-acceptance of the invitation, such as synthesized in Table 1.3.

**Table 1.2** Results of attempts to contact institutions invited to participate in the 2011 Brazil distance learning Census

| Results | Number of institutions contacted | Percentage (N = 1,424) |
|---|---|---|
| Contact not performed, telephones always busy. | 113 | 8% |
| Contact not performed, wrong number or email. | 91 | 6% |
| Inability to contact due to change of telephone number or email. | 53 | 4% |
| Obtainment of telephone number or email updated by survey and resending of email. | 27 | 2% |
| Resending of invitation by request of contacted person. | 474 | 33% |
| Impossibility of telephone contact with the person in charge for distance learning, for being unavailable (in a meeting, traveling etc.) at the time, even after ABED has requested them to return the call. | 50 | 4% |

**Table 1.3** Reasons spontaneously declared by institutions for non-participation in the 2011 distance learning Census

| Justification | Number of institutions |
|---|---|
| Does not develop distance learning | 1 |
| It was discredited in distance learning activities | 1 |
| Does not work with distance learning | 4 |
| Had few courses and students in 2011 | 1 |
| Begins distance learning activities in 2012 | 5 |
| It is in implementation stages | 2 |
| Does not have the intention to participate (lack of time, lack of interest, document complexity) | 5 |
| Declared doubt in participating in the 2011 Census. They only asked time to decide | 8 |
| **Total** | **27** |

From the participants of the 2011 Census, **48%** participated in 2010, which means that a little more than half of those who participated in 2010 did not take part in 2011. In light of this fact, the question that arises is: why the institutions that participated in the 2010 Census did not take part in the 2011 Census?

In order to investigate the reasons for invitation rejection, an email was prepared with two questions for the institutions expressing their views. Through this document, it was possible to obtain information on the reasons for non-participation in the Census, from 200 institutions (16% of total), as presented in Table 1.4.

It is important to note that two alternatives presented in the email were not mentioned by any respondents as reasons for their non-participation in the 2011 Census. They are: "Do not consider the publication of the census relevant" and "Do not trust confidentiality of information provided". This means that no one who refused to participate in the Census claimed irrelevance or failure to respect the confidentiality stated by the Association in the instrument.

It is also important to note that, among the alternatives presented, the highest number of respondents attributed their non-participation to lack of time (21%) and forgetfulness and instrument complexity (10%).

**Table 1.4** Reasons declared from alternatives presented, after consultation, by institutions for non-participation in the 2011 Census

| Reason for invitation rejection | Number of answers* (N = 270) | Percentage |
|---|---|---|
| Lack of time (one month is not enough time to answer) | 58 | 21% |
| Forgot to answer | 28 | 10% |
| Did not consider Census information relevant | 2 | 0,7% |
| Questionnaire complexity | 28 | 10% |
| Format in Excel (if it was online it would be answered) | 23 | 8% |
| Too much work to organize information | 17 | 6% |
| Did not receive invitation | 19 | 7% |
| Lack of interest of my institution to participate | 4 | 2% |
| Inadequate collection period (March-April) | 12 | 5% |
| Already answered once. Answering every year is stressful | 3 | 1,3% |
| Others | 78 | 29% |
| **Total** | **272** | **100%** |

* Some institutions indicated more than one reason for non-participation.

From those who gave other reasons, Table 1.5 presents a synthesis.

In the former table, it is observed that the higher number of answers to the item *Others* was the non-participation due to not working with distance learning (25%) and organizational problems in the distance learning team (19%). These organizational problems range from change of the person in charge, the responsible for the answers going through diseases, up to reorganization of the sector, among others.

Through this same table, it can be verified that 14% reported that the questionnaire does not fit the profile of the company, including public and corporate universities. Such institutions inform that they develop high school, technical and graduation courses, offer only subjects referring to 20% of distance learning allowed by legislation or still that they only provide courses without MEC's authorization. In this case, it should be noted that the questionnaire contained questions that included these aspects and that it was possible not to answer any question that the respondent did not have information for, that is, justification that does not fit the reality is questionable.

Attention was drawn to the fact that 14% reported that they did not participate in the 2011 Census because they were still implementing distance learning; they said they would participate in the next Census and they would answer the questionnaire that will be sent to them.

Regarding the second question, which asked non-respondents of the Census in 2012 to indicate their intention in responding in 2013, the responses listed in Table 1.6 were obtained.
By the table above, it can be seen that most of the non-respondents to the 2011 Census that responded the survey of reasons for their non-participation intend to respond the 2012 Census (81%), which indicates a positive attitude in providing information in the next year.

This availability is very important because the more institutions respond the Census, the more everyone has to win, and the distance learning picture and its trends in Brazil depend on those institutions directly involved with it. Knowing the moment and the trends of distance learning means recognizing the institution itself, choosing the paths for the development of projects and future activities and obtaining a foundation for scientific studies and surveys in the distance learning area.

**Table 1.6** Interest statement in participating in the 2012 Census (in 2013)

| Does it intend to answer the 2012 Census? | Number of answers | Percentage |
|---|---|---|
| Yes | 162 | 81% |
| No | 29 | 14.5% |
| Blank | 9 | 4.5% |
| **Total** | **200** | **100%** |

By investing in the Census, ABED's goal is to offer everyone safer conditions to tread their own way and to improve performance based on the quantitative and qualitative analysis of data from entities that work with distance learning. ABED fulfills its role by updating its registration of this kind of entities and spares no efforts in searching for contact and information from institutions.

Each institution chooses whether or not to provide information, and this certainly changes the whole picture. The respect towards this decision makes ABED work with the data available and, from there, it is expected that everyone understands that the limits of this analysis are due to the people involved in the process: institutions and their direct and indirect responsible people.

Suggestions for improvement of the census are always welcome, but the participation of each institution is essential. This publication provides the result of processing and the analysis of information obtained from the entities that were willing to participate and share their data with their peers.

A list with the participating institutions' contacts is available in the Attachment, and ABED is especially grateful to each one of them, for their effort and their willingness to collaborate to the development of this product.

## Survey methodology

### Eliciting possible respondents

The survey of entities that work with distance learning and that could participate in the 2011 Brazil distance learning Census was made from the sources listed below:

**Table 1.5** Reasons spontaneously declared, after consultation, by institutions for non-participation in the 2011 Census

| |
|---|
| ■ Institution does not work with distance learning anymore (25%) |
| ■ Institution inactive, temporarily or permanently (6%) |
| ■ Shall have information on distance learning only in 2012 (14%) |
| ■ Answers do not adjust to the institution's reality (14%) |
| ■ Organizational problems with the distance learning team: reorganization, few employees, diseases, change of members etc. (19%) |
| ■ Invitation did not arrive to the right person (6%) |
| ■ Did not receive invitation, because it was considered as spam (4%) |
| ■ Simultaneity with other events, such as the ones performed by MEC, Capes etc. (4%) |
| ■ Institution does not disclose confidential information |
| ■ Expansion of company (2%) |
| ■ Little time available (2%) |
| ■ Problems with questionnaire, such as format, extension etc. (4%) |

### Educational institutions

- List of educational institutions accredited and authorized by the National Council of Education to offer distance learning courses at the undergraduate and graduate levels.
- List of institutions accredited in the State Councils of Education and authorized to offer distance learning courses, at the levels of basic education, youth and adult education and vocational (technical) education.
- List of institutions cited in the Educational Census which offered distance learning courses.
- Institutions accredited as federal projects of Universidade Aberta do Brasil (UAB) and the Escola Técnica Aberta do Brasil (e-TEC) to offer distance learning courses.

### Corporate entities

- Companies with outstanding distance learning corporate education projects.
- Companies involved with the distance learning environment and evaluated in recent studies produced within the academic environment.
- Companies with corporate education projects listed by the Ministry of Development, Industry and Commerce (MDIC).
- Companies listed by class representative institutions, such as the Associação Brasileira de Educação Corporativa – ABEC – (Brazilian Association of Corporate Education) and the Associação Brasileira de Recursos Humanos – ABRH – (Brazilian Association of Human Resources).

### Market entities

- Companies and consultants with an emphasis on the distance learning market, presented as major suppliers of educational institutions or companies that work with corporate education.
- Teachers without institutional connections that develop distance learning courses.

The institutions were initially contacted by phone in order to identify the distance education person responsible for distance learning and they have received an invitation through ABED's digital report, by email. The Association also posted the execution of the census on its website, offering institutions and professionals not identified in the sources consulted the chance to participate.

## Survey variables

In relation to 2010, there was a reduction in the number of study variables in order to increase the probability of getting responses, due to the criticism made previously regarding its extension. The study variables determined by ABED for the 2011 Census were organized into four major groups:

- Profile of institutions involved with distance learning (Part II)

It represents the characteristics of the institutions participating in the Census involved with distance learning (legal nature, geographical distribution, and administrative category).

- Characterization of distance learning in Brazil (Part III)

It seeks to understand the evolution of distance learning in Brazil and its transformation from the point of view of institutions, courses offered and students. For that, the following topics were explored:

- **Distance learning in the 2010/2011 biennium:** number of enrollments, number of courses, obstacles faced in 2010 and possible obstacles to be faced in 2011, comparison between distance learning and on-site education (EP).
- **Profile of students serviced by distance learning:** gender, age, individual monthly income, occupational status.
- **Characterization of distance learning courses:** knowledge area, academic level, composition of classes, forms of acquisition or development, amounts charged.

- Professionals working in distance learning (Part IV)

In 2011, the variable **professionals working in distance learning** was elected by ABED's directors the most detailed investigation object. If the focus is distance learning with quality, the portrait of the professionals working in their development and implementation may provide clues for improvement. More important than or as important as technology are the professionals who use distance learning in their everyday work. Thus, the central topic of investigation regarding this variable was the **infrastructure profile of workers in distance learning** (numbers, work regime, profiles of teams, functional composition).

- Particular cases of distance learning in Brazil (Part V)

The supplies of distance learning products and services and independent teachers were selected as particular cases for the gathering and analysis of Census data.

The group that refers to suppliers of products and services includes the following topics approached in the investigation:

- Characterization (type and size of institution, obtained and expected growth).
- Services and products offered (courses, learning objects, technological infrastructure).
- Type of clients serviced (size of institutions, nature).

The group of independent teachers had as the focus of investigation:

- Characterization (profile, market time).
- Type of courses and products offered.
- Profile of students serviced (number of enrollments, gender, age, occupation).

## Instruments

The study variables have helped the preparation of three distinct questionnaires taking into account the different respondents, which are:

### Questionnaire 1: Institutions that offer authorized/recognized courses, non-formal and corporate courses

This questionnaire is destined to institutions that develop:

- Distance learning courses include that obtained authorization and/or recognition from the Ministry of Education, from the National and State Councils of Education. The authorized/recognized courses can be basic, technical and vocational, higher education, specialization, graduate, or research graduate levels – specialization or MBA.
- Non-formal distance learning courses, understood as those of continued education that are independent of regulatory entities' approval in order to operate. Examples of non-formal courses: improvement courses and professional qualification courses, among others. The certificate is issued by the institution and does not require MEC's or any other regulating body's acknowledgement. The non-formal courses can be free or paid and the institution can develop them, or only implement them via the acquisition of finished courses or through partnerships with other institutions. The non-formal courses are aimed at the public in general.
- Corporate distance learning courses for employees, clients and/or suppliers without costs for participants. The corporate courses can be developed by the institution or can be acquired by purchase or through partnerships or service provision of other institutions/companies. Companies or institutions that develop corporate courses for their employees and/or the employees of other companies/institutions and which charge for service provision are characterized as suppliers of distance learning products and services and were instructed to answer the questionnaire for suppliers of products and services.
- Distance learning subjects in authorized on-site courses that meet the legislation in force.

### Questionnaire 2: Institutions/companies that develop products and services, including distance learning courses, for other institutions and companies

This questionnaire is destined for institutions/companies which provide services and products for the development and implementation of distance learning courses by third parties. Service provision includes from the development of content to furnishing of LMS and servers for course implementation.

### Questionnaire 3: Independent teachers

This questionnaire is destined for professionals that develop distance learning courses without having connections with any institution or entity.

By analyzing the situation of its institution, each respondent picked the questionnaire(s) that should be answered. For example, an institution that develops authorized and non-formal courses and also offers products and services in distance learning could respond to two questionnaires (institutions that develop distance learning courses and suppliers).

## Organizing the data collection system

Although the 2010 Census was conducted in an online system for gathering information, due to cost savings, ABED has opted to carry out the 2011 Census through spreadsheets that were sent and returned by email, and then were tabulated and analyzed by survey organizers.

## Monitoring responses to questionnaires

Telephone contacts were performed with the institutions that did not respond to the questionnaire to verify if the digital report with the invitation had arrived and, in cases of misplacement, new invitations were sent. And, whenever possible, it was also tried to meet requests for postponing the deadline in order to obtain the answers.

Different formats of spreadsheets were made available to meet the reality of respondents, since the institutions do not always have updated software or rely on others that are free.

The doubts sent by the respondents by email or telephone were always answered promptly. In addition, samples of the at least 50% of the questionnaires sent by the institutions were monitored with attention, and, in case of doubt in the processing, respondents were contacted by phone or email to confirm the answers given or to resend them when necessary.

In order to obtain information from respondents in 2010 but not in 2011, a new telephone contact was held and, afterwards, by email, so that they could provide information. Twelve institutions were contacted, but only three of them have returned responses.

## Intersecting the variables

In order to facilitate the identification of some trends in the information, the variables of the data collected were of intersected. The analyses performed are based on the results of the intersecting of chosen variables; but the raw data was maintained in the Attachment, so that the interested parties could perform other studies.

## Quantitative and qualitative analysis of the results

The data obtained was analyzed in quantitative and qualitative ways. The qualitative analysis of quantitative data organized in tables provides the chance to make some hypotheses regarding the trends observed.

Concerning the confidentiality commitment in data provision, the identity of the institutions that participated in the survey was strictly preserved.

The results were organized into topics and tables that correspond to the studied variables: in each topic, there is an introduction that places the variables analyzed, followed by the data already organized in tables, and then the relevant comments.

# 2 Composition of the Census database

The base of the 2011 Brazil distance learning Census is composed of institutions that answered the questionnaires. Institutions are organizations that reflect quantitative and qualitative experiences of socioeconomic processes. They comprise rules and standards aimed at organizing interactions between individuals and between their organizational forms. They have a key role in the process of making the individual a member of society.

Initially, the institutions that would participate in this Census, from the legal point of view and according to the proposal by MEC, were classified as follows:

- *Federal public*: institutions maintained and administered by the federal government.
- *State public*: institutions maintained and administered by the governments of the states.
- *Municipal public*: institutions maintained and administered by the municipal public power.
- *Private or particular in the strict sense*: instituted and maintained by one or more physical or private law companies.
- C*ommunity*: established by a group of individuals or one or more companies, and also cooperatives of teachers and students, that include, in its maintaining entity, representatives of the community.
- *Confessional*: instituted by a group of individuals or by one or more entities with a specific religious or political orientation.
- *Philanthropic*: non-profit, using its surpluses in its main activities, for the benefit of a community or public authority that offers tax benefits.

Subsequently, the institutions that did not fit the classification of MEC were categorized as: educational foundation, educational or non-educational public authority, companies not exclusively educational and non-governmental organizations.

The responding institutions were classified as micro, small, medium and large companies, according to the size of the institution, and the reference table was the one from Sebrae.

Sebrae uses IBGE's criteria of number of employees as a *classification criterion of companies' size*, for bank purposes, technology actions, export and others.

**Industry:**

Micro: up to 19 employees
Small: from 20 to 99 employees
Medium: 100 to 499 employees
Large: more than 500 employees

**Trade and services:**

Micro: up to 9 employees
Small: from 10 to 49 employees
Medium: from 50 to 99 employees
Large: more than 100 employees

A classification according to the industry in which the institutions operate was sought, such as commercial, industrial, services, government and third sector.

These features allow us to analyze the institutions and actions that they develop in distance learning: non-formal courses, authorized courses, non-formal and authorized courses, and products and services in distance learning. There are institutions that only develop one kind of course and others that develop several types. The distribution of these companies by national regions allows us to check the trend of distance learning production centers, now that physical barriers were overcome by this teaching mode.

Moreover, according to the educational level in distance learning, it is important to check which courses these institutions, legally classified and according to their size, offer to the public and how they are concentrated concerning the geographic region. Here, another interesting trend was found in terms of the nature and size of companies, such as the type of course offered by small and large businesses. Another important point is to verify if the educational institutions develop only courses in distance learning or also offer on-site courses. This is an interesting aspect now that the issue of attendance is in discussion. What is attendance in a distance learning course? Being in a virtual space is being present in a course? Is it actually possible in virtual courses?

Besides the institutions/companies, the responding group had independent teachers who offered courses, but did not have institutional connections. Researching with this group of teachers aims to identify their profile and work characteristics that develop distance learning.

For the quantitative and qualitative analyses it was considered the database referring to **196** institutions whose information comprises this Census and the **28** independent teachers whose information was considered valid. The composition of the 2011 Brazil distance learning Census database is shown in Table 2.1.

The highest number of respondents is from institutions that offer authorized, non-formal and corporate courses (179). There were 26 institutions that responded to the questionnaire for suppliers, but just 17 of them were *only* suppliers of products and services. From the independent teachers contacted, 28 questionnaires were used. Thus, the amount of information that is present in the Census corresponds to data collection and analysis of 233 questionnaires responded.

Table 2.2 presents the distribution of the institutions involved in the 2011 Census according to the type of course or product offered to the public.

In 2010, most responding institutions (46.6%) had developed only authorized/recognized courses, but this percentage decreased to 28% in 2011. This reduction can be explained by the fact that 52% of the institutions included in the 2010 Census have not participated in the 2011 Census.

The institutions that developed only non-formal courses in 2010 have corresponded to less than half of the institutions that developed authorized/recognized courses (17%). In 2011, this ratio remained unchanged and the institutions that develop non-formal courses and that responded to the questionnaires are still less than half of the ones that develop authorized courses (11%).

In the 2011 results, it was possible to observe that 69 institutions (35%) indicated that they develop products and services, but only 27 completed the questionnaire for suppliers (14%). Of these, 17 companies develop only products and services

**Table 2.1** Composition of the 2011 Brazil distance learning Census database

| Type of questionnaire | | | Total |
|---|---|---|---|
| Institutions that offer distance learning courses | Only suppliers of products and services in distance learning | Independent teachers | |
| 179 | 26 | 28 | 233 |

**Table 2.2** Geographical distribution of respondent institutions according to the type of course/product offered to the public

| Types of courses, services and products offered | Regions | | | | | TOTAL |
|---|---|---|---|---|---|---|
| | N | NE | MW | SE | S | |
| Only courses authorized/recognized by a legal entity (MEC, CNE, CEE) | 3 | 8 | 6 | 19 | 18 | 54 |
| Only non-formal courses | 3 | 3 | 2 | 14 | – | 22 |
| Only corporate courses | – | 2 | 2 | 4 | 1 | 9 |
| Only distance learning products and services | 1 | 1 | – | 12 | 3 | 17 |
| Only non-formal and authorized courses | – | 3 | 3 | 11 | 7 | 24 |
| Only corporate and authorized courses | – | 2 | – | – | – | 2 |
| Only non-formal and corporate courses | 1 | – | 1 | 2 | – | 4 |
| Only non-formal courses and distance learning products and services | 1 | – | – | 3 | 1 | 5 |
| Only authorized courses and distance learning products and services | 1 | 1 | 2 | – | 1 | 5 |
| Only corporate courses and distance learning products and services | – | – | – | 2 | – | 2 |
| Only authorized, corporate courses and distance learning products and services | – | – | – | – | – | – |
| Only non-formal, corporate courses and distance learning products and services | – | 1 | 3 | 7 | 1 | 12 |
| Only corporate, non-formal and authorized courses | – | – | 4 | 5 | 2 | 11 |
| Only authorized, non-formal and distance learning products and services | – | | – | 2 | 2 | 4 |
| All kinds of courses and also distance learning products and services | – | 5 | 3 | 11 | 6 | 25 |
| **Total** | **10** | **26** | **26** | **92** | **42** | **196** |

for distance learning (8.5%), and almost all of them are located in the Southeast.

In 2010, the institutions that developed all kinds of courses, besides distance learning products and services, corresponded to 4.7% and in 2011 they corresponded to 12%, so there was an increase of 7% in this category. This data may indicate a trend of institutions in developing all types of distance learning actions, from courses to products and services.

In 2010, most responding institutions were located in the Southeast of Brazil (45%) and in 2011 this percentage increased 2%, corresponding to 47%. In the South, there was no change from 2010 to 2011, remaining in 21%; and the smaller number of responding institutions remains in the North, corresponding to 4% in 2010 and to 5% in 2011.

In 2010, 64% of the institutions offered only one type of distance learning course and the absolute majority of them worked with only authorized distance learning courses. In 2011, this percentage dropped to 44%, but the majority of institutions continue to develop only authorized courses (28%). It is observed that institutions developing both unauthorized courses and authorized and/or corporate courses account for 19% of the institutions.

Table 2.3 shows the information regarding the size of responding institutions and the type of course or product and service offered.

In 2010, most of the large institutions which offered courses and products reached 64.7% and this ratio remained at 64% in 2011. Most of them (74%) developed authorized/recognized courses in 2010, against 25.6% of micro, small and medium companies that offered such courses. This same ratio was maintained in 2011.

The corporate courses continue to be offered by a majority of large companies: 77% in 2010 and 89% in 2011. If in 2010 no micro company and 23% of small and medium companies offered corporate courses, in 2011 only one micro company (11%) offered this type of course. Institutions that offer non-formal and authorized courses are also mostly large companies (75%) in 2011.

The responding institutions of micro, small and medium enterprises accounted for 30% of the total.

It is noteworthy that 6% of respondents were not identified by company size in 2011, representing 76% of the suppliers of products and services. That is because they answered directly the questionnaire for suppliers of products and services and did not answer the question regarding company size, which was common.

From the data observed in tables 2.2 and 2.3, it can be inferred that the responding institutions are generally large companies that develop primarily authorized courses and are

**Table 2.3** Geographical distribution of responding institutions according to the type of course/product offered to the public

| Types of courses, services and products offered | Company/institution size | | | | | Total |
|---|---|---|---|---|---|---|
| | Micro | Small | Medium | Large | No information | |
| Only courses authorized/recognized by a legal entity (MEC, CNE, CEE) | 5 | 4 | 5 | 40 | – | 54 |
| Only non-formal courses | 7 | 4 | 4 | 7 | – | 22 |
| Only corporate courses | 1 | – | – | 8 | – | 9 |
| Only distance learning products and services | – | 1 | – | 1 | 15 | 17 |
| Only non-formal and authorized courses | 1 | 5 | – | 18 | – | 24 |
| Only corporate and authorized courses | – | – | – | 2 | – | 2 |
| Only non-formal and corporate courses | 1 | 1 | – | 2 | – | 4 |
| Only non-formal courses and distance learning products and services | 2 | 1 | 1 | 1 | – | 5 |
| Only authorized courses and distance learning products and services | 1 | – | 1 | 3 | – | 5 |
| Only corporate courses and distance learning products and services | – | 1 | – | 1 | – | 2 |
| Only authorized, corporate courses and distance learning products and services | – | – | – | – | – | – |
| Only non-formal, corporate courses and distance learning products and services | – | 2 | 1 | 9 | – | 12 |
| Only corporate, non-formal and authorized courses | 1 | – | 2 | 8 | – | 11 |
| Only authorized, non-formal and distance learning products and services | – | – | – | 4 | – | 4 |
| All kinds of courses and also distance learning products and services | 3 | – | 1 | 21 | – | 25 |
| **Total** | **24** | **19** | **15** | **125** | **13** | **196** |

located mainly in the South and Southeast regions, dedicating themselves to formal education such as universities, colleges and professional formation centers.

The corporate courses and distance learning products and services were not the focus of responses and only indicate that the authorized and non-formal courses are the most important ones in this universe of courses offered to the public. In 2011, there was no significant difference in the results obtained in these two intersectings in relation to those obtained in 2010.

Tables 2.4 and 2.5 present the geographical distribution nd size of responding institutions, according to their operation area.

**Table 2.4** Geographical distribution of responding institutions according to their operation area in distance learning

| Operation areas in distance learning | Geographical regions | | | | | TOTAL |
|---|---|---|---|---|---|---|
| | N | NE | MW | SE | S | |
| Educational | 9 | 22 | 20 | 60 | 35 | 146 |
| Industrial – areas | – | – | – | 1 | – | 1 |
| Agricultural – areas | – | – | 1 | – | – | 1 |
| Trade | – | – | – | – | – | – |
| Services – areas | – | – | 2 | 6 | 2 | 10 |
| Military – areas | – | – | – | 2 | – | 2 |
| Financial | – | – | – | – | – | – |
| Communication | – | – | – | 2 | – | 2 |
| Government – areas | – | 3 | 3 | 2 | – | 8 |
| Union – areas | – | – | – | – | – | – |
| NGO – areas | – | – | – | – | – | – |
| Other areas | – | – | – | 9 | 2 | 11 |
| **Total** | **9** | **25** | **26** | **82** | **39** | **181** |

**Table 2.5** Geographical distribution of responding institutions according to company size in distance learning

| Operation areas in distance learning | Company size | | | | Total |
|---|---|---|---|---|---|
| | Micro | Small | Medium | Large | |
| Educational | 16 | 14 | 12 | 104 | 146 |
| Industrial | – | – | – | 1 | 1 |
| Agricultural | – | – | – | 1 | 1 |
| Trade | – | – | – | – | – |
| Services | 2 | 3 | 1 | 4 | 10 |
| Military | – | – | – | 2 | 2 |
| Financial | – | – | – | – | – |
| Communication | 1 | – | – | 1 | 2 |
| Government | – | – | – | 8 | 8 |
| Union | – | – | – | – | – |
| NGO | – | – | – | – | – |
| Other areas | 3 | 2 | 2 | 4 | 11 |
| **Total** | **22** | **19** | **15** | **125** | **181** |

From Table 2.4, concerning the geographical distribution, it can be seen that the large majority of institutions operate in the educational area (81%). These educational institutions are spread over all the: 41% of them are located in the Southeast, 24% in the Southern, 15% in the Northeast, 14% in the Midwest, and 6% in the North region.

In relation to company size, from the 181 institutions that responded to this question, it can be observed that the majority are large companies in the educational area, corresponding to 71% of the answers. Still in the educational area, the micro companies corresponded to 11%, the small companies to 9%, and the medium companies to 8%.

Observing tables 2.2, 2.3, 2.4 and 2.5, it can be said that the group of respondents to the 2011 Census is composed mostly of large educational institutions, located in the southern and the southeastern regions of Brazil, where they develop authorized courses. Nevertheless, there is among the respondents a representative of institutions from all regions of Brazil, of all company sizes and developing several activities in distance learning.

The relation between the administrative category, company and geographical distribution of the 181 responding institutions to this question can be observed in tables 2.6 and 2.7.

Table 2.6 indicates that educational institutions are mostly private educational institutions with for-profit motives, corresponding to 24% of the total. The non-profit private institutions correspond to 18%. Public institutions correspond to 25% of the total, distributed among federal (16%) and state institutions (9%).

Regarding responding companies, it is observed that 15% belong to the "S" system (Senai, Sesi, Senac, Sesc, Senar, Senat etc.), and 6% of the companies do not work exclusively with education.

It can also be observed in the former table that responding public entities are distributed between the military, legal and health areas and, finally, that most of responding institutions are private educational institutions, located in the Southeast, which corresponds to 46% of all respondents in this.

In Table 2.7, it can be observed that the majority of respondents are large companies of the private educational area with profit or non-profit purposes (37%) and by public large companies (27%), 18% of which are in the federal area and 9% in the state area.

It was also observed that 12% of the respondents classified themselves as micro companies, and most of them (59%) are private educational institutions with or without profit-seeking purposes.

Finally, comparing tables 2.6 and 2.7, it can be concluded that the majority of respondents are in the private educational area, with profit purposes, located in the Southeast.

**Table 2.6** Distribution of responding institutions according to administrative category and region where they are located

| Administrative category | | Number of institutions by geographical region | | | | | TOTAL |
|---|---|---|---|---|---|---|---|
| | | N | NE | MW | SE | S | |
| Public education | Federal | – | 8 | 6 | 9 | 6 | 29 |
| | State | 1 | 5 | – | 6 | 4 | 16 |
| | Municipal | – | – | – | – | – | – |
| Private education | Profit-seeking | 2 | 2 | 7 | 22 | 10 | 43 |
| | Non-profit | – | 1 | 4 | 16 | 12 | 33 |
| Educational foundation (*) | | 1 | 1 | – | 3 | 2 | 7 |
| Education secretariat | State | – | – | 1 | 1 | – | 2 |
| | Municipal | – | – | – | 1 | – | 1 |
| Company | "S" System | 5 | 5 | 6 | 8 | 4 | 28 |
| | Not exclusively educational | – | – | – | 10 | 1 | 11 |
| Public entity | Military | – | – | – | 2 | – | 2 |
| | Judiciary | – | 1 | – | – | – | 1 |
| | Health | – | – | – | 1 | – | 1 |
| Non-governmental organization | | – | – | – | 1 | – | 1 |
| Others | | – | 2 | 2 | 2 | – | 6 |
| **Total** | | **9** | **25** | **26** | **82** | **39** | **181** |

* At least seven of the 181 institutions identified themselves as educational foundations, without specifying if they are of a public or private nature.

**Table 2.7** Distribution of responding institutions according to their administrative category and size

| Administrative category | | Number of institutions by company size | | | | Total |
|---|---|---|---|---|---|---|
| | | Micro | Small | Medium | Large | |
| Public education | Federal | 3 | 1 | 3 | 22 | 29 |
| | State | 1 | 2 | 1 | 12 | 16 |
| | Municipal | – | – | – | – | – |
| Private education | Profit-seeking | 9 | 10 | 1 | 23 | 43 |
| | Non-Profit | 4 | 2 | 4 | 23 | 33 |
| Educational foundation | | – | 1 | 2 | 4 | 7 |
| Education secretariat | State | – | – | – | 2 | 2 |
| | Municipal | – | – | 1 | – | 1 |
| Company | "S" System | – | 1 | 2 | 25 | 28 |
| | Not exclusively educational | 5 | 2 | – | 4 | 11 |
| Public entity | Military | – | – | – | 2 | 2 |
| | Judiciary | – | – | – | 1 | 1 |
| | Health | – | – | – | 1 | 1 |
| Non-governmental organization | | – | – | 1 | – | 1 |
| Others | | – | – | – | 6 | 6 |
| **Total** | | **22** | **19** | **15** | **125** | **181** |

# 3 Distance learning in Brazil in 2011

The 2010 Census of the Instituto Nacional de Ensino Superior (National Institute for Higher Education Studies and Research – Inep) confirmed the growth trend of courses in the distance learning modality, reaching 14.6% of the total number of enrollments in higher education. The on-site in courses reached the total of 3,958,544 bachelor degree enrollments, 928,748 teaching degree enrollments and 545,844 enrollments in technological level degrees. Distance learning, in turn, summed up 268,173 bachelor degree, 426,241 teaching degree and 235,765 technological level enrollments.

In the distance learning modality, there was a share growth in enrollments, from 0.4% in 2001 to 11.2% in 2010, with the largest increase since 2007 (Inep, 2010).

Moreover, according to Inep, regarding the number of graduates in distance learning in higher education, the highest participation in absolute terms and percentage was recorded in 2005, with 6,615 graduates (7.1%), followed by a decline in other years and a significant recovery in 2010, with 6,503 graduates (6.5%). This growth is probably due to the growth of enrollments in 2007.

Still according to the Inep Census, the distance learning students are on average 33 years old and constitute an older public than the on-site education public.

Regarding the ABED Census, the total number of students in 2009 was 528,320, who studied in 128 entities. This year, most registrations occurred in the Southeast and South (379,800), followed by the Midwest (92,509), Northeast (17,663) and North (6,223) regions. In 2010, with 198 institutions participating in the Census, there was a total of 2,261,921 students enrolled in distance learning courses. The enrollments were concentrated mostly in the Southeast (1,608,825) and South (314,272).

Table 3.1 presents the evolution of distance learning enrollments in the last few years, according to the Census carried out by ABED.

**Table 3.1** Evolution of distance learning enrollments in the 2009-2011 period

| Year | Number of institutions participating in the Census (*) | Number of distance learning enrollments |
|---|---|---|
| 2009 | 128 | 528,320 |
| 2010 | 198 | 2,261,921 |
| 2011 | 181 | 3,589,373 |

* Includes only educational institutions; in other words, the 11 institutions that offer only distance learning products and services are excluded.

In Table 3.1, it is possible to verify that the highest number of enrollments in 2011, as in 2009 and 2010, remains in the South (53%) and the Southeast (24%) regions.

It is observed that, although in 2011 the number of institutions participating decreased 8.5%, the enrollments increased 58%, considering, in both cases, all types of courses.

In 2010, the majority of enrollments were concentrated in corporate courses (850,203), which corresponded to 38% of the total, and in non-formal courses (755,194), which corresponded to 33%. Enrollments in authorized courses (656,524) corresponded to only 29% of enrollments. In 2011, the enrollments in authorized courses (779,078) accounted for 22% of the total. In corporate institutions these courses (38,809) accounted for 1% and enrollments in non-formal courses (2,771,486) accounted for 77%. In 2011, there was an increase of 44% in envirollments in non-formal courses, and a 7% decrease in enrollments in authorized courses, and 37% in corporate courses. These data are explained by a difference of classification in the types of courses between the 2010 and the 2011 Census. So it is important not to interpret this difference as a reduction in service in distance learning, either by corporate institutions or by the expansion of service by non-formal courses (in other words, many courses that were previously classified as corporate were indicated by many corporate institutions as being non-formal).

## Enrollments and conclusions

### Authorized and corporate institutions

Table 3.2 shows the enrollment distribution regarding authorized/recognized courses in 2011, according to the legal nature, regional location and educational, level of the institutions.

In this Census, authorized courses for a general public are responsible for the highest number of enrollments, reaching 95% of total, and the ones from corporate institutions account for 5% of enrollments.

Concerning the legal nature of institutions, it can be observed that in 2011 the majority of enrollments indicated by respondents refer to private institutions, corresponding to 60.5% in those that have profit purposes and to 14.5% in the non-profit ones.

The enrollments in public institutions correspond to 15% of the total, being 8% in federal institutions and 7% in state institutions. The educational foundations have 2%; in courses promoted by state departments, the enrollments reach 4%, and in institutions of the "*S*" system they reach 3%.

In the authorized courses of a corporate nature, the highest number of enrollments is concentrated in state departments of education, which represent 85.5% of enrollments.

This picture differs significantly from the one presented in 2010, in which philanthropic institutions were the ones that had the highest number of enrollments.

Regarding the distribution of enrollments by geographic region, it is observed that the majority is concentrated in the Southern region, representing 53% of the total, followed by the Southeast, with 24%. The Midwest has 14%, the Northeast 8%, and the Northern region less than 1%.

The highest number of enrollments in corporate institutions is in the Southeast, which is equivalent to 88% of the total. The North does not have any enrollments in corporate institutions.

Regarding the distribution of enrollments by educational level, it is observed that the majority focus on undergraduate courses, and 21% of enrollments of the total of authorized institutions

**Table 3.2** Distribution of enrollments in authorized/recognized distance learning courses in 2011, according to the legal nature, regional location and educational level of the institutions

| Institutional characteristics | | | Enrollments | | TOTAL |
|---|---|---|---|---|---|
| | | | Authorized courses of a general nature | Authorized courses of a corporate nature | |
| Legal nature | Public | Federal | 65,858 | 97 | **65,955** |
| | | State | 57,123 | 700 | **57,823** |
| | | Municipal | – | – | **–** |
| | Private | Profit-seeking | 494,758 | 600 | **495,358** |
| | | Non-profit | 115,175 | 3,876 | **119,051** |
| | Educational foundation | | 18,975 | | **18,975** |
| | Department of education | State | – | 33,201 | **33,201** |
| | | Municipal | – | – | **–** |
| | Companies | "S" System | 26,646 | – | **26,646** |
| | | Not exclusively educational | 60 | 180 | **240** |
| | Public entity | Military | – | 120 | **120** |
| | | Judiciary | – | – | **–** |
| | | Health | 483 | – | **483** |
| | NGO | | – | – | **–** |
| | Other | | – | 35 | **35** |
| | Total | | 779,078 | 38,809 | **817,887** |
| Region | North | | 5,020 | – | **5,020** |
| | Northeast | | 64,543 | 700 | **65,243** |
| | Midwest | | 116,951 | 110 | **117,061** |
| | Southeast | | 161,121 | 34,136 | **195,257** |
| | South | | 431,443 | 3,863 | **435,306** |
| **Total** | | | **779,078** | **38,809** | **817,887** |

(*continues*)

(*continued*)

| Institutional characteristics | | | | Enrollments | | TOTAL |
|---|---|---|---|---|---|---|
| | | | | Authorized courses of a general nature | Authorized courses of a corporate nature | |
| Educational level/ modality | Basic education | | | 150 | – | **150** |
| | High school | | | 2,043 | – | **2,043** |
| | Youth and adult education (basic and high school) | | | 21,251 | – | **21,251** |
| | Vocational technical course | | | 34,272 | 600 | **34,272** |
| | Higher education | Sequential | Specific formation | 2,308 | 180 | **2,488** |
| | | | Complementary studies | 2,626 | – | **2,626** |
| | | Undergraduate | Bachelor degree | 162,085 | – | **162,085** |
| | | | Teaching license | 172,783 | – | **172,783** |
| | | | Bachelor degree and teaching license | 2,295 | – | **2,295** |
| | | | Technological | 120,803 | – | **120,803** |
| | | | Blended subjects | 38,077 | 3,643 | **41,720** |
| | | | Distance learning subjects (limit of 20% of the curriculum) | 80,952 | – | **80,952** |
| | | | Subjects in dependence in the distance learning modality | 3,801 | – | **3,801** |
| | | Graduate | Specialization Graduate course | 108,481 | 34,386 | **142,867** |
| | | | Specialization graduate course – MBA | 23,470 | – | **23,470** |
| | | | Research graduate course – master's degree | 102 | – | **102** |
| | | | Research graduate course – doctor's degree | 0 | – | **–** |
| | | | Distance learning subject (part of a broader course) | 3.579 | – | **3,579** |
| **Total** | | | | **779,078** | **38,809** | **817,887** |

are in the areas of teaching degrees (22%) and bachelor's degrees (21%). In other words, 42% of enrollments are distributed between teaching degrees and bachelor's degrees, and 15% of enrollments are related to undergraduate technology courses. The distance learning subjects that correspond to the limit of 20% of curriculum have a total of 10% of enrollments in the couses of authorized institutions.

In the graduate courses, 14% of enrollments are in specialization courses and 3% in MBA courses. Even in authorized institutions, the vocational technical courses correspond to 4.3% of enrollments, and youth and adult education correspond to 2.7%.

In corporate institutions, the majority of enrollments refer to the graduate level courses and specialization graduate courses, with 88.5% of the total enrollments.

In summary, the highest number of enrollments is associated with private institutions with for-profit purposes, located in the South region, in undergraduate courses, in the bachelor's degree and teaching license areas. In corporate institutions, the highest number of enrollments is concentrated in state departments, in the Southeast region, in the specialization and graduate courses.

Regarding the distribution of enrollments according to the size of the institution and in different types of course offerings, see Table 3.3.

From the former table, concerning institutional characteristics, it can be observed that the majority of enrollments refer to large companies (92%).

Regarding enrollments in courses offered by authorized and corporate institutions, 70% are in institutions that offer on-site, distance learning and blended courses; 27% of enrollments are in institutions that offer distance learning and on-site courses, and only 2% are in institutions that only offer distance learning courses.

In summary, the majority of enrollments are in large institutions that offer concurrently on-site, distance learning and blended courses.

Considering the distribution of enrollments in authorized/recognized courses by different areas of knowledge, see Table 3.4.

In Table 3.4, it can be observed that the total of enrollments (817,887) is not the same as the one in the previous tables, since many institutions did not organize their data by knowledge area. Specifically, from the 125 institutions that offer authorized courses, only 67 provided information on enrollments organized by knowledge areas.

Concerning the graduates, from the 125 institutions that offer authorized courses, only 87 provided information on both enrollments and conclusions. Thus, the analysis will be performed based on information collected, without considering the number of institutions that did not provide complete information. Table 3.5 presents data about the conclusions in distance learning courses in 2011.

It is important to emphasize that it is not possible to perform a cross analysis between Table 3.5 of graduates and Table 3.4 of enrollments in order to obtain dropout rates in distance learning, as the data refer to authorized courses and, therefore, long duration ones, so the data related to the graduates cannot correspond to the enrollments from 2011, but from previous years. Thus, this Census will only comment on data referring to the conclusions and its distribution regarding different characteristics, without any intention to characterize a possible dropout pattern in authorized courses.

Table 3.5 indicates that 46% of the total of distance learning courses in 2011 were enrolled in private institutions with profit purposes, with 12% of authorized state institutions and 6% of educational foundations.

Most graduates of authorized courses of a non-corporate character are found in the Southern region, accounting for 45% of the total, and in Southeast region, with 35% distributed

**Table 3.3** Distribution of enrollments in authorized/recognized distance learning courses in 2011, according to company size and course offerings of educational institutions

| Institutional characteristics | | Enrollments | | |
|---|---|---|---|---|
| | | Authorized courses of a general nature | Authorized courses of a corporate nature | TOTAL |
| Institution size | Micro company | 18,586 | 780 | **19,366** |
| | Small company | 11,380 | – | **11,380** |
| | Medium company | 24,707 | – | **24,707** |
| | Large company | 717,464 | 38,029 | **755,493** |
| | Not informed | 6,941 | – | **6,941** |
| **Total** | | **779,078** | **38,809** | **817,887** |
| Course offering | Only distance learning courses | 17,384 | 600 | **17,984** |
| | Distance learning and on-site courses | 218,017 | 110 | **218,127** |
| | On-site, distance learning and blended courses | 534,411 | 38,099 | **572,510** |
| | Not informed | 9,266 | – | **9,266** |
| **Total** | | **779,078** | **38,809** | **817,887** |

**Table 3.4** Distribution of enrollments in authorized/recognized distance learning courses in 2011, according to the knowledge areas comprised in the educational institutions

| Institutional characteristics | | Enrollments | | |
|---|---|---|---|---|
| | | Authorized courses of a general nature | Authorized courses of a corporate nature | TOTAL* |
| Knowledge areas | Human sciences – education | 173,105 | 33,702 | **206,807** |
| | Human sciences – others | 11,756 | – | **11,756** |
| | Linguistics, literature and arts | 26,171 | 1,000 | **27,171** |
| | Social sciences – law | 16,949 | 35 | **16,984** |
| | Social sciences – business/management | 249,345 | 90 | **249,435** |
| | Social sciences – accounting | 31,864 | – | **31,864** |
| | Social sciences – business | 13,833 | 40 | **13,873** |
| | Social sciences – communication | 8,893 | – | **8,893** |
| | Social sciences – others | 36,962 | 4,641 | **41,603** |
| | Engineering | 11,312 | – | **11,312** |
| | Computer science | 13,966 | – | **13,966** |
| | Mathematical sciences – mathematics | 15,942 | – | **15,942** |
| | Biological sciences | 7,789 | – | **7,789** |
| | Agricultural sciences | 4,408 | – | **4,408** |
| | Health sciences – medicine | 1,607 | 93 | **1,700** |
| | Health sciences – nursing | 2,326 | 10 | **2,336** |
| | Health sciences – others | 15,534 | – | **15,534** |
| | Others | 9,189 | 37,553 | **46,742** |
| **Total** | | **650,951** | **77,164** | **728,115** |

* A large part of the institutions did not present distance learning data organized by knowledge area.

among general character institutions (30%) and corporate institutions (5%).

In relation to the educational level, 24% of the graduates are students from specialization courses, 15% of technological level undergraduate courses, 14% of teaching license courses and 10% of the bachelor's degrees.

As in the case of enrollments, Table 3.5 shows that the highest number of graduates is also associated with private institutions with for-profit purposes, located in the South. But in relation to the educational level, while the highest number of enrollments focuses on undergraduate courses in the bachelor and teacher license degree areas, the highest number of graduates is from the specialization and undergraduate courses, in the technological level.

It is also observed in this table that the highest number of corporate courses, concerning both enrollments and graduates, focuses on the department of education, in the Southeastern region, in specialization graduate courses.

Table 3.6 shows the data regarding the number of graduates distributed by company size and type of course offered.

As in the case of enrollments, the number of graduates is higher in large companies, accounting for 92% of the total, and in institutions that offer at the same time on-site, distance learning and blended courses, corresponding to 75% of the total.

Based on these data, it can be observed that enrollments and conclusions in distance learning courses keep the same trend; in other words, they are significantly higher in large companies that offer courses of all modalities. The number of enrollments and conclusions in distance learning is significantly lower in institutions that are dedicated only to distance learning.

**Table 3.5** Distribution of conclusions in authorized/recognized distance learning courses in 2011, according to the legal nature, regional location, and educational level of the institutions

| Conclusions* | | | | | | |
|---|---|---|---|---|---|---|
| Institutional characteristics | | | | Authorized courses of a general nature | Authorized courses of a corporate nature | TOTAL |
| Legal nature | Public | Federal | | 8,824 | – | **8,824** |
| | | State | | 25,853 | 361 | **26,214** |
| | | Municipal | | – | – | **–** |
| | Private | Profit | | 103,320 | 580 | **103,900** |
| | | Non-profit | | 49,438 | 47 | **49,485** |
| | Educational foundation | | | 14,285 | – | **14,285** |
| | Department of education | State | | – | 10,360 | **10,360** |
| | | Municipal | | – | – | **–** |
| | Companies | "S" System | | 11,236 | – | **11,236** |
| | | Not exclusively educational | | 30 | 180 | **210** |
| | Public entity | Military | | – | 118 | **118** |
| | | Judiciary | | – | – | **–** |
| | | Health | | 1,099 | – | **1,099** |
| | NGO | | | – | – | **–** |
| | Other | | | – | – | **–** |
| **Total** | | | | **214,085** | **11,646** | **225,731** |
| Region | North | | | 8,171 | – | **8,171** |
| | Northeast | | | 14,871 | 361 | **15,232** |
| | Midwest | | | 26,718 | 47 | **26,765** |
| | Southeast | | | 67,552 | 11,238 | **78,790** |
| | South | | | 96,773 | 0 | **96,773** |
| **Total** | | | | **214,085** | **11,646** | **225,731** |
| Educational level/ modality | Basic education | | | 80 | – | **80** |
| | High school | | | 1,861 | – | **1,861** |
| | Youth and adult education (basic and high school) | | | 8,544 | – | **8,544** |
| | Vocational technical course | | | 18,465 | 580 | **19,045** |
| | Higher education | Sequential | Specific formation | 1,753 | 180 | **1,933** |
| | | | Complementary studies | 2,216 | – | **2,216** |
| | | Undergraduation | Bachelor degree | 22,507 | – | **22,507** |
| | | | Teaching license | 31,160 | – | **31,160** |

(*continues*)

(*continued*)

| Conclusions* | | | | | | |
|---|---|---|---|---|---|---|
| **Institutional characteristics** | | | | **Authorized courses of a general nature** | **Authorized courses of a corporate nature** | **TOTAL** |
| Educacional level/ modality | Higher education | Undergraduation | Bachelor degree and teaching license | 2,445 | – | **2,445** |
| | | | Technological | 34,845 | – | **34,845** |
| | | | Blended subjects | 12,347 | – | **12,347** |
| | | | Distance learning subjects (limit of 20% of the curriculum) | 20,791 | – | **20,791** |
| | | | Subjects in dependence in the distance learning modality | 3,462 | – | **3,462** |
| | | Graduation | Specialization graduate course | 43,892 | 10,886 | **54,778** |
| | | | Specialization graduate course – MBA | 8,608 | – | **8,608** |
| | | | Research graduate course – master's degree | – | – | **–** |
| | | | Research graduate course – doctorate degree | – | – | **–** |
| | | | Distance learning subject (part of a broader course) | 1,109 | – | **1,109** |
| **Total** | | | | **214,085** | **11,646** | **225,731** |

* The number of conclusions does not refer only to the enrollments performed in 2011.

**Table 3.6** Distribution of conclusions in authorized/recognized distance learning courses in 2011, according to company size and course offerings

| Conclusions | | | | |
|---|---|---|---|---|
| **Institutional characteristics** | | **Authorized courses of a general nature** | **Authorized courses of a corporate nature** | **TOTAL** |
| Company size | Micro company | 2,301 | 760 | **3,061** |
| | Small company | 5,271 | – | **5,271** |
| | Medium company | 8,685 | – | **8,685** |
| | Large company | 197,109 | 10,886 | **207,995** |
| | Not informed | 719 | – | **719** |
| **Total** | | **214,085** | **11,646** | **225,731** |
| Course offering | Only distance learning courses | 7,459 | 580 | **8,039** |
| | Distance learning and on-site courses | 47,477 | 47 | **47,524** |
| | On-site, distance learning and blended courses | 159,149 | 11,019 | **170,168** |
| **Total** | | **214,085** | **11,646** | **225,731** |

## Non-formal courses

The distribution of enrollments and conclusions in non-formal courses can be seen in Table 3.7 below.

Table 3.7 shows that, in non-formal courses, there were 2,771,486 enrollments and 1,730,705 conclusions. As in general the non-formal courses have shorter duration than the authorized ones, it is possible that both enrollments and conclusions have been performed in 2011. As this is only a possibility, it is better not to perform an analysis in order to obtain the dropout rate from the data of this table. In all cases, it is possible to observe that the number of enrollments and conclusions in authorized courses is significantly higher than in the non-formal ones.

Concerning the legal nature of institutions, the highest number of enrollments is in private institutions with profit purposes, which correspond to 1,342,490 or 48% of the total of enrollments. And most of them occur in corporate institutions, corresponding to 69% of enrollments.

The "*S*" System contributed with 593,724 enrollments, corresponding to 21% of the total.

In the private non-profit institutions, there were 466,318 enrollments, representing 17% of the total.

The highest number of enrollments in non-formal courses is in the Southeast, corresponding to 68%. The lowest number of enrollments in non-formal courses is set in the North, corresponding to less than 1% of the total.

**Table 3.7** Distribution of enrollments and conclusions in non-formal distance learning courses in 2011, according to the legal nature, regional location and type of course offered of the educational institutions

| Institutional characteristics | | | Number of students in non-formal courses | | | | | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Accredited institutions | | Non-accredited institutions | | Corporate institutions | | | |
| | | | Enrolled | Graduates | Enrolled | Graduates | Enrolled | Graduates | Enrolled | Graduates |
| Legal nature | Public | Federal | 10,233 | 4,963 | 70 | 44 | 113,908 | 78,496 | **124,211** | **83,503** |
| | | State | 6,572 | 5,322 | – | – | – | – | **6,572** | **5,322** |
| | | Municipal | – | – | – | – | – | – | **–** | **–** |
| | Private | Profit | 196,696 | 388,543 | 219,189 | 123,857 | 926,605 | 96,019 | **1,342,490** | **608,419** |
| | | Non-profit | 26,309 | 22,895 | 439,273 | 344,637 | 736 | 657 | **466,318** | **368,189** |
| | Educational foundation | | 21,813 | 20,040 | 52,785 | 26,281 | – | – | **74,598** | **46,321** |
| | Department of education | State | – | – | – | – | 75,675 | 70,530 | **75,675** | **70,530** |
| | | Municipal | – | – | 435 | 340 | – | – | **435** | **340** |
| | Companies | "S" System | 147,201 | 125,208 | 424,420 | 335,325 | 22,103 | 19,041 | **593,724** | **479,574** |
| | | Not exclusively educational | – | – | 4,609 | 1,683 | 6,825 | 6,050 | **11,434** | **7,733** |
| | Public entity | Military | – | – | – | – | 24,615 | 24,588 | **24,615** | **24,588** |
| | | Judiciary | – | – | – | – | 2,670 | 2,210 | **2,670** | **2,210** |
| | | Health | 9,021 | 5,739 | – | – | – | – | **9,021** | **5,739** |
| | NGO | | – | – | 3,328 | 3,329 | – | – | **3,328** | **3,329** |
| | Other | | – | – | 34,786 | 23,660 | 1,609 | 1,248 | **36,395** | **24,908** |
| **Total** | | | **417,845** | **572,710** | **1,178,895** | **859,156** | **1,174,746** | **298,839** | **2,771,486** | **1,730,705** |
| Region | North | | – | – | 9,164 | 6,111 | – | – | **9,164** | **6,111** |
| | Northeast | | 14,443 | 11,189 | 172,119 | 139,143 | 4,279 | 3,458 | **190,841** | **153,790** |
| | Midwest | | 171,487 | 143,134 | 188,385 | 120,853 | 118,161 | 82,742 | **478,033** | **346,729** |
| | Southeast | | 222,909 | 159,296 | 650,186 | 436,166 | 1,030,475 | 193,340 | **1,903,570** | **788,802** |
| | South | | 9,006 | 259,091 | 159,041 | 156,883 | 21,831 | 19,299 | **189,878** | **435,273** |
| **Total** | | | **417,845** | **572,710** | **1,178,895** | **859,156** | **1,174,746** | **298,839** | **2,771,486** | **1,730,705** |
| Type of non-formal course | Professional initiation | | 148,445 | 126,090 | 190,952 | 177,501 | 280,946 | 50,514 | **620,343** | **354,105** |
| | Operational training | | 930 | 800 | 1,933 | 1,214 | 529,214 | 72,111 | **532,077** | **74,125** |
| | Training in social/behavioral skills | | 1,740 | 1,408 | 512 | 349 | 40,202 | 11,136 | **42,454** | **12,893** |
| | Update | | 164,120 | 136,884 | 88,215 | 66,968 | 49,727 | 39,473 | **302,062** | **243,325** |
| | Improvement | | 57,700 | 45,081 | 841,937 | 586,528 | 148,432 | 121,399 | **1,048,069** | **753,008** |
| | University extension (courses) | | 15,057 | 262,314 | 52,885 | 26,281 | 1,184 | 1,139 | **69,126** | **289,734** |
| | Preparation for Enem/entrance examination/ similares | | 302 | 104 | – | – | 3,738 | 2,627 | **4,040** | **2,731** |
| | Other | | 29,551 | 29 | 2,461 | 315 | 121,303 | 440 | **153,315** | **784** |
| **Total** | | | **417,845** | **572,710** | **1,178,895** | **859,156** | **1,174,746** | **298,839** | **2,771,486** | **1,730,705** |

Regarding the type of non-formal course, the highest number of enrollments is in improvement courses, with 1,048,069 (38% of the total). They are followed by the professional initiation courses, which correspond to 620,343 enrollments (22% of the total), and the majority of them are from corporate institutions (45%). Enrollments in operational training courses correspond to 532,077 (19% of total), and most of them are also in corporate institutions (99%).

The highest number of graduates is in private institutions with for-profit purposes, followed by graduates in accredited institutions, then in non-profit and non-accredited institutions, and finally in corporate institutions. The number of enrollments in corporate institutions is much higher than that of graduates, which may indicate that the courses have a longer duration.

The "*S*" System presents 28% of total of graduates, mainly in non-accredited institutions.

Concerning the location, the highest number of enrollments and graduates is located in the Southeast, mostly in improvement courses in non-accredited institutions.

Moreover, it can be observed in the former table that the number of graduates in university extension courses is much higher than the number of enrollments in accredited institutions. This fact can lead to the hypothesis that these courses are longer and that graduates in 2011 had their enrollments occuring in 2010.

In synthesis, the highest number of enrollments and conclusions is focused on improvement non-formal courses, in private institutions with for-profit purposes, of a corporate nature, located in the Southeast.

In Table 3.8, it is possible to observe the distribution of enrollments and conclusions in non-formal distance learning courses, according to the company size and course offering of the educational institutions.

Table 3.8 shows that the highest volume of enrollments and graduates is in large institutions (72%) which offer on-site, distance learning and blended courses concommitantly (70%). And just 11% of the enrollments and conclusions are from institutions that offer only distance learning courses.

When the distribution of enrollments and conclusions of non-formal courses is compared that of authorized courses, the ratio remains. It means that the highest volume of enrollments and conclusions of the distance learning students either in non-formal or authorized courses is related to large companies that offer all types of courses (distance learning, on-site and blended).

The distribution of non-formal courses by knowledge area can be observed in Table 3.9.

It is important to note that, as in the case of authorized courses, not all respondents provided data on enrollments and conclusions in non-formal courses distributed by knowledge area. Thus, the data collected and organized in Table 3.9 differ from the results obtained in the previous ones, since it has information from respondents and seeks to identify trends.

The area of knowledge that had the greatest number of enrollments and conclusions in non-formal distance learning courses was the social sciences and business and management (25%), followed by education (21%) and computer sciences (11%). In comparison to the number of enrollments in the

**Table 3.8** Distribution of enrollments and conclusions in non-formal distance learning courses in 2011, according to company size and course offerings

| Institutional characteristics | | Number of students in non-formal courses | | | | | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|
| | | Accredited institutions | | Non-accredited institutions | | Corporate institutions | | | |
| | | Enrolled | Graduates | Enrolled | Graduates | Enrolled | Graduates | Enrolled | Graduates |
| Company size | Micro company | 3,909 | 2,248 | 104,901 | 101,714 | 1,180 | 1,130 | **109,990** | **105,092** |
| | Small company | 772 | 581 | 55,279 | 28,905 | 800,779 | 90,862 | **856,830** | **120,348** |
| | Medium company | 25,280 | 22,492 | 7,220 | 5,103 | – | – | **32,500** | **27,595** |
| | Large company | 387,884 | 547,389 | 1,011,495 | 723,434 | 372,787 | 206,847 | **1,772,166** | **1,477,670** |
| **Total** | | **417,845** | **572,710** | **1,178,895** | **859,156** | **1,174,746** | **298,839** | **2,771,486** | **1,730,705** |
| Course offering | Only distance learning courses | 32,957 | 2,007 | 221,203 | 123,386 | 128,826 | 7,917 | **382,986** | **133,310** |
| | Distance learning and on-site courses | 53,689 | 45,210 | 423,651 | 304,080 | 965 | 634 | **478,305** | **349,924** |
| | On-site, distance learning and blended courses | 331,014 | 525,382 | 534,041 | 431,690 | 1,044,955 | 290,288 | **1,910,010** | **1,247,360** |
| | Not informed | 185 | 111 | – | – | – | – | **185** | **111** |
| **Total** | | **417,845** | **572,710** | **1,178,895** | **859,156** | **1,174,746** | **298,839** | **2,771,486** | **1,730,705** |

**Table 3.9** Distribution of enrollments and conclusions in non-formal distance learning courses in 2011, according to the knowledge areas comprised in the educational institutions

| Knowledge areas | Accredited institutions | | Non-accredited institutions | | Corporate institutions | | TOTAL* | |
|---|---|---|---|---|---|---|---|---|
| | Enrolled | Graduates | Enrolled | Graduates | Enrolled | Graduates | Enrolled | Graduates |
| Human sciences – education | 31,843 | 24,547 | 121,104 | 97,962 | 76,265 | 71,094 | 229,212 | 193,603 |
| Human sciences – others | 3,180 | 2,148 | 27,563 | 19,966 | 30 | 24 | 30,773 | 22,138 |
| Linguistics, literature and arts | 1,556 | 1,257 | – | – | 358 | 307 | 1,914 | 1,564 |
| Social sciences – law | 9,450 | 9,424 | 383 | 294 | 60,000 | 57,039 | 69,833 | 66,757 |
| Social sciences – business/ management | 176,316 | 147,092 | 63,138 | 39,699 | 41,367 | 36,236 | 280,821 | 223,027 |
| Social sciences – accounting | 228 | 117 | 100 | 46 | 25,000 | 25,000 | 25,328 | 25,163 |
| Social sciences – business | 22,711 | 21,245 | 50,716 | 31,885 | 5,618 | 5,531 | 79,045 | 58,661 |
| Social sciences – communication | 11,121 | 9,805 | 269 | 231 | 1,107 | 950 | 12,497 | 10,986 |
| Social sciences – others | 1,534 | 909 | 24,400 | 15,153 | 29 | 27 | 25,963 | 16,089 |
| Engineering | 1,991 | 1,220 | 23,949 | 15,596 | 593 | 505 | 26,533 | 17,321 |
| Computer sciences | 24,871 | 18,247 | 108,123 | 64,500 | 246 | 181 | 133,240 | 82,928 |
| Mathematical sciences – mathematics | 171 | 101 | 31,113 | 16,711 | – | – | 31,284 | 16,812 |
| Biological sciences | 14,069 | 13,928 | – | – | – | – | 14,069 | 13,928 |
| Agricultural sciences | 40 | – | 27,880 | 19,260 | – | – | 27,920 | 19,260 |
| Health sciences – medicine | 12,362 | 12,362 | – | – | – | – | 12,362 | 12,362 |
| Health sciences – nursing | 59 | 42 | – | – | – | – | 59 | 42 |
| Health sciences – others | 9,176 | 5,866 | 4,659 | 2,686 | 629 | 547 | 14,464 | 9,099 |
| Others | 11,397 | 2,375 | 60,613 | 37,586 | 48,244 | 38,157 | 120,254 | 78,118 |
| TOTAL | 332,075 | 270,685 | 544,010 | 361,575 | 259,486 | 235,598 | 1,135,571 | 867,858 |

* Most of the institutions did not present distance learning data organized by knowledge area.

knowledge areas of the authorized courses, the first two areas are the same (social sciences in business and management and education), but in non-formal courses the computer sciences area is ranked third, but in the authorized courses this area did not reach 2%.

## Evolution of enrollments in different types of courses

Table 3.10 shows institutions' view in relation to the evolution of enrollments in distance learning in 2011, compared to 2010, and expectations for 2012-2013.

**Table 3.10** Evolution of enrollments in distance learning courses in 2011 (compared to 2010) and forecast for the 2012--2013 period

| Number of enrollments | v | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Authorized courses | | Non-formal courses | | Corporate courses | | Mandatory subjects | |
| | 2011 | 2012-2013 | 2011 | 2012-2013 | 2011 | 2012-2013 | 2011 | 2012-2013 |
| Increase | 63 | 102 | 74 | 98 | 37 | 66 | 33 | 56 |
| Decrease | 11 | 4 | 7 | – | 4 | – | 2 | 1 |
| Maintenance | 22 | 6 | 13 | 4 | 12 | 3 | 11 | 3 |
| Total | **96** | **112** | **94** | **102** | **53** | **69** | **46** | **60** |

Not all institutions answered this question about the evolution of enrollments in distance learning courses, possibly because they did not have all the data or because they did not offer some types of courses. Thus, the number of respondents in each situation will be considered to analyze the trends.

Most institutions answered that the number of enrollments in 2011 have increased in authorized (66%), non-formal (79%), corporate courses (70%) and in mandatory subjects (72%).

Moreover, the maintenance of the number of enrollments in 2011 was mentioned by the respondents in 23% of the authorized courses, 14% of non-formal courses, 23% of corporate courses and 24% of mandatory subjects. The decrease of enrollment was registered by 11% of the respondents in authorized courses, 7% in non-formal and corporate courses, and 5% of the respondents in mandatory subjects.

The expectation for 2012-2013 was also the increase of enrollments, corresponding to 91% in authorized courses, 96% in non-formal and corporate courses, and 93% in mandatory subjects. Thus, there is great expectation on the part of the institutions for the increase of enrollments for all kinds of distance learning courses.

### Dropouts in distance learning courses

Dropout constitutes to be a major obstacle to the development of distance learning actions. Thus, we attempted to collect data on dropout rates observed by the institutions.

It is important to highlight that the data refer to responses from 143 institutions, 38 of which did not indicate what the average dropout rate in their courses was. Table 3.11 presents data on dropout in the courses offered in 2011.

**Table 3.11** Average dropout rates in distance learning courses offered by the responding institutions

| Average dropout percentage in courses in 2011 | | | |
|---|---|---|---|
| **Authorized courses N = 81** | **Subjects N = 25** | **Non-formal courses N = 73** | **Corporate courses N = 33** |
| 20.5% | 17.6% | 23.6% | 20% |

The number of respondents varied for each type of course, as indicated in the former table. The percentages were established from this number.

It can be observed, also in Table 3.11, that the average dropout percentage in distance learning courses remained nearly 20%, being lower in mandatory subjects, with 17.6%, and higher in non-formal courses, with 23.6%.

The comparison of dropout data in 2010 with the rates in 2011 indicates few changes, as shown in Table 3.12.

**Table 3.12** Dropouts in distance learning courses in the 2010-2011 period

| Type of course | 2010 | 2011 |
|---|---|---|
| Authorized courses | 18.6% | 20.5% |
| Non-formal courses | 22.3% | 23.6% |
| Corporate courses | 7.6% | 20% |
| Subjects | – | 17.6% |

After analyzing the former table, it is possible to highlight the increase of the dropout rate in corporate courses, 12.4%. It is also important to mention that the mandatory subjects were not investigated specifically in 2010 and they were part of the authorized courses. The other types of courses did not suffer big changes in dropout rates, although they had a small increase trend in 2011.

## Distance learning courses

### Production volume

The distribution of the number of courses produced and implemented by institutions in 2011 is presented in Table 3.13.

It is important to show that, from the 181 responding educational institutions, 11 did not respond the questions about the number of courses produced and implemented in 2011.

Besides, four institutions did not report if they produced any course, but indicated the implementation of courses in 2011.

**Table 3.13** Number of courses produced and implemented by the institutions in 2011

| Number of courses | Number of institutions* | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Authorized courses | | Non-formal courses | | Corporate courses | | Mandatory subjects | |
| | Produced | Implemented | Produced | Implemented | Produced | Implemented | Produced | Implemented |
| No course | 31 | 31 | 14 | 11 | 8 | 4 | – | 5 |
| From 1 to 5 courses | 49 | 46 | 46 | 48 | 25 | 23 | 11 | 9 |
| From 6 to 10 courses | 9 | 6 | 12 | 14 | 7 | 8 | 3 | 2 |
| From 11 to 20 courses | 5 | 6 | 9 | 8 | 8 | 5 | 1 | 2 |
| More than 20 courses | 5 | 2 | 9 | 8 | 4 | 4 | 8 | 7 |
| **Total** | **99** | **91** | **90** | **89** | **52** | **44** | **31** | **25** |

* Number of indications made by the responding institutions (the same institution can produce and implement more than one type of course).

One of the institutions reported that it produced from one to five non-formal and corporate courses, but did not indicate any course in the same year.

In Table 3.13 it can be observed that, in some cases, the implementation of certain types of courses in 2011 was higher than the production, which allows us to assume that its production took place before 2011.

Most institutions informed that they produced and implemented from one to five courses in 2011; however, in the case of authorized courses, 31% of institutions informed that they did not produce or implement any course that year. In the authorized courses, the production was informed by 49% of the institutions, and the implementation by 51%; in non-formal courses, 51% of the institutions informed the production, and 54% the implementation; in corporate courses, 48% of the institutions produced, and 52% implemented. In the case of mandatory subjects, 35% produced, and 36% implemented from one to five courses.

The mandatory subjects have the highest proportional number of production (26%) and implementation (28%), in the range of more than 20 courses, when compared to other types of courses. This large number of production and implementation of courses for mandatory subjects can be attributed to the law for educational institutions for the development of this type of course.

In 2011, the total of courses offered in distance learning was 3,971 in the case of authorized/recognized courses (44%) and 5,094 in the case of non-formal courses, making a total offer of 9,065 distance learning courses that year.

In 2010, a total of 9,892 courses offered was informed: 84% of them were non-formal courses and 16% were authorized courses. In 2011, there was a slight decrease in the number of courses, but a growth of 28% in authorized and recognized courses was observed.

## Production/acquisition of distance learning courses of every type

The distance learning courses may or may not be produced by their own educational institutions, and these aspects can be found in Table 3.14.

From the 181 institutions, 23 did not report how they obtained the courses developed; therefore, the analysis of production will be made from data provided by 158 institutions. In other words, regarding the total shown in Table 3.14, it is important to note that 23 institutions did not report on how they obtained 574 courses that they offered.

Thus, the total does not refer to the 9,065 courses offered in 2011, but to 8,491 of them.

It can be verified, from Table 3.14, that most distance learning courses developed by educational institutions were produced by themselves (73%) and in partnership with other institutions (17%). Most institutions that developed their own courses are located in the Southeast (63%) and the South (23%).

In the case of the establishment of partnerships for course production, some institutions indicated that the projects for the development of courses have several institutions as partners.

The highest number of courses acquired from educational institutions, corresponding to 84% of the total of courses purchased, is located in the Northeast region.

Only 5.5% of the courses were acquired from commercial companies: 53% of them by institutions located in the Midwest and 45% in the Southeast.

The distribution of distance learning courses according to the acquisition means and company size can be observed in Table 3.15.

The data from Table 3.15 indicate that, from 73% of courses produced by the institution itself, 66% belong to large institutions and 24% to medium ones. This means that 90% of the courses developed in distance learning are produced by large and medium institutions.

Moreover, 90% of the courses produced in partnership with other institutions are also from large companies. Therefore, the partnerships characterized with either public or private companies are made with large companies.

Micro companies are responsible for 12% of the courses offered, 44% of them are produced by the institution itself, and 38% are purchased from educational institutions.

**Table 3.14** Distribution of the number of distance learning courses in 2011, according to the means of acquisition and geographical location of the educational institutions

| Acquisition means/production of distance learning courses | Number of courses | | | | | Total |
|---|---|---|---|---|---|---|
| | North | Northeast | Midwest | Southeast | South | |
| Produced by the institution | 24 | 399 | 428 | 3,904 | 1,453 | **6,208** |
| Purchased from a commercial company | – | 8 | 205 | 173 | – | **386** |
| Purchased from an educational institution | 6 | 400 | 32 | 36 | – | **474** |
| Produced in partnership with other institutions | 14 | 55 | 393 | 922 | 39 | **1.423** |
| **Total** | **44** | **862** | **1,058** | **5,035** | **1,492** | **8,491** |

**Table 3.15** Distribution of the number of distance learning courses in 2011, according to the means of acquisition and company size of the educational institutions

| Acquisition means/production of distance learning courses | Number of courses from educational institutions/economical size | | | | | Total |
|---|---|---|---|---|---|---|
| | Micro company | Small company | Medium company | Large company | No information | |
| Produced by the institution | 457 | 156 | 1,485 | 4,094 | 16 | **6,208** |
| Purchased from a commercial company | 120 | – | – | 266 | – | **386** |
| Purchased from an educational institution | 400 | 1 | 38 | 35 | – | **474** |
| Produced in partnership with other institutions | 62 | 29 | 9 | 1,306 | 17 | **1,423** |
| **Total** | **1,039** | **186** | **1,532** | **5,701** | **33** | **8,491** |

**Table 3.16** Distribution of the number of distance learning *courses* in 2011, according to the means of acquisition and legal nature of the educational institutions

| Legal status | Number of courses | | | | Total |
|---|---|---|---|---|---|
| | Own production | Purchase from commercial company | Purchase from educational company | Partnership with other institutions | |
| Federal public | 273 | – | – | 41 | **314** |
| State public | 57 | – | – | 1 | **58** |
| Municipal public | – | – | – | – | **–** |
| Private with for-profit purposes | 1,527 | 120 | 33 | 1,033 | **2,713** |
| Private with for-profit purposes | 1,651 | 7 | 400 | 97 | **2,155** |
| Educational foundation | 1,436 | – | – | 12 | **1,448** |
| State department of education | 18 | – | – | 60 | **78** |
| Municipal department of education | 4 | – | – | – | **4** |
| Company of the "S" system | 821 | 38 | 15 | 99 | **973** |
| Company not exclusively educational | 250 | 14 | – | 12 | **276** |
| Military public entity | 115 | – | 3 | – | **118** |
| Judicial public entity | 11 | 2 | – | 24 | **37** |
| Health public entity | 1 | – | – | 9 | **10** |
| NGO | 25 | – | – | 9 | **34** |
| Other | 19 | 205 | 23 | 26 | **273** |
| **Total** | **6,208** | **386** | **474** | **1,423** | **8,491** |

The courses purchased from medium companies correspond to 18% of the total, 96% of which are produced by them.

The courses produced by small companies correspond to less than 2% of total, and most of them are produced by the institution itself (84%).

In summary, most distance learning courses were produced by the institution itself, by large companies or in partnership with other institutions, and are predominantly located in the Southeast.

Regarding the distribution of distance learning courses in 2011, according to the means of acquisition and legal nature of the educational institution, see Table 3.16.

The private institutions with profit purposes have the highest number of courses (32%): 56% of them are their own

production and 38% are produced in partnership; only 4% are purchased from commercial companies.

Non-profit private institutions have 25% of the total of courses offered. From these, 76% are produced by the institutions themselves and 18% are purchased from commercial companies.

Educational foundations have 17% of the total of courses offered and 99% are produced by them.

In summary, the highest number of courses offered in distance learning is from private institutions which produce their own courses. The highest number of courses purchased from commercial companies is offered by institutions that did not identify their legal nature.

## Number of authorized/recognized courses

The responding institutions informed that they had 3,971 authorized and recognized distance learning courses in 2011. Table 3.17 presents the distribution of these courses by the legal nature of the institutions, geographical region and educational level.

In Table 3.17, it can be observed that most of the authorized/recognized courses are from private institutions with for-profit purposes, corresponding to 40% of the total, 89% of which are from authorized institutions and 11% from corporate institutions.

**Table 3.17** Distribution of the number of authorized/recognized distance learning courses in 2011, according to the legal nature, regional location and educational level of the educational institutions

| Institutional characteristics | | | Number of authorized/ recognized courses | | TOTAL |
|---|---|---|---|---|---|
| | | | Accredited Institutions | Corporate institutions | |
| Legal nature | Public | Federal | 652 | 6 | **658** |
| | | State | 76 | – | **76** |
| | | Municipal | – | – | **–** |
| | Private | Profit | 1,437 | 170 | **1,607** |
| | | Non-profit | 939 | 9 | **948** |
| | Educational foundation | | 100 | – | **100** |
| | Department of education | State | – | 39 | **39** |
| | | Municipal | – | – | **–** |
| | Companies | "S" System | 343 | 3 | **346** |
| | | Not exclusively educational | 2 | – | **2** |
| | Public entity | Military | – | 3 | **3** |
| | | Judiciary | – | – | **–** |
| | | Health department | 4 | – | **4** |
| | NGO | | – | – | **–** |
| | Other | | – | 188 | **188** |
| **Total** | | | **3,553** | **418** | **3,971** |
| Region | North | | 14 | – | **14** |
| | Northeast | | 600 | 6 | **606** |
| | Midwest | | 206 | 9 | **215** |
| | Southeast | | 1,534 | 400 | **1,934** |
| | South | | 1,199 | 3 | **1,202** |
| **Total** | | | **3,553** | **418** | **3,971** |

(*continues*)

(*continued*)

| Institutional characteristics | | | | Number of authorized/ recognized courses | | TOTAL |
|---|---|---|---|---|---|---|
| | | | | Accredited Institutions | Corporate institutions | |
| Educational level/ modality | Basic education | | | 2 | – | **2** |
| | High school | | | 12 | – | **12** |
| | Youth and adult education (basic and high school) | | | 62 | – | **62** |
| | Vocational technical course | | | 50 | 140 | **2** |
| | Higher education | Sequential | Specific formation | 4 | 187 | **191** |
| | | | Complementary studies | 8 | 30 | **38** |
| | | Undergraduation | Bachelor degree | 94 | 6 | **100** |
| | | | Teaching license | 165 | – | **165** |
| | | | Bachelor degree and teaching license | 6 | – | **6** |
| | | | Technological | 150 | – | **150** |
| | | | Semi on-site subjects | 615 | – | **615** |
| | | | Distance learning subjects (limit of 20% of the curriculum) | 1,424 | – | **1,424** |
| | | | Subjects in dependence in the distance learning modality | 70 | – | **70** |
| | | Graduate | Specialization graduate course | 534 | 52 | **586** |
| | | | Specialization graduate course - MBA | 118 | 3 | **121** |
| | | | Research graduate course – master's degree | 4 | – | **4** |
| | | | Research graduate course – doctor's degree | – | – | **–** |
| | | | Distance learning subject (part of a broader course) | 235 | – | **235** |
| **Total** | | | | **3,553** | **418** | **3,971** |

The number of courses from private non-profit institutions corresponds to 24% of the total, and 99% of them are from accredited institutions.

The public institutions have 18% of the courses, and most of them (90%) are from the federal network.

Most of the courses indicated by the respondents are from institutions located in the Southeast (48%) and the South (30%), and most of them are accredited. In the Southeast, 79% of the courses belong to accredited institutions, and in the South, the amount is 99%. The Southeast is the one that

has the highest number of courses from corporate institutions (21% of the total).

The number of authorized distance learning courses has its highest concentration in undergraduate courses (63.5%) and graduate courses (22.5%).

It can be observed that 36% of the courses are undergraduate courses that use distance learning subject schemes (limit of 20% of the curriculum), 16% are blended subjects and 15% are specialization courses.

Thus, it can be stated that most recognized/authorized distance learning courses belong to accredited institutions, specifically in subjects of higher education on-site undergraduate courses and specialization graduate courses.

The distribution of authorized/recognized courses in 2011, according to company size and offering of the educational institution, can be observed in Table 3.18.

Table 3.18 shows that most of the recognized/authorized courses are developed by large companies (88%) and by institutions that offer on-site, distance learning and blended courses concomitantly (65%). Thus, the availability of courses of these institutions confirms the highest number of enrollments and graduates, as has already been pointed out.

Institutions that only develop authorized distance learning courses have less courses offered, corresponding to 6% of the total.

In relation to the distribution of authorized courses by knowledge area, Table 3.19 presents the data, but it is important to remember that a significant number of institutions did not indicate the distribution of courses by knowledge area, either through lack of data or because of the difficulty to accomplish such task. Thus, the analysis of this table has only trends indicated based on the information provided.

Table 3.19 shows that most authorized courses are offered by accredited institutions (93%). Corporate institutions offer 7% of the authorized courses. The highest volume of courses offered by knowledge area is concentrated in education, with 21% of the total, and in social sciences – business/management –, with 17.5%. The health area, considering medicine, nursing and others, corresponds to 9% of the total of authorized courses offered. Besides, regarding 8% of the authorized courses, the institutions did not indicate the corresponding knowledge area.

It is important to note that the courses offered in computer sciences and engineering correspond to 6% and 5.5%, respectively, of the total of authorized courses offered.

## Number of non-formal courses

Concerning non-formal courses, Table 3.20 presents their distribution, regarding the legal nature, geographical location and type of courses offered by the educational entities.

In Table 3.20, it can be observed that the highest number of non-formal courses is in private institutions (70% of the total). Of this amount, 48% are from private institutions with for-profit purposes, and 22% are from private non-profit institutions.

**Table 3.18** Distribution of the number of authorized/recognized distance learning courses in 2011, according to company size and courses offered by the educational institutions

| Institutional characteristics | | Number of authorized/recognized courses | | TOTAL |
|---|---|---|---|---|
| | | Accredited institutions | Corporate institutions | |
| Company size | Micro company | 108 | 176 | **284** |
| | Small company | 57 | – | **57** |
| | Medium company | 74 | – | **74** |
| | Large company | 3,270 | 242 | **3,512** |
| | Not informed | 44 | – | **–** |
| **Total** | | **3,553** | **418** | **3,971** |
| Course offering | Only distance learning courses | 70 | 170 | **240** |
| | Distance learning and on-site courses | 1,085 | 15 | **1,100** |
| | On-site, distance learning and semi on-site courses | 2,356 | 233 | **2,589** |
| | Not informed | 42 | – | **–** |
| **Total** | | **3,553** | **418** | **3,971** |

**Table 3.19** Distribution of the number of authorized/recognized distance learning courses in 2011, according to the knowledge areas offered by the educational institutions

| Knowledge areas | Number of authorized/recognized courses | | TOTAL |
|---|---|---|---|
| | Accredited institutions | Corporate institutions | |
| Human sciences – education | 648 | 61 | **709** |
| Human sciences – others | 51 | 1 | **52** |
| Linguistics, literature and arts | 191 | 18 | **209** |
| Social sciences – law | 227 | 2 | **229** |
| Social sciences – business/management | 557 | 37 | **594** |
| Social sciences – accounting | 105 | 10 | **115** |
| Social sciences – business | 49 | 15 | **64** |
| Social sciences – communication | 60 | 15 | **75** |
| Social sciences – others | 131 | 2 | **133** |
| Engineering | 185 | 6 | **191** |
| Computer sciences | 200 | 5 | **205** |
| Mathematical sciences – mathematics | 140 | – | **140** |
| Biological sciences | 87 | – | **87** |
| Agricultural sciences | 34 | – | **34** |
| Health sciences – medicine | 15 | 2 | **17** |
| Health sciences – nursing | 40 | 1 | **41** |
| Health sciences – others | 239 | – | **239** |
| Others | 195 | 62 | **257** |
| **Total** | **3,154** | **237** | **3,391** |

The non-formal courses from private institutions with for-profit purposes (48%) correspond to 71% of non-accredited institutions, 27% of accredited institutions and 2% of corporate institutions.

The non-formal courses from private non-profit institutions (22%) correspond to 68% of accredited institutions, 31% of accredited institutions and 1% of corporate institutions.

Most of the non-formal courses are offered by institutions located in the Southeast (53%) and in the Midwest (53%), in non-accredited institutions. The courses of non-accredited institutions correspond to 67% of total of courses in the Midwest, and 52% of courses in the South.

The highest number of non-formal courses in corporate institutions is located in the Southeast (75%) and in the Midwest (13%).

In summary, most of the recognized/authorized and non-formal courses are from institutions located in the Southeast. The institutions in the South are ranked second in recognized/authorized courses offered, as well as those in the Midwest, in non-formal courses offered. Most of the authorized/recognized courses are from accredited institutions, and non-formal courses are from non-accredited institutions. Moreover, most of the corporate institutions that develop authorized/recognized and non-formal courses are in the Southeast.

Regarding the types of non-formal courses, it can be observed in Table 3.20 that most of them refer to improvement (41%) and update (31%) courses. The professional initiation courses correspond to 11%. It is also important to note that most of these courses are developed by non-accredited institutions.

One statement regarding the authorized/recognized and non-formal courses is that they are intended to serve a more adult and mature audience, either in institutional training (undergraduate and graduate courses) or in continued education (improvement and updating).

Table 3.21 presents the distribution of non-formal courses according to company size and type of offer in 2011.

The data from Table 3.21 indicates that most of the non-formal courses are offered by large companies, corresponding to 70% of the total. The micro companies offer 18% of the total of non-formal courses.

**Table 3.20** Distribution of the number of non-formal distance learning courses in 2011, according to the legal nature, regional location and type of course offered by the educational institutions

| Institutional characteristics | | | Number of non-formal courses | | | TOTAL |
|---|---|---|---|---|---|---|
| | | | Accredited institutions | Non-accredited institutions | Corporate institutions | |
| Legal nature | Public | Federal | 81 | – | 54 | **135** |
| | | State | 22 | – | – | **22** |
| | | Municipal | – | – | – | **–** |
| | Private | Profit | 663 | 1,730 | 44 | **2,437** |
| | | Non–profit | 340 | 744 | 9 | **1,093** |
| | Educational foundation | | 57 | 21 | 180 | **258** |
| | Department of education | State | – | – | 39 | **39** |
| | | Municipal | 4 | – | – | **4** |
| | Companies | "S" System | 236 | 165 | 96 | **497** |
| | | Not exclusively educational | – | 170 | 110 | **280** |
| | Public entity | Military | – | – | 66 | **66** |
| | | Legal department | – | – | 23 | **23** |
| | | Health department | 6 | – | – | **6** |
| | NGO | | – | 34 | – | **34** |
| | Other | | – | 195 | 5 | **200** |
| **Total** | | | **1,409** | **3,059** | **626** | **5,094** |
| Region | North | | 6 | 24 | – | **30** |
| | Northeast | | 81 | 629 | 34 | **744** |
| | Midwest | | 361 | 906 | 83 | **1,350** |
| | Southeast | | 809 | 1,421 | 470 | **2,700** |
| | South | | 152 | 79 | 39 | **270** |
| **Total** | | | **1,409** | **3,059** | **626** | **5,094** |
| Type of non–formal course | Professional initiation | | 81 | 441 | 52 | **574** |
| | Operational training | | 46 | 6 | 80 | **132** |
| | Training in social/behavioral skills | | 73 | 6 | 26 | **105** |
| | Update | | 422 | 1,029 | 147 | **1,598** |
| | Improvement | | 398 | 1,381 | 299 | **2,078** |
| | University extensions (courses) | | 382 | 40 | 6 | **428** |
| | Preparation for Enem/entrance examination/etc. | | 5 | 2 | – | **7** |
| | Other | | 2 | 154 | 16 | **172** |
| **Total** | | | **1,409** | **3,059** | **626** | **5,094** |

**Table 3.21** Distribution of the number of non-formal distance learning courses in 2011, according to company size and type of course offered by the educational institutions

| Institutional characteristics | | Number of non-formal courses | | | TOTAL |
|---|---|---|---|---|---|
| | | Accredited institutions | Non-accredited institutions | Corporate institutions | |
| Company size | Micro company | 27 | 874 | 40 | **941** |
| | Small company | 57 | 130 | 6 | **193** |
| | Medium company | 124 | 68 | 180 | **372** |
| | Large company | 1,201 | 1,987 | 400 | **3,588** |
| **Total** | | **1,409** | **3,059** | **626** | **5,094** |
| Course offering | Only distance learning courses | 30 | 1,870 | 76 | **1,976** |
| | Distance learning and on-site courses | 698 | 204 | 194 | **1,096** |
| | On-site, distance learning and semi on-site courses | 680 | 985 | 356 | **2,021** |
| | Non-respondent | 1 | – | – | **1** |
| **Total** | | **1,409** | **3,059** | **626** | **5,094** |

Regarding non-formal courses offered by large companies, most of them are from non-accredited institutions (55%), and from the ones offered by micro companies, the courses correspond to 95%. The non-formal courses of non-accredited institutions correspond to 60% of the total, regardless of company size.

The institutions that offer concommitantly all modalities (on-site, distance learning and blended) are responsible for most of the non-formal courses offered (40%) It should be noted, however, that 38% of the offerings of non-formal distance learning courses are from institutions that only develop distance learning courses and belong to non-accredited institutions (95%).

It can also be observed that the corporate institutions which develop the highest number of distance learning courses are medium and large ones (92%), and most of the non-formal courses offered are on-site, distance learning and blended courses (57%).

The non-formal courses differ from the authorized ones regarding the characteristics of who offers the courses, either because of company size or because of the courses offered. The non-formal courses are developed by large companies, but the micro companies have a significant offer. In the case of non-formal courses, most of them do not need accreditation from the institution, which allows small companies to develop non-formal distance learning courses and to offer only this type of course.

Regarding the distribution of non-formal courses by knowledge area, as in the case with the authorized courses, a significant number of institutions did not report, possibly because they did not have all the data or because of the difficulty in distribution. Thus, Table 3.22 has a lower number of non-formal courses, a little more than half, but its analysis can indicate a trend.

From Table 3.22, it is possible to verify that the non-formal courses were distributed by non-accredited (51%), accredited (42%) and corporate institutions (7%).

The highest frequency of non-formal courses is in the services area (34%), and their majority is from non-accredited institutions (87%). Then, there is the social sciences area – business and management (20%) –, followed by the human sciences – education, with 19% – and social sciences – law, with 9% of the courses.

The non-formal courses in human sciences – education – are mostly from accredited institutions (80%). The non-formal courses in social sciences – business and management – are also mostly from accredited institutions (74%), and most of the social sciences – law – courses belong to non-accredited institutions (88%).

The non-formal courses of corporate institutions have the highest number in services (49% of the total) and in human sciences – education (22%).

**Table 3.22** Distribution of the number of non-formal distance learning courses in 2011, according to knowledge areas comprised in the educational institutions

| Knowledge area | Number of courses | | | TOTAL |
|---|---|---|---|---|
| | Accredited institutions | Non-accredited institutions | Corporate institutions | |
| Human sciences – education | 429 | 69 | 41 | **539** |
| Human sciences – others | 29 | 10 | – | **39** |
| Linguistics, literature and arts | 36 | 4 | 2 | **42** |
| Social sciences – law | 21 | 217 | 10 | **248** |
| Social sciences – business/management | 399 | 114 | 27 | **540** |
| Social sciences – accounting | 16 | 20 | 5 | **41** |
| Social sciences – business | 32 | 28 | – | **60** |
| Social sciences – communication | 6 | 4 | – | **10** |
| Social sciences – others | 24 | 2 | – | **26** |
| Engineering | 26 | – | 4 | **30** |
| Computer sciences | 57 | 20 | 7 | **84** |
| Mathematical sciences – mathematics | 19 | 4 | – | **23** |
| Biological sciences | 3 | 3 | – | **6** |
| Agricultural sciences | 3 | 20 | – | **23** |
| Health sciences – medicine | 2 | 1 | – | **3** |
| Health sciences – nursing | 1 | – | – | **1** |
| Health sciences – others | 22 | 78 | – | **100** |
| Others | 30 | 829 | 91 | **950** |
| **Total** | **1,155** | **1,423** | **187** | **2,765** |

## Distance learning students

Unfortunately, data concerning the age of the participants of distance learning courses had to be cancelled, so it was not possible to check the tendency for older students in distance learning courses in relation to on-site courses, as shown by the Inep data.

In Table 3.23, there is a distribution of students' gender in distance learning courses.

**Table 3.23** Distribution of students of distance learning courses, according to gender

| Type of course | Male | Female |
|---|---|---|
| Authorized courses | 43% | 57% |
| Non-formal courses | 43% | 57% |
| Corporate courses | 52% | 48% |
| Subjects | 43% | 57% |

Table 3.23 shows that most distance learning students are female, except in corporate courses, where the majority is male. Compared to the data obtained in the 2010 Census, there was a slight increase in the female population in all types of courses, around 6% in authorized courses, 1% in free courses, and 2% in corporate courses.

In undergraduate on-site courses, most students are female, and this trend continued for distance learning courses.

In addition, it is noted that, in 2011, as in 2010, based on data provided by the responding institutions, most students of distance learning courses (over 70%) study and work.

## Distance learning investments

In 2010, more than 40% of the responding institutions informed an increase in the investment in distance learning, in the 2008-2010 period, in offerings of authorized, non-formal or corporate courses. Around 22% of the institutions have kept the same investment, and only 5% of the institutions that offer authorized courses and 1% of institutions that offer non-formal courses have reduced their investments.

From 2010 to 2011, the evolution of investments by institutions in distance learning is presented in Table 3.24.

It is important to note that, from the 181 responding institutions, four did not answer and 21 indicated "does not apply" to the question regarding investments in distance learning. As the institutions could indicate investments in more than one type of course, a total of 286 responses was obtained.

Between 2010 and 2011, from the data presented in Table 3.24, it can be observed that there was an increase in investment recorded by institutions for authorized, non-formal, and corporate courses and those who have mandatory subjects corresponded to 65%, compared to 2010.

The percentages related to institutions' responses, relating to the increase in investments, when considered the type of courses, were 70% for authorized courses, 65% for non-formal and corporate courses, and 54% for mandatory subjects. Thus, it can be observed that the highest percentage of investment growth belongs to the authorized courses, and the lower percentage belongs to mandatory subjects.

Percentages in relation to maintenance of investments, considering all types of courses, were 24%, and those in relation to decrease were 5% of the answers. The highest percentage of investment maintenance was related to the mandatory subjects (44%), and non-formal courses obtained the highest percentage of answers concerning investment decrease (8%).

Thus, it can be observed that, between 2010 and 2011, the responding institutions increased the investment in authorized courses; they maintained the investment in mandatory subjects, and decreased the investments in non-formal courses. In general, there was an increase of investment in 65 of the responding institutions.

The focus of investments performed by distance learning institutions can be observed in Table 3.25.

In Table 3.25, considering all courses (authorized, non-formal, corporate and mandatory subjects), the focus of investment is maintained in the production of courses/modules or contents in 2011 (25% of the answers) and also in estimates for 2012 (27% of the answers). This result confirms the data trend of 2010, which was also concentrated in the development of courses.

That result is followed by hiring of staff, with 18% of the answers, for 2011; the expectations for hiring of staff in 2012, on the other hand, dropped to 13%; technology and innovation received 17% of the indications in 2011, with expectation of

**Table 3.24** Evolution of institutional investments in distance learning between 2010 and 2011

| Characteristics of investments in distance learning | Number of institutions | | | |
|---|---|---|---|---|
| | Authorized courses | Non-formal courses | Corporate courses | Mandatory subjects |
| Increase | 69 | 61 | 38 | 23 |
| Decrease | 6 | 7 | 1 | 1 |
| Maintenance | 23 | 25 | 19 | 19 |
| **Total** | **98** | **93** | **58** | **43** |

**Table 3.25** Profile of investments of distance learning institutions in 2011, and forecast for 2012

| Investment area in distance learning | Number of indications made | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Authorized courses | | Non-formal courses | | Corporate courses | | Mandatory subjects | |
| | 2011 | 2012 | 2011 | 2012 | 2011 | 2012 | 2011 | 2012 |
| Hiring of staff | 30 | 24 | 13 | 6 | 5 | 7 | 5 | 2 |
| Training of staff | 23 | 24 | 15 | 12 | 5 | 6 | 3 | 5 |
| Technology and innovation | 32 | 31 | 16 | 20 | 3 | 7 | – | 3 |
| Sales and marketing | 13 | 11 | 12 | 12 | 2 | 2 | – | 1 |
| Production of new courses/ modules and content | 30 | 38 | 25 | 22 | 14 | 16 | 5 | 4 |
| Logistics and infrastructure | 31 | 25 | 13 | 10 | 3 | 3 | – | 1 |
| Other | 2 | 1 | – | – | – | – | – | – |

growth for 2012, with 20% of indications. In 2010, focus of investment in hiring of staff was the second highest frequency of answers, but in 2011 it ranked third.

If the expectation of hiring of staff as the focus of investment is lower in 2012 than it was in 2011, the training of staff slightly increases its expectations for 2012, except in answers regarding non-formal courses, which dropped from 16% in 2011 to 14% in 2012.

Sales and marketing, regardless of the type of course, was the area with least focus of investment (9% in 2011 and 2012), but they kept the trend of answers obtained in 2010, which indicated the lowest number in choices of institutions.

The focus of investment in production of new courses/modules and content had the highest number of answers for the corporate courses, which corresponded to 44% of answers, for 2011 and 39% for 2012, followed by the mandatory subjects, which corresponded to 38.5% in 2011 and 25% in 2012.

Innovation and technology as the focus of investment had a growing trend of answers from 2011 to 2012, in the non-formal corporate courses and mandatory subjects.

Besides the focus of investment presented in Table 3.25, some institutions chose other focuses, and the indications were relating to the workload of teachers, maintenance of courses offered and accreditation of the institution.

It is important to note that the organization of data for Table 3.25 should have the frequency of answers in areas where there were incidences of investments of greater relevance. Institutions should indicate only one area for each type of course considered, and in the indicated period. However, the question was understood differently and more than one answer was given, so there were answers that had to be invalidated.

The final result, with a total of answers regarding the area of greatest relevance of investments considered for each period is indicated in Table 3.26.

**Table 3.26** Final total result of answers regarding the area of greatest relevance of investments

| Answers (N = 181 institutions) | Period considered | |
|---|---|---|
| | 2011 | 2012 |
| Invalid | 21 | 31 |
| Not provided | 20 | 21 |
| Considering only one type of course | 50 | 45 |
| Considering more than one type of course | 90 | 84 |

The total number of valid answers was considered for the analysis, and not the number of institutions.

## Obstacles faced by distance learning

Institutions have faced the most diverse obstacles in achieving the distance learning courses offered by them.

In 2010, the main obstacles faced by institutions that offered authorized and non-formal courses were: dropout, resistance of educators and students, and the production cost of the courses. The expectation for these obstacles remained the same for 2011. The confirmation or not of this expectation in 2011 can be verified through the data presented in Table 3.27.

Table 3.27 shows that the main obstacles faced in authorized courses are: student dropout (16%), organizational challenges of an on-site institution that starts offering distance learning courses (13%), production costs of courses (11%), and resistance of educators to the distance learning modality (10%).

For institutions which develop non-formal courses, the main obstacles are practically the same: student dropout (19%), organizational challenges of an institution that starts to offer distance learning courses, and the production costs of the courses (11%). Unlike the case of authorized courses, in non-formal courses the main problem is the resistance of students to the distance learning modality (11%).

For institutions that develop corporate courses, the main obstacles are: the production cost of the courses (15%), students' resistance to the distance learning modality (13%), the resistance of teachers to the distance learning modality and student dropout (both with 11%).

For institutions that develop distance learning courses with mandatory subjects, the main obstacles are related to the resistance of educators to the distance learning modality (21%), students' resistance to distance learning (16%), and organizational challenges of an on-site institution that starts to offer distance learning courses (9%).

Regardless of the type of course developed, the biggest obstacles faced were, therefore, student dropout (15%), resistance of educators to the distance learning modality, the organizational challenges of an on-site institution that starts to offer distance learning (11%) and production cost of courses (10%).

Thus, it appears that the main obstacles encountered in 2011 were the same ones considered in 2010.

Respondents also indicated other obstacles that were not in the list provided, such as: time for course development, need for infrastructure investments in distance learning, and, in the case of remote centers of student support, hiring and training of teachers and employees, lack of disclosure, and difficulties caused by the current legislation.

As it can be seen, despite the distance learning modality development, there are obstacles that need to be that overcome, so this method can be effective in student learning.

**Table 3.27** Obstacles faced by institutions in the distance learning courses offered in 2011

| Obstacles | Number of institutions | | | |
|---|---|---|---|---|
| | Authorized/ recognized courses | Non-formal courses | Corporate courses | Mandatory subjects |
| Resistance of educators to the distance learning modality | 36 | 21 | 12 | 25 |
| Resistance of students to the distance learning modality | 23 | 25 | 14 | 19 |
| Production costs of courses | 39 | 25 | 17 | 6 |
| IT support for teachers | 24 | 12 | 7 | 9 |
| Pedagogical and IT support for students | 19 | 12 | 9 | 7 |
| Union agreements that define the workload of teachers | 18 | 3 | 3 | 5 |
| Organizational challenges of on-site institutions that start to offer distance learning courses | 47 | 26 | 9 | 11 |
| Student dropout | 58 | 44 | 12 | 9 |
| Evaluation of courses | 17 | 5 | 1 | 1 |
| Demands of students interested in courses | 26 | 20 | 6 | 1 |
| Integration of PCTs to courses | 18 | 5 | 6 | 10 |
| Adequacy of courses for students with special educational needs (to meet current legislation) | 24 | 14 | 6 | 8 |
| Obtainment of profit from the courses | 14 | 16 | 7 | 6 |

# 4 Professionals who work with distance learning

The quality of distance learning depends mainly on the infrastructure of personnel involved in the projects. Thus, in 2011, ABED decided to present information related to institutions' teams and to offer a picture of the distance learning area.

In 2010, information on institutions registered 5,055 professionals working in distance learning. In 2011, although the responding institutions were fewer, the number listed was 8,803, with a growth of 42.5%, which indicates a significant concern with personnel infrastructure improvement by institutions working with distance learning. Most professionals (always above 70%) in all teams (administrative, planning, production and implementation) are full-time employees. In 2009, 65% of these professionals were full-time employees, showing an increase in the number of workers in all teams.

From information obtained in 2011 for the training of professionals, most of them indicate that they have a higher education degree (74%), 19% of whom have a specialization, 16% a master's degree, and 12% a doctorate.

## Teams that work with distance learning

The setting of teams that work in distance learning, according to the geographical region, legal category of institutions and size of companies, is presented in Table 4.1.

Table 4.1 shows that most teams of institutions that develop distance learning are centralized (48%) and decentralized by different processes (41%). The decentralization by project corresponds to 9%, and teams external to the institution to 2%.

**Table 4.1** Numerical setting of teams working in distance learning, according to the regional location of the institution in 2011

| Characteristics | | Number of institutions according to team setting | | | |
|---|---|---|---|---|---|
| | | Centralized for all projects | Decentralized by different projects | Decentralized by different processes | External to institution |
| Region | North | 6 | 1 | 2 | – |
| | Northeast | 11 | 1 | 13 | – |
| | Midwest | 8 | 1 | 11 | 3 |
| | Southeast | 41 | 10 | 27 | 1 |
| | South | 17 | 2 | 19 | – |
| **Total** | | **83** | **15** | **72** | **4** |
| Legal category | Federal public | 9 | 4 | 15 | – |
| | State public | 9 | 1 | 5 | – |
| | Municipal public | – | – | – | – |
| | Private with profit purposes | 20 | 1 | 20 | – |
| | Private with non-profit purposes | 18 | 3 | 13 | – |
| | Educational foundation | 1 | – | 2 | – |

(*continues*)

(*continued*)

| Characteristics | | Number of institutions according to team setting | | | |
|---|---|---|---|---|---|
| | | Centralized for all projects | Decentralized by different projects | Decentralized by different processes | External to institution |
| Legal category | State department of education | – | – | 1 | – |
| | Municipal department of education | 1 | – | – | – |
| | Company of the "S" system | 11 | 2 | 8 | 1 |
| | Company not exclusively educational | 4 | 2 | 4 | – |
| | Military public entity | – | – | – | – |
| | Legal public entity | 1 | – | – | – |
| | Health public entity | – | – | 1 | – |
| | NGO | – | 1 | – | 1 |
| | Other | 9 | – | 3 | 2 |
| | Non-respondent | – | 1 | – | – |
| **Total** | | **83** | **15** | **72** | **4** |
| Size | Micro company | 12 | – | 8 | – |
| | Small company | 8 | 1 | 9 | 1 |
| | Medium company | 8 | 2 | 5 | – |
| | Large company | 55 | 12 | 50 | 3 |
| **Total** | | **83** | **15** | **72** | **4** |

Proportionally, regarding regions, the institutions that have teams organized in a central manner account for 66% in the Northern and 52% in the Southeast. The decentralization of teams by processes corresponds to 55% of institutions in the Midwest and 52% in the Northeast.

The Midwest has more teams external to the institution, corresponding to 75% of the total. None of the institutions of the North, Northeast and South has an organization of the teams external to the institution.

Most institutions that have a centralized team are private with profit purposes (24%). Then comes the non-profit institutions (22%), and, finally, the ones from the "S" system (13%).

Furthermore, it is also possible to observe that a large number of the institutions that have a decentralized team by different processes is private with profit purposes (28%), followed by non-profit institutions (18%), and the ones from the "S" system (11%).

It can be also said that the private for profit companies have 49% of the teams that work with distance learning centralized and 49% with distance learning decentralized by processes; only 2% of them are decentralized by projects and none of them has a team external to the institution.

The private non-profit companies have a centralized organization of teams (52%). From the 38% that are decentralized by different processes, 9% are decentralized by projects.

From the "S" system companies, 50% organize their teams in a centralized manner, 36% in a decentralized manner by processes, and only 9% of them are decentralized by projects.

From the companies that have centralized teams, 66% are large, 14% micro companies, 10% small, and 10% medium companies.

Table 4.2 shows data related to the academic profile of professionals that work with distance learning and their distribution according to geographical region and size of companies. It is important to note that, from the 181 institutions, forty-eight

(26%) did not answer the question referring to the academic profile. The answers related in this table refer, thus, to 133 institutions (74%).

The data from Table 4.2 refers to institutions' information that indicated a total of 8,803 professionals working with distance learning.

Table 4.2 shows that most of the professionals have higher education (74%), 19% of whom have a specialization, 16% have a master's degree and 12% have a doctorate. However, it was not possible to get any information regarding the formation of 18% of the professionals.

Moreover, only 4% of the professionals that work with distance learning have high school education, 1% have technical education and 3% were categorized as *others*.

The highest number of professionals works in public companies (3,559), corresponding to 40% of the total, and in private companies, with or without profit purposes (2,256), corresponding to 26% of the total. The department of education has 19% of the total (1,651), and it is noteworthy that it has made available almost no information about its professionals; in other words, 96% of the secretariats do not have available information concerning the training of distance learning professionals.

Considering only those professionals who have a master's degree or a doctorate, Table 4.2 indicates that a greater number of doctors (72%) and masters (53%) are in public institutions. And, of the total of distance learning professionals who work in public companies, 22% have a doctorate, 20% have a master's degree, and 12% have a specialization.

Private institutions with or without profit purposes have 20% of the total of doctorate and 39% of the total of masters who work with distance learning. In private institutions, of all the professionals working with distance learning, 9.5% are doctors, 23% are masters and 25% have a specialization.

In private institutions from the "S" system, from the professionals working with distance learning, 1% are doctors, 2.5% are masters and 70% have a specialization. The "S" system professionals that have a specialization correspond to 27.3% of the total of experts who work with distance learning.

Based on these data, it can be inferred that public and private institutions which mostly offer all kinds of courses (distance, blended and on-site) have a specifically academic career, which motivates professionals to pursue a master's degree and a doctorate, while in the "S" system institutions, more focused on vocational formation, professionals tend to pursue a specialization.

Table 4.3 shows the relation of the academic profile of the professionals working in distance learning according to the geographical region where they are located and to the size of the company. It should be noted that the data refers to answers from 133 institutions, because 48 did not inform what the academic training of their professionals is.

Concerning the former table, it may be noted that 4% of the professionals have a doctorate with specialization in distance learning, and 9% have a doctorate without specialization in distance learning. From the 15% who have a master's degree, 5% are masters with research focused on distance learning; and from the 19% who have a specialization, 7% are specialists in distance learning. From the 27% that have an undergraduation, 7% majored in education.

From the professionals who have a doctorate in distance learning, 50% are in the Southeast and 38% in the Southern; 88% are linked to large companies and 7% to medium-sized companies. From the professionals who have a master's degree in distance learning, 51% are in the Southeast and 23% are in the South, and 82% of the total work in large companies. From the professionals who have an expertise in distance

**Table 4.2** Academic profile of professionals that work with distance learning, according to the legal nature of the institution, in 2011

| Academic profile of distance learning team | Number of institutions/legal nature | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Educational institution | | Educational foundation | Department of education | Company of the "S" system | Company not exclusively educational | Public entity | | | NGO | Others | |
| | Public | Private | | | | | Military | Judiciary | Health | | | |
| Doctorate | 786 | 215 | 33 | 6 | 5 | 16 | 2 | – | 8 | – | 19 | 1,090 |
| Master | 724 | 530 | 19 | 16 | 17 | 17 | 7 | – | 15 | 6 | 16 | 1,367 |
| Specialization | 442 | 560 | 47 | 12 | 449 | 48 | 21 | 9 | 15 | 5 | 36 | 1,644 |
| Undergraduate | 1,372 | 510 | 130 | 24 | 152 | 38 | 70 | – | 17 | – | 45 | 2,358 |
| High school | 192 | 153 | 4 | 4 | 2 | – | – | – | 8 | – | 5 | 368 |
| Technical level | 10 | 45 | 1 | – | 7 | – | 26 | – | 1 | – | 1 | 91 |
| Others | 29 | 226 | | 2 | 6 | – | – | – | – | 9 | – | 272 |
| Information not available | 4 | 17 | | 1,587 | – | 5 | – | – | – | – | – | 1,613 |
| TOTAL | 3,559 | 2,256 | 234 | 1,651 | 638 | 124 | 126 | 9 | 64 | 20 | 122 | 8,803 |

**Table 4.3** Academic profile of the professionals working in distance learning, according to the regional location and size of the institution/company, in 2011

| Academic level | | Number of professionals | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Region | | | | | | Company size | | | | |
| | | N | NE | MW | SE | S | TOTAL | MI | S | ME | L | TOTAL |
| Doctorate | With research on distance learning | – | 23 | 17 | 167 | 127 | 334 | 14 | 3 | 23 | 294 | 334 |
| | Without research on distance learning | 1 | 468 | 36 | 221 | 30 | 756 | 6 | 27 | 14 | 709 | 756 |
| Master | With research on distance learning | 3 | 47 | 52 | 200 | 92 | 394 | 25 | 29 | 16 | 324 | 394 |
| | Without research on distance learning | 2 | 361 | 138 | 309 | 163 | 973 | 30 | 30 | 33 | 880 | 973 |
| Specialization | With research on distance learning | 4 | 59 | 60 | 404 | 41 | 568 | 45 | 25 | 48 | 450 | 568 |
| | Without research on distance learning | 12 | 134 | 81 | 454 | 395 | 1,076 | 44 | 18 | 59 | 955 | 1,076 |
| Undergraduate | In the education area | 20 | 53 | 48 | 293 | 162 | 576 | 45 | 55 | 47 | 429 | 576 |
| | In another area | 35 | 851 | 34 | 667 | 195 | 1,782 | 24 | 52 | 176 | 1,530 | 1,782 |
| Education | High school | – | 45 | 8 | 291 | 24 | 368 | 4 | 72 | 9 | 283 | 368 |
| | Technical | 1 | 3 | 2 | 81 | 4 | 91 | 1 | 39 | 2 | 49 | 91 |
| Without certification in the distance learning area | | – | – | 168 | 53 | 51 | 272 | – | 3 | 14 | 255 | 272 |
| No information available | | 1 | 5 | 1 | 1,601 | 5 | 1,613 | 6 | 6 | – | 1,601 | 1,613 |
| **TOTAL** | | **79** | **2,049** | **645** | **4,741** | **1,289** | **8,803** | **244** | **359** | **441** | **7,759** | **8,803** |

learning, 71% are located in the Southeast and work in large companies (79%).

Sixty-two percent of the professionals who work with distance learning who have a doctorate with research in another area are in the Northeast and 29% are in the Southeast, and 93% of the total work in large companies. From those who have a master's degree with research in another area, 37% are located in the Northeast and 31% in the Southeast, and 90% of the total work in large companies.

From those who have an expertise in another area, 42% are in the Southeast and 37% are in South, and 89% of the total work in large companies.

The professionals who work with distance learning and have an undergraduate degree correspond to 20% of the total. From those who have majored in education, 51% are from the Southeast and 28% are from the Southern, and 74% of the total work in large companies. From those who have an undergraduate degree in another area, 48% are in the Northeast and 37% are in the Southeast, and 86% of the total work in large companies.

It is also important to note that the professionals who have a high school or technical degree correspond to 5% of the total. From these, 81% are from the Southern region and work in large companies (72%).

## The profile of the professionals responsible for distance learning

The profile of the professionals responsible for distance learning teams under the legal category of institution or company, in 2011, is presented in Table 4.4.

It is noteworthy that Table 4.4 presents data from 163 institutions, because 18 did not inform who is responsible for distance learning. From the institutions presented in the former table, 112 (69%) indicated having only one person responsible for distance learning, 24 (15%) have two people, 15 (9%) have three people, 4 (2%) have four people, 5 (3%) have five people and 3 (2%) have seven people. Thus, the number obtained of 267 professionals who are responsible takes into account this characteristic of the institutions.

It is important to note that most of the people who are responsible have a master's degree (28%), specialization (23%) or doctorate (21%). The ones who have an undergraduate degree correspond to 16%, and those who have high school or technical education correspond to 4% of the total.

The private institutions are the ones which have more people responsible for the distance learning teams, corresponding to 43% of the total of professionals in charge (267).

**Table 4.4** Academic profile of the professionals responsible for distance learning in institutions, according to the legal nature of the institution/company, in 2011

| Academic profile of the distance learning team | Number of institutions/legal nature | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Educational institution | | Educational foundation | Department of education | Company of the "S" system | Company not exclusively educational | Public entity | | | NGO | Others | |
| | Public | Private | | | | | Military | Judiciary | Health | | | |
| Doctorate | 28 | 16 | 4 | 2 | 2 | 1 | 1 | – | – | – | 1 | 55 |
| Master | 17 | 40 | 4 | 3 | 6 | – | 2 | – | 1 | – | 2 | 75 |
| Specialization | 11 | 23 | 1 | – | 16 | 5 | 1 | 1 | – | – | 4 | 62 |
| Undergraduate | 10 | 20 | 2 | – | 8 | 2 | 1 | – | – | – | – | 43 |
| High school education | 2 | 4 | – | – | – | – | – | – | – | – | – | 6 |
| Technical education | 1 | 4 | – | – | 1 | – | – | – | – | – | – | 6 |
| Others | 3 | 5 | – | – | 3 | – | – | – | – | 1 | – | 12 |
| Information not available | 1 | 2 | – | – | 2 | 2 | – | – | – | – | – | 8 |
| **TOTAL** | **73** | **114** | **11** | **5** | **38** | **11** | **5** | **1** | **1** | **1** | **7** | **267** |

In private institutions, 35% of the professionals responsible have a master's degree, 20% have a specialization, and 14% have a doctorate. In public institutions, 38% have a doctorate, 23% have a master's degree, 15% have a specialization and 14% have an undergraduation.

In the department of education, all the people in charge have a doctorate or a master's degree. In the "S" system, 42% of these professionals have a specialization, 16% have a master's degree and 5% have a doctorate.

The professionals responsible for distance learning that have high school or vocational education correspond to 5% in public companies, 7% in private ones, 3% in the "S" system and they are not present in other institutions.

Even non-educational companies count on professionals with higher education, specialization and doctorate among those responsible for distance learning.

It can be stated, therefore, that most of the professionals responsible for the distance learning teams have a higher education level with a master's degree, specialization or doctorate. Moreover, the majority of doctors are in public companies, the highest percentage of masters in private companies and most experts are in companies of the "S" system.

Still regarding the profile of the professionals in charge according to the region in which the institution is located and its size, Table 4.5 provides further details.

Table 4.5 shows that the majority of professionals responsible for the distance learning teams (28%) have a master's degree,

**Table 4.5** Profile of the professionals responsible for distance learning in the institution, according to the regional location and size of the institution/company, in 2011

| Academic profile of the person in charge | | Number of institutions/geographic region | | | | | Total | Number of institutions/size of companies | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | NE | MW | SE | S | | Micro | Small | Medium | Large | |
| Doctorate | With research on distance learning | – | 8 | 6 | 12 | 8 | 34 | 3 | 3 | 2 | 26 | 34 |
| | Without research on distance learning | 1 | 6 | 1 | 7 | 6 | 21 | 2 | 1 | 3 | 15 | 21 |

(*continues*)

(*continued*)

| Academic profile of the person in charge | | Number of institutions/geographic region | | | | | Total | Number of institutions/size of companies | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | NE | MW | SE | S | | Micro | Small | Medium | Large | |
| Master | With research on distance learning | 1 | 2 | 5 | 14 | 13 | 35 | 4 | 3 | 4 | 24 | 35 |
| | Without research on distance learning | 2 | 4 | 5 | 20 | 9 | 40 | 2 | 3 | 5 | 30 | 40 |
| Specialization | With final paper on distance learning | 1 | 6 | 4 | 13 | 7 | 31 | 2 | 5 | 6 | 18 | 31 |
| | With final paper in another area | 5 | 6 | 3 | 14 | 3 | 31 | 5 | 4 | 2 | 20 | 31 |
| Undergraduate | In education | 4 | 5 | 2 | 8 | 5 | 24 | 2 | 5 | 2 | 15 | 24 |
| | In other areas | 2 | 1 | 2 | 9 | 5 | 19 | 3 | 5 | 2 | 9 | 19 |
| Education | High school | – | 1 | 1 | 4 | – | 6 | – | 3 | – | 3 | 6 |
| | Technical | 1 | – | – | 4 | 1 | 6 | – | 3 | – | 3 | 6 |
| Non-academic certification in the distance learning area | | – | 2 | 1 | 5 | 4 | 12 | 2 | 2 | 2 | 6 | 12 |
| Information not available | | – | – | 2 | 6 | – | 8 | 2 | 2 | – | 4 | 8 |
| **TOTAL** | | **17** | **41** | **32** | **116** | **61** | **267** | **27** | **39** | **28** | **173** | **267** |

Obs.: From 181 institutions, 18 did not inform what the academic profile of the responsible professionals is.

and from the 40% who have a master's degree in distance learning 40% are in the Southeast and 37% are in the South. From the responsible people that have a master's degree without research on distance learning, 50% are in the Southeast and 23% are in the South.

From the professionals responsible for the distance learning teams that have a specialization with a final paper on distance learning, 42% are in the Southeast, 23% are in the South, and 19% are in the Northeast. From those who have a specialization in another area, 45% are in the Southeast, 19% are in the Northeast and 16% are in the North.

From those responsible for distance learning teams who have a doctorate with research on distance learning, 35% are in the Southeast, 24% are in the Northeast, and 24% are in the South. From the professionals responsible who have a doctorate without research on distance learning, 33% are in the Southeast, 29% are in the Northeast, and 29% are in the South.

From the professionals responsible who have an undergraduate degree in education, 33% are in the Southeast, 21% are in the South, and 21% are in the Northeast. From those who have an undergraduate degree in another area, 47% are from the Southern and 26% are from the Northeast region.

It is also important to note that most of those responsible for the distance learning teams with a high school or technician level education are in the Southeast (66%). And those responsible for distance learning teams with a non-academic certification in the distance learning area account for 4% of the total: 42% of them are in the Southeast and 33% are in the South.

Regardless of the academic profile, most professionals in charge work in large companies. In fact, 76% of doctors with research on distance learning, 71% of doctorate without research on distance learning, 68% of masters with research on distance learning, 75% of masters without research on distance learning, 58% of specialists with a final paper on distance learning, and 64% of professionals with a specialization with a final paper on distance learning are in large companies.

## The training of distance learning professionals

Regarding the question of providing professional training, from 181 institutions, 14 did not report on this subject, so the data refers to 92% of the responding educational institutions. Table 4.6 presents data on the training of the distance learning team.

In Table 4.6, only 1% of the respondents reported that they do not provide training in the distance learning scope, and there was no institution in the North and Midwest, with a micro and medium company, that has chosen this alternative. From the institutions that reported on the training of the distance learning professionals, seven are located in the Southeast, and only one in the South. Among those that do not offer training to their employees, four are small companies and six are large companies.

From the 19% of the institutions that offer training for planners and tutors, 44% are located in the Southeast, and 23% are located in the South.

The distribution of answers does not indicate significant differences related to professionals who receive training, ranging from 15% to 19%.

In the Northeast, the largest number of institutions provides training for professionals of planning and tutoring, and facilitators, mediators and coordinators of the courses. Yet, in the institutions of the Northern region, the training of administrative personnel and facilitators, mediators and coordinators of courses stands in first place.

The institutions of the Southern region showed the highest number of answers for the training of facilitators, mediators and coordinators of course, and for the training of tutors and planners as well.

It is for professionals in the support area that less need for training is observed by the companies.

In relation to company size, all micro, small, medium and large companies have chosen the answer "training of planners and tutors" more frequently.

Thus, it can be said that regardless of geographical region and company size, many institutions are worried about training distance learning professionals, observing a small highlight for planners and tutors. This data can indicate a greater concern about the development and implementation of courses.

**Table 4.6** Profile of institutions regarding the training offered to professionals, according to their regional location and size, in 2011

| Training of professionals | Number of institutions/ geographic region | | | | | TOTAL | Number of institutions/size of companies | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | NE | MW | SE | S | | Micro | Small | Medium | Large | |
| Institution does not provide training in the distance learning scope | – | 2 | – | 7 | 1 | 10 | v | 4 | – | 6 | 10 |
| Institution provides training to the administrative team | 6 | 18 | 13 | 40 | 26 | 103 | 8 | 7 | 8 | 80 | 103 |
| Institution provides training to the production team | 2 | 17 | 15 | 48 | 26 | 108 | 10 | 10 | 9 | 79 | 108 |
| Institution provides training to the implementation team | 3 | 18 | 13 | 43 | 25 | 102 | 9 | 10 | 7 | 76 | 102 |
| Institution provides training to the support team | 2 | 18 | 12 | 45 | 25 | 102 | 7 | 10 | 8 | 77 | 102 |
| Institution provides training to planners and tutors | 4 | 19 | 18 | 56 | 29 | 126 | 13 | 11 | 11 | 91 | 126 |
| Institutions provides training to facilitators, mediators and course coordinators | 6 | 19 | 21 | 45 | 31 | 122 | 12 | 10 | 11 | 89 | 122 |
| Others | – | – | 1 | 3 | 4 | 8 | 3 | – | – | 5 | 8 |
| **TOTAL** | **23** | **111** | **93** | **287** | **167** | **681** | **62** | **62** | **54** | **503** | **681** |

Table 4.7 below presents data related to the training of professionals in 2011, according to the legal nature of the 167 responding institutions.

Table 4.7 shows that, among the institutions that do not offer training to distance learning professionals, one is a public company, five are private companies with or without profit purposes, one institution belongs to the "S" system, two are not exclusively educational companies and one is a military company.

The public and private institutions presented a higher frequency of indications for the training of planners and tutors (responsible for student support in terms of content) and secondly for facilitators, mediators and course coordinators (responsible for other types of support that are needed by students).

**Table 4.7** Profile of institutions regarding the offering of training for professionals, according to their legal nature, in 2011

| Academic profile of the person responsible for distance learning | Number of institutions/legal nature | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Educational institutions | | Educational foundation | Department of education | Company of the "S" system | Company not exclusively educational | Public entities | | | NGO | Others | |
| | Public | Private | | | | | Military | Judiciary | Health | | | |
| Institution does not provide training in the distance learning scope | 1 | 4 | – | – | 1 | 2 | 1 | – | – | – | 1 | 10 |
| Institution provides training to the administrative team | 31 | 47 | 2 | 1 | 13 | 2 | 1 | 1 | 1 | 1 | 3 | 103 |
| Institution provides training to the production team | 34 | 49 | 3 | 2 | 11 | 2 | 1 | 1 | 1 | 1 | 3 | 108 |
| Institution provides training to the implementation team | 30 | 46 | 4 | 1 | 12 | 2 | 1 | 1 | 1 | 1 | 3 | 102 |
| Institution provides training to the support team | 34 | 45 | 4 | 1 | 11 | 2 | 1 | 1 | 1 | 1 | 1 | 102 |
| Institution provides training to planners and tutors | 40 | 57 | 4 | 2 | 14 | 3 | 1 | 1 | 1 | 1 | 2 | 126 |
| Institutions provides training to facilitators, mediators and course coordinators | 35 | 55 | 3 | 2 | 19 | 2 | 1 | 1 | 1 | 1 | 2 | 122 |
| Others | 2 | 4 | – | – | 2 | – | – | – | – | – | – | 8 |
| **Total** | **207** | **307** | **20** | **9** | **83** | **15** | **7** | **6** | **6** | **6** | **15** | **681** |

The educational foundations were distributed among the training of the implementation team, of the support team, and of tutors and planners, in which the major focus is on professionals associated to the implementation of courses.

The "S" system institutions presented a higher frequency of answers for training of facilitators, mediators and course coordinators, and also for the training of planners and tutors.

The non-educational companies presented a higher frequency for the training of planners and tutors.

It is important to emphasize that most companies promote training of their professionals who work with distance learning, regardless of their nature and the kind of professionals involved.

In relation to the training of distance learning professionals, concerning the employment relationship they have with the institutions, 48% reported providing training for the professional team (permanent team of the institution), 26% provide training to interns and fellows, and 17% offer training for outsourced professionals (self-employed or outsourced).

## Methods of selection of distance learning teams in 2011

The methods of selection of distance learning teams in 2011, indicated by institutions, are organized in Table 4.8. It is important to note that 49 institutions did not provide information on this topic.

Most institutions, nearly 60%, perform the hiring of distance learning professionals of all teams by free selection, analyzing resumes or through interviews. The selection by examination is performed in nearly 20% of them and by indication of another employee in nearly 15%. There is no significant difference in selections of different teams.

## Admission and layoffs in distance learning teams in 2011

Despite the fact that 46 institutions have failed to respond to the question regarding the admission of employees in distance learning teams in 2011, the data reported by respondents is shown in Table 4.9.

There was a variation in the number of responding institutions for each type of course, due to the presence or not of different types of courses. Therefore, the analysis was made by means of percentages in relation to the number of answers.

From Table 4.9, it is possible to notice that, regardless of the course, 37% of the institutions indicated not having performed any hiring, 28% indicated that there was up to 10% of hiring, 15% confirmed that there was between 11% and 20%

**Table 4.8** Distribution of selection methods of members from different teams that work with distance learning

| Selection methods | Team | | | | |
|---|---|---|---|---|---|
| | Administrative | Planning | Production | Implementation | Technical support |
| Free selection (by resume and interview) | 83 | 80 | 82 | 81 | 75 |
| Recommendation of another employee | 19 | 15 | 18 | 21 | 17 |
| Selection by examination | 29 | 26 | 29 | 28 | 29 |

**Table 4.9** Distribution of hiring of distance learning professionals, according to the course type offered by institutions

| Percentage ranges of hiring in relation to the number of team members | Types of courses | | | |
|---|---|---|---|---|
| | Authorized/recognized courses | Non-formal courses | Corporate courses | Mandatory subject |
| No hiring | 21 | 36 | 12 | 9 |
| Up to 10% | 19 | 29 | 6 | 6 |
| Between 11% and 20% | 15 | 8 | 7 | 1 |
| More than 20% | 16 | 11 | 8 | 7 |

of hiring, and 20% mentioned more than 20% of hiring. Thus, 63 of the answers indicate that there was hiring of professionals, and the highest number of answers (28%) refers to hiring up to 10% of professionals working in distance learning.

Regarding layoffs, 52 institutions gave no information on this subject. This means that the reference for the analysis will be the number of answers given by the institutions. Table 4.10 presents a summary of the situation of layoffs within the distance learning scope in the responding institutions.

Analyzing the data in Table 4.10, it can be verified that the answers for no layoffs in relation to the number of team members represented 72% of total. From 28% of the answers for layoffs in the range of up to 10%, the majority (58%) were in authorized courses.

Thus, it can be confirmed that there was more hiring (63%) than layoffs of team in distance learning in 2011, because only 28% indicated that layoffs occurred.

## Salary distribution in distance learning teams

The salary distribution in distance learning teams is presented below, by the main characteristic of the members of each team involved, namely: administrative, planning, production, implementation and technical support. The number of institutions that reported salary ranges and whose answers were considered valid equals 65. As many of them offer salaries in different ranges, the total of answers will exceed 65.

### Administrative team

In Table 4.11, it can be observed that the largest number of institutions pays salaries between R$ 1,001.00 and R$ 3,000.00 to their administrative professionals. However, the highest concentration is for institutions that pay salaries in the range of up to R$ 1,000.00 (29%), although there is a dispersion of answers for other salary ranges,

**Table 4.10** Distribution of layoffs of distance learning professionals, according to the course type offered by institutions

| Percentage ranges of layoffs in relation to the number of team members | Number of institutions | | | |
|---|---|---|---|---|
| | Authorized/recognized courses | Non-formal courses | Corporate courses | Mandatory subjects |
| No layoffs | 41 | 63 | 29 | 16 |
| Up to 10% | 26 | 12 | 2 | 5 |
| Between 11% and 20% | 3 | 1 | 1 | – |
| More than 20% | 3 | 1 | 2 | 1 |

**Table 4.11** Distribution of the number of institutions that reported on the salaries of their professionals in the administrative area

| Salary ranges | Number of institutions that gave information on the salaries of their administrative professionals | | | | | |
|---|---|---|---|---|---|---|
| | Up to 25% | Between 26% and 50% | Between 51% and 70% | Between 71% and 99% | 100% | Number (N = 65) |
| Up to R$ 1,000.00 | 2 | 10 | 2 | 1 | 6 | 36 |
| From R$ 1,001.00 to R$ 2,000.00 | 7 | 13 | 1 | 4 | 11 | 21 |
| From R$ 2,001.00 to R$ 3,000.00 | 12 | 4 | 1 | 2 | 2 | 21 |
| From R$ 3,001.00 to R$ 4,000.00 | 9 | 1 | 2 | 3 | 4 | 19 |
| From R$ 4,001.00 to R$ 5,000.00 | 10 | 1 | – | 1 | 1 | 13 |
| Above R$ 5,000.00 | 6 | 3 | – | 2 | 5 | 16 |

which indicates that, in the administrative team, differentiated salary ranges are paid.

It can be also noted that most institutions (30%) paid between 26% and 50% of the professionals from the distance learning administrative area salaries of up to R$ 1,000.00, 33% paid between 26% and 50% of their administrative area professionals salaries between R$ 1,000.00 and R$ 3,000.00, and 10% of them paid most professionals an amount also in this range.

## Planning team

In Table 4.12, it can be observed that the highest concentration of institutions is in the column that indicates that 100% of professionals of the planning area receive salaries in different ranges. This means that, in 33% of the cases, although there is a difference in salaries, there is a tendency to pay the same amount for all professionals in this area. The highest concentration is in the range from R$ 3,000.00 to R$ 4,000.00 (22%) and from R$ 2,000.00 to R$ 3,000.00 (21%).

Therefore, it can be said that most answers indicate that the salaries of the planning professionals correspond to the range from R$ 2,000.00 to R$ 4,000.00 (43%), and salaries above R$ 4,000.00 represent 34% of the answers.

## Production team

In Table 4.13, it can be observed that the highest concentration of answers (39%) is in the column which shows that up to 25% of the production area professionals receive salaries in different ranges. This indicates that there are several salaries for the production team in most of the institutions.

The salary range with the highest number of answers (25%) is the one between R$ 1,001.00 and R$ 2,000.00, corresponding to salaries paid to up to 25% of the employees. The payment in other ranges has also approximately the same concentration (up to 25% of the employees). It is important to note the range from R$ 4,001.00 to R$ 5,000.00, which corresponds to 23% of the answers for the payments of up to 25% of the employees.

This way, it can be noticed that the employees of the production team have different salaries, ranging from less than R$ 1,001.00 to over R$ 5,000.00, and the main range is from R$ 1,001.00 to

**Table 4.12** Distribution of the number of institutions that reported on the salaries of their professionals in the planning area

| Salary ranges | Number of institutions that gave information on the salaries of their planning professionals | | | | | |
|---|---|---|---|---|---|---|
| | Up to 25% | Between 26% and 50% | Between 51% and 70% | Between 71% and 99% | 100% | Number (N = 65) |
| Up to R$ 1,000.00 | 2 | 2 | – | – | – | 4 |
| From R$ 1,001.00 to R$ 2,000.00 | 3 | 3 | 1 | 3 | 7 | 17 |
| From R$ 2,001.00 to R$ 3,000.00 | 7 | 4 | 2 | 1 | 6 | 20 |
| From R$ 3,001.00 to R$ 4,000.00 | 3 | 7 | 1 | 3 | 7 | 21 |
| From R$ 4,001.00 to R$ 5,000.00 | 3 | 6 | – | 1 | 5 | 15 |
| Above R$ 5,000.00 | 6 | 3 | 2 | – | 6 | 17 |

**Table 4.13** Distribution of the number of institutions that reported on the salaries of their professionals in the production area

| Salary ranges | Number of intitutions that gave information on the salaries of their production professionals | | | | | |
|---|---|---|---|---|---|---|
| | Up to 25% | Between 26% and 50% | Between 51% and 70% | Between 71% and 99% | 100% | Number (N = 65) |
| Up to R$ 1,000.00 | 2 | 3 | – | – | 2 | 7 |
| From R$ 1,001.00 to R$ 2,000.00 | 9 | 3 | 3 | 5 | 8 | 28 |
| From R$ 2,001.00 to R$ 3,000.00 | 8 | 7 | 5 | 1 | 4 | 25 |
| From R$ 3,001.00 to R$ 4,000.00 | 9 | 9 | 2 | – | 7 | 27 |
| From R$ 4,001.00 to R$ 5,000.00 | 11 | 5 | 2 | 1 | 2 | 21 |
| Above R$ 5,000.00 | 8 | 3 | 1 | 1 | 1 | 14 |

R$ 2,000.00; besides, the range paid to the lowest number of professionals is over R$ 5,000.00 (11% of the answers).

## Implementation team

Table 4.14 shows that, regarding the implementation team, there is a great dispersion of answers, possibly due to the number of professionals involved in this area.

The highest concentration of answers is in the range of up to 25% of the employees, with 36% of the answers for the salary range from R$ 1,001.00 to R$ 2,000.00 (27%). It is also observed that 36% of the answers in the range from R$ 1,001.00 to R$ 2,000.00 correspond to the answers of 100% of the employees.

Moreover, it can be noticed that 20% of the answers in the range of up to R$ 4,000.00 correspond to 20% of the answers, and their highest concentration is in the column of up to 25% and between 26% and 50% of the employees.

Therefore, it can be stated that most professionals of the implementation team were paid between R$ 1,001.00 and R$ 2,000.00, and that between 25% and 50% of the professionals were paid up to R$ 4,000.00.

## Technical support team

Regarding the professionals of technical support, it is observed, in Table 4.15, that there is a concentration on the differentiation of salaries. Most of the answers for the salaries of up to 25% of the professionals (35%) correspond to the range from R$ 2,001.00 to R$ 4,000.00, with 47% of the answers. And between 26% and 50% of the employees, which corresponds to 26% of the total, are in the range from R$ 1,001.00 to R$ 3,000.00.

It is noteworthy that 28% of the answers are concentrated in the range from R$ 1,001.00 to R$ 2,000.00, and most of the answers refer to 100% of the professionals (34%).

**Table 4.14** Distribution of the number of institutions that reported on the salaries of their professionals in the implementation area

| Salary ranges | Number of institutions that gave information on the salaries of their implementation professionals | | | | | |
|---|---|---|---|---|---|---|
| | Up to 25% | Between 26% and 50% | Between 51% and 70% | Between 71% and 99% | 100% | Number (N = 65) |
| Up to R$ 1,000.00 | 2 | 4 | 1 | 2 | 2 | 11 |
| From R$ 1,001.00 to R$ 2,000.00 | 4 | 6 | 5 | 3 | 10 | 28 |
| From R$ 2,001.00 to R$ 3,000.00 | 11 | 6 | 1 | 1 | 5 | 24 |
| From R$ 3,001.00 to R$ 4,000.00 | 8 | 3 | 1 | 1 | 7 | 20 |
| From R$ 4,001.00 to R$ 5,000.00 | 6 | 4 | 2 | | 1 | 13 |
| Above R$ 5,000.00 | 6 | 2 | – | – | – | 8 |

**Table 4.15** Distribution of the number of institutions that reported on the salaries of their professionals in the technical support area

| Salary ranges | Number of institutions that gave information on the salaries of their technical support professionals | | | | | |
|---|---|---|---|---|---|---|
| | Up to 25% | Between 26% and 50% | Between 51% and 70% | Between 71% and 99% | 100% | Number (N = 65) |
| Up to R$ 1,000.00 | 2 | 4 | 1 | 2 | 2 | 11 |
| From R$ 1,001.00 to R$ 2,000.00 | 5 | 8 | 3 | 3 | 10 | 29 |
| From R$ 2,001.00 to R$ 3,000.00 | 9 | 6 | 1 | 1 | 5 | 22 |
| From R$ 3,001.00 to R$ 4,000.00 | 8 | 3 | 1 | 1 | 7 | 20 |
| From R$ 4,001.00 to R$ 5,000.00 | 6 | 4 | 2 | – | 1 | 13 |
| Above R$ 5,000.00 | 6 | 2 | – | – | – | 8 |

## Production time of distance learning courses in 2011

Table 4.16 shows data concerning time estimates to produce different types of courses by distance learning teams, although this question was not answered by 41 institutions.

In Table 4.16, the highest frequency of answers for the authorized courses refers to the estimate of more than 12 months for their production (38%), followed by the range from 6 to 12 months (25%). This means that the responses regarding estimates of six to more than twelve months for the production of authorized courses correspond to 63% of the answers. The range from 5 to 6 months had 22% of the answers, and the range from 1 to 3 months had the lowest percentage (15%).

The non-formal courses have the highest frequency of responses in the range from 1 to 3 months (38%) and from 5 to 6 months (30%). Therefore, the non-formal courses have 68% of the responses in the range from 1 to 6 months, which means that most institutions take up to six months to produce non-formal courses.

The corporate courses have 48% of the answers in time estimates in the range from 1 to 3 months, and 31% in the range from 4 to 6 months of production.

In mandatory subjects, it can be noticed that the required time range of over 12 months corresponded to 44% of the answers, but the range from 1 to 3 months of production was noted in 31% of the answers. It seems that the greatest disparity of answers is found in terms of percentage by ranges.

Regardless of specific types of courses, the greatest number of answers (32%) is in the range from 1 to 3 months for the production of courses. And the greatest number of responses regarding this time refers to the non-formal (42%) and corporate (24%) courses. Possibly these estimates of shorter time are due to the shorter duration of non-formal and corporate courses.

**Table 4.16** Distribution of average time spent by institutions in the production of their distance learning courses

| Average production time | Type of course | | | |
|---|---|---|---|---|
| | Authorized/ recognized courses | Non-formal courses | Corporate courses | Mandatory subject |
| Less than one month | – | 9 | 2 | – |
| 1 to 3 months | 13 | 36 | 20 | 16 |
| 4 to 6 months | 19 | 29 | 13 | 7 |
| 6 to 12 months | 22 | 11 | 5 | 2 |
| More than 12 months | 33 | 11 | 2 | 20 |

## Characteristics of teams of distance learning professionals (action types, functions, links, gender, age and skills)

From the 169 institutions that answered the question concerning the type of action developed, 68% reported that they develop, implement and manage technologies for distance learning courses. Among them, 19% develop, implement and manager the courses, 7% only implement and manager courses, 4% only develop courses, and 2% only develop and manage courses.

For the analysis of the characteristics of each team, they will be considered separately. So hereafter the analysis of each team will be presented in relation to their numerical characteristics concerning the function performed by their members and contractors, and the skills they mobilize to do their work.

### Administrative team of distance learning projects

Regarding the administrative team of distance learning, the tasks performed and the type of their members' links, the institutions reported what is summarized in Table 4.17.

Considering the number of answers not including the functions that were not listed in the former table, for categories of team members and outsourced employees, it is important to note that, from the total number of professionals informed (5,632), 73% are effective and 27% are outsourced.

Considering effective and outsourced professionals, most of them perform the functions of academic service (36%) and support/administrative assistant (26%), in the administrative teams.

From the effective professionals, the function performed by the largest number of them is the support/administrative assistant, followed by academic service, with 21%. From the outsourced professionals, the function performed by the largest number of them is in academic service, with 80%, followed by the function of secretary, with 8%.

The hiring practices of outsourced workers for the administrative teams are presented in Table 4.18.

**Table 4.17** Distribution of the professionals of the administrative team, according to the type of function performed and the type of employment link with the institution

| Function performed | Number of professionals | |
|---|---|---|
| | Effective | Outsourced |
| Secretary | 655 | 117 |
| Academic service | 852 | 1,193 |
| Customer service | 432 | 47 |
| Service to vendors | 158 | 9 |
| Telemarketing | 262 | 42 |
| Call center | 344 | 20 |
| Administrative assistant/support | 1,385 | 63 |

**Table 4.18** Distribution of the outsourced professionals in the administrative team, according to the type of function performed

| Function performed | Number of outsourced professionals | |
|---|---|---|
| | Hired by the institution | Hired by an outsourced company* |
| Secretary | 179 | 143 |
| Academic service | 1,267 | 26 |
| Customer service | 20 | 17 |
| Service to vendors | 15 | 8 |
| Telemarketing | 17 | 2 |
| Call center | 21 | 10 |
| Administrative assistant/support | 120 | 35 |

* Cooperative of services, company hired by the department of human resources or personnel management etc.

The highest number of outsourced professionals in the administrative team, presented in Table 4.18, was hired by the institution (87%), and only 13% were contracted by a third party.

Most employees of the administrative team are female and are between 20 and 40 years old.

The skills required from the team are shown in Table 4.19 and are related to the 169 respondents.

Concerning the skills that the administrative team must mobilize to fulfill their work, Table 4.19 indicates that such skills are most often mobilized with a view to "informing about courses" (13%), followed by "registering and enrolling students" (10%), "certifying the students and issuing certificates" (9%) and "meeting interested clients".

The less indicated skills by institutions were "preparing agreements" (5%) and "performing payments of vendors" (5%).

It can be observed, however, that the distribution of 5% to 13% of the answers to all the skills listed indicated that all seemed important to respondents. However, the major focus was linked to the service of students and interested people, regarding administrative aspects.

According to the respondents, most of the administrative team does not work in partnership with other institutions (55%), attending primarily the institution itself.

**Table 4.19** Skills required of the administrative team by institutions

| Skills mobilized | Number of institutions |
|---|---|
| Informing about courses | 139 |
| Performing telemarketing | 75 |
| Registering and enrolling students | 108 |
| Receiving and controling the payment of students | 68 |
| Hiring professionals for distance learning | 67 |
| Certifying students and issuing certificates | 100 |
| Sending printed and multimedia material | 89 |
| Meeting vendors | 70 |
| Meeting clients/interested people | 96 |
| Preparing vendor agreements | 58 |
| Performing payment of vendors | 59 |
| Registering students' grades | 78 |
| Organizing school documents | 86 |

## Planning and production teams for distance learning projects

The functions performed and the employment link of the planning and production team for distance learning projects are presented in Table 4.10; the data was obtained from 145 respondents, since 36 institutions did not provide information on this subject.

It can be seen, from Table 4.20, that the responding institutions have 4,390 professionals in the planning and production team for distance learning projects, 81% of whom are effective, and 19% outsourced.

It can be also observed in this table that 50% of the planning and production team professionals play the role of content experts, 87% of whom are effective, and 13% are outsourced. Professionals who play the role of planners or pedagogical analysts correspond to 8% of the total, 81% of whom are effective, and 19% are outsourced. The function of education designer is carried out by 7% of the employees, 70% of whom are effective, and 30% outsourced. The role of

**Table 4.20** Distribution of the professionals of the planning and production team, according to the type of function performed and the type of employment link with the institution

| Planning and production team for projects | Number of professionals | |
|---|---|---|
| Function performed | Effective | Outsourced |
| Planner or pedagogical analyst | 273 | 64 |
| Experts in content/producers of content | 1,917 | 279 |
| Educational/instructional designer | 214 | 91 |
| Production coordinator | 111 | 32 |
| Illustrator | 82 | 45 |
| Desktop publisher | 117 | 60 |
| Reviewer | 145 | 75 |
| Web programmer | 117 | 44 |
| Web designer | 189 | 58 |
| Game designer | 32 | 2 |
| Audio/video/video class and audiovisual producer | 146 | 39 |
| Manager or administrator of VLE | 156 | 33 |
| Writer | 64 | 5 |

* Virtual Learning Environment

web designer is performed by 6% of the employees, 76% of whom are effective.

The function that has fewer employees is game designer, corresponding to less than 1% of the total, which means 94% of whom are effective.

Regarding the hiring of outsourced employees for the planning and production team, 122 institutions gave no information, which means that 67% of the total of respondents did not report on the number of outsourced professionals and their hiring practices. The information from 59 responding institutions related to the links of their production professionals is shown in Table 4.21.

From the hired professionals (1,905) in the planning and production team, Table 4.21 indicates that 80% were hired by the institution, and 20% by a third party. Professionals who play the role of content experts were those who had the greatest rate of hiring, with 61% of the total, 90% of whom were hired by the institution itself and the rest by a third party.

Professionals who perform the role of audio/video/video class/audiovisual producers constitute the largest number of hired personnel by outsourced companies (51% of the total), as well as production coordinators (50%). Other professionals were hired mostly by the institution itself.

**Table 4.21** Distribution of outsourced professionals of the planning and production team, according to the type of function performed

| Planning and production team for projects<br>Function performed | Number of outsourced professionals | |
|---|---|---|
| | Hired by the institution | Hired by an outsourced company |
| Planner or pedagogical analyst | 82 | 37 |
| Experts in content/producers of content | 1,034 | 120 |
| Educational/instructional designer | 70 | 38 |
| Production coordinator | 21 | 21 |
| Illustrator | 36 | 13 |
| Desktop publisher | 44 | 32 |
| Reviewer | 79 | 21 |
| Web programmer | 34 | 18 |
| Web designer | 65 | 19 |
| Game designer | 9 | 4 |
| Audio/video/video class and audiovisual producer | 27 | 29 |
| Manager or administrator of VLE | 20 | 17 |
| Writer | 12 | 3 |

Most professionals of the planning team are between 31 and 40 years old and are female.

The skills required of professionals from the planning team are presented in the following table.

Table 4.22 shows that most institutions chose almost all the skills listed for the planning team as those required from professionals, except for the one referring to "setting the course methodology". This means that the methodology is already set by the institutions and that the professionals in the planning and production team should only apply it to the courses that will be developed.

Planning the pedagogical development of courses and their validation are the skills most frequently mentioned by institutions for this team. Performing the instructional design of the course, despite having been chosen by a significant number of respondents, was the second less voted skill.

From the responding institutions, 51% reported that professionals of planning teams *do not* develop works in partnership with other institutions. From those who have planning teams that develop partnerships, 72% do not hire services for the development of courses, and 61% *do not* perform follow-up of the companies' work.

**Table 4.22** Skills required of the planning team by institutions

| Skills mobilized | Number of institutions |
|---|---|
| Performing the pedagogical planning of courses | 135 |
| Performing the instructional design of courses | 103 |
| Defining skills that shall be approached in courses | 114 |
| Analyzing the demand of interested people | 128 |
| Planning the evaluation of courses | 126 |
| Planning the validation of courses | 132 |
| Following up the production of courses | 116 |
| Defining and developing the methodology of courses | 3 |

The frequency of answers from responding institutions regarding the skills required from the production team can be observed in the following table.

In respect to the skills listed for the production team, it is observed, in Table 4.23, that answers are focused on four skills: producing the educational resources (22%), updating distance learning courses (20%), training teachers, tutors and facilitators/mediators for courses (16%), and adapting the courses to customers' needs.

In most institutions, professionals of the production team do not develop partnerships (57%), do not hire services concerning course development (71%), and do not follow up the service of hired teams (67%).

A very important information is that the majority of the production team is formed by women who are between 20 and 30 years old.

**Table 4.23** Skills required of the production team by institutions

| Skills mobilized | Number of institutions |
|---|---|
| Producing the educational resources | 137 |
| Recommending suppliers for the production of educational resources | 57 |
| Preparing descriptive memoranda for the hiring of distance learning services | 46 |
| Training teachers, tutors and facilitators/mediators for courses | 100 |
| Updating distance learning courses | 120 |
| Presenting the courses produced for clients | 67 |
| Adapting the courses to customers' needs | 89 |

## Implementation team

It is noteworthy that 138 institutions responded/provided data on the function performed by the implementation team professionals of distance learning courses and respective employment links, as shown in Table 4.24.

The total number of employees reported for the implementation teams of the courses was 23,878, as shown in Table 4.24, 77% of whom are effective and 23% are outsourced.

The tutor function is the one which has the largest number of professionals, representing 41% of the total, 69% of whom correspond to effective professionals, and 31% to outsourced professionals. The function of teacher corresponds to 23% of the total of employees, 87% of whom are effective and 13% are outsourced. Educators who teach at the remote student support site correspond to 12% of the total of employees, 88% of whom are effective and only 12% are outsourced. The scholarship tutor function represents 15% of the total of employees, and only 30% of them are outsourced.

The hiring practices of outsourced workers are presented in Table 4.25, which summarizes the information. It is important

to note that only 44 of the responding institutions (24%) provided information on this subject.

From Table 4.25, it can be seen that, from the outsourced professionals who have implementation functions, 50.5% were hired by the institution, and 49.6% by outsourced companies. From the total hiring for several implementation functions, the largest number concerned tutors (52%), 65% of whom were employed by outsourced companies.

Regarding the hiring of tutors and teachers, the majority of institutions (68%) reported that they comply with specific legislation that regulates the type of distance learning agreement.

In relation to questions on course content, 40% responded that the direct service to students is performed by an intern or undergraduate or graduate student who answers some of the questions and forwards others to the teacher of the course or subject. In 26% of the cases, the answers are given by content experts that may or may not be teachers responsible for study materials. In 20% of the cases, the answers are given by an educator (mediator, facilitator, monitor) that forwards the questions to the subject professional. Only 1% perform electronic service with a standard answer system for the most frequently asked questions.

Regarding the number of students served in the course or subject, 24% of the responses were from 36 to 50 students per teacher/professor, 23% from 25 to 35 students, and 10% from 71 to 100 students.

**Table 4.24** Distribution of the professionals of the implementation team, according to the type of function performed and the type of employment link with the institution

| Implementation team<br>Function performed | Number of professionals | |
|---|---|---|
| | Effective | Outsourced |
| Course coordinator | 731 | 146 |
| Tutorship coordinator | 239 | 50 |
| Coordination assistant | 237 | 14 |
| Teaching assistant | 248 | 15 |
| Professor | 4,704 | 708 |
| Tutor | 6,727 | 3,075 |
| Scholarship tutor of UAB | 2,442 | 1,043 |
| Educator/councilor/animator who works at the remote student support site | 2,813 | 62 |
| Intern | 155 | 469 |

**Table 4.25** Distribution of the outsourced professionals of the implementation team, according to the type of function performed

| Implementation team<br>Function performed | Number of outsourced professionals | |
|---|---|---|
| | Hired by the institution | Hired by an outsourced company |
| Course coordinator | 145 | 58 |
| Tutorship coordinator | 15 | 27 |
| Coordination assistant | 114 | 9 |
| Teaching assistant | 11 | 13 |
| Professor | 688 | 183 |
| Tutor | 1,179 | 2,204 |
| Scholarship tutor of UAB | 920 | 343 |
| Animator who works at the remote student support site | 127 | 18 |
| Intern | 99 | 392 |

It is important to report that 26% of the answers focused on a ratio of 151 students per teacher/professor. However, because of a problem in the instrument, there is no reliability in this number. It is not possible to ensure if the indication was made by choice or due to inability to answer the question.

In relation to the on-site service centers, 69 institutions reported that they do not have service centers.

From those who answered that they have on-site service centers, the number per institution ranged from 1 to 469, and the following answers are the most important ones: two institutions reported having more than 400 centers, one of them said it had more than 300 centers, one had more than 200 centers, and another had more than 100 centers. From those who have less than 100 centers, 15 have only one center, 17 have from 2 to 5 centers, and eight have between six and ten centers. The total of on-site centers informed by the institutions reached 2,892.

Most institutions that have on-site service centers reported that the presence of students is mandatory only for taking tests.

Information on the skills required by the institutions from implementation teams is presented in Table 4.26.

All the skills listed for professionals who work with the implementation of courses had a significant number of responses from institutions, which gave more than one answer to this question. The skills with the highest number of responses were those relating to: assisting teachers responsible for courses, mastering written communication, meeting students due to problems related to the methodology of the course, interacting with other educators involved in the course, and providing reports of results of several courses.

The skills that had the lowest number of responses were: managing conflicts among students, preparing complementary materials to meet the needs and problems of students, and providing information and reports on the performance of students.

It is also important to observe that most professionals on the implementation team are female and are between 31 and 40 years old.

**Table 4.26** Skills required of the implementation team by institutions

| Skills | Number of institutions |
|---|---|
| Mastering course content | 112 |
| Mastering written communication | 120 |
| Servicing students about issues related to content | 113 |
| Supporting professors responsible for courses | 125 |
| Coordinating courses | 102 |
| Servicing students and sending problems related to content to the responsible teacher/tutor | 111 |
| Servicing students about problems related to course methodology | 114 |
| Following up the performance of the teams of people responsible for courses | 111 |
| Providing reports of results of several courses | 114 |
| Encouraging students to study | 107 |
| Managing conflicts between students | 85 |
| Answering all the questions presented by students | 97 |
| Preparing complementary materials to service the needs and problems of students | 92 |
| Subsidizing the planning and production team, indicating strengths and weaknesses of the courses and giving suggestions for improvement | 108 |
| Mastering LMS and/or features such as chats, forums etc. | 113 |
| Mastering the teaching model of the course and performing the educational function to which it corresponds | 108 |
| Interacting with other educators involved in the course | 114 |
| Providing information and reports on the performance of students | 93 |
| Tracking dropout data and suggesting ways to mitigate them | 99 |

## Technology team

The information presented in Table 4.27 on the employment link and duties performed by the technology team of projects was obtained from 130 institutions, as 51 did not provide information on this subject.

The analysis of Table 4.27 shows that, from 1,174 professionals hired for technology teams in distance learning projects, 81% are effective and 19% are outsourced. The technical support function is carried out by the largest number of professionals, representing 27% of the total; 82% of these professionals are effective and 18% are outsourced. In the second place is the programmer function, which corresponds to 19% of the total, 80% of whom are effective and 20% are outsourced.

The function performed by the lowest number of professionals is web conference technician, which represents 7% of the total, 69% of whom are effective and 31% are outsourced.

Information on the hiring method of outsourced professionals is organized in Table 4.28, and it is important to note that 53 institutions did not answer this question.

In Table 4.28, it can be seen that, in relation to the 375 outsourced professionals indicated by the responding institutions, 57% are employed by the institution and 43% by a third party. From the functions of professionals who were hired by *outsourced companies* more than by the institution itself are the computer and technology coordinator (66%), VLE manager (64%), web conference technician (62%), and hardware responsible (56%)

**Table 4.27** Distribution of the professionals of the technology team, according to the type of function performed and the type of employment link with the institution

| Technological team for distance learning courses<br>Function performed | Number of professionals | |
|---|---|---|
| | Effective | Outsourced |
| Computer and technology coordinator | 110 | 16 |
| VLE manager (LMS) | 113 | 26 |
| Programmers | 174 | 43 |
| Hardware responsible | 115 | 34 |
| System analyst | 117 | 16 |
| Technical support | 267 | 57 |
| Web conference technician | 59 | 27 |

**Table 4.28** Distribution of the outsourced professionals of the technological team, according to the type of function performed

| Technological team for distance learning courses<br>Function performed | Number of outsourced professionals | |
|---|---|---|
| | Hired by the institution | Hired by an outsourced company |
| Computer and technology coordinator | 8 | 16 |
| VLE manager (LMS) | 13 | 23 |
| Programmers | 56 | 27 |
| Hardware responsible | 24 | 31 |
| System analyst | 16 | 12 |
| Technological support | 85 | 35 |
| Web conference technician | 11 | 18 |

Regarding the skills of the technology team, the information is organized in Table 4.29.

It can be seen in Table 4.29 that the answers of the institutions are distributed with little difference of frequency among all the skills listed for professional of technology teams. The most voted skills are: providing technological support to teachers and course coordinators and solving urgent problems like system and VLE failure. The less voted skills are: assessing the availability and speed of the system to avoid failures and slowness in service, and informing the prerequisites of access to the system for the students and coordinators involved.

Regarding professionals of the technology area who develop skills in partnerships with other institutions, 55% responded that they do not take part in partnerships and 45% responded that they take part in partnerships.

In relation to the hiring of company services for course support, 68% of the institutions answered that they do not make this kind of agreement, while 32% answered that they have such an agreement. Regarding the monitoring of services, 53% of the institutions responded that they perform this service and 47% responded that they do not perform it.

It is also important to observe that most of the professionals on the technology team are male and are between 20 and 30 years old.

**Table 4.29** Skills required of the technology team by the institutions

| Skills | Number of answers |
|---|---|
| Providing technological support to teachers and course coordinators | 134 |
| Supplying technological support to course students | 122 |
| Managing VLE | 129 |
| Solving urgent problems like system and VLE failure | 132 |
| Informing the technological limits and possibilities of the system to producers and educators | 124 |
| Assessing the availability and speed of the system to avoid failures and slowness in service | 118 |
| Informing prerequisites of access to the system for students and coordinators involved | 121 |

# 5 Suppliers of products and services and independent teachers

## Independent teachers

Information and communication technologies allow more and more consultants, designers, writers, photographers, publicists and lawyers, among others, to offer their professional services over the Internet, and this is also an opportunity for distance learning. Independent teachers connected to have offered online courses, and they are responsible for the content, methodology and course format of Internet pages.

Regis Tractenberg introduced the concept of independent teacher in 2006, during the *International Congress of the Brazilian Association of Distance Learning* and the *22nd ICDE World Conference* (*International Council for Distance Education*), which occurred in Rio de Janeiro. According to him, like on-site independent teachers, who tutor academic subjects, teach music, languages, or even physical education (personal trainers) in various locations, independent teachers have also developed distance learning courses.

The 2010 Census initiated an exploratory study seeking to find and invite these independent professionals to participate. In 2010, ABED located eight teachers among 90 registered for a grant by professor Tractenberg, who were invited to answer a questionnaire prepared especially for them.

In 2011, 39 teachers answered the questionnaire, but only 28 teachers were considered. From 2012 respondents, only two participated in the 2010 Census.

Eleven respondents were eliminated because the identification of some professionals did not characterize them as independent teachers, once they had clear bonds with institutions. Some of these teachers were contacted, and it was reported that they were employed by educational institutions as autonomous professionals for the development of teaching activities. These professionals were eliminated from this sample because they did not fit the proposed definition, which is not to have a link with an institution and develop independent activities for other institutions.

### Distribution by region and academic education

Table 5.1 shows a data summary regarding the geographical regions where independent teachers whose responses were valid are located.

As seen in Table 5.1, most responding teachers are in the Southeast region, but it is important to note that there was the participation of independent teachers from every region of Brazil.

Table 5.2 shows the configuration of independent teachers, regarding their academic background.

In Table 5.2, it may be noted that a good part of the teachers graduated in pedagogy (25%), in a variety of areas. All the teachers have a degree in higher education and most of them (39%) have master and doctorate degrees.

The survey showed that most of these teachers (92.8%) participate in social networks and only two do not. The most quoted social network was Facebook, with 31%, followed by LinkedIn, with 24%, and Twitter, with 23%. Two

**Table 5.1** Distribution of independent teachers in 2011, according to the geographical region in which they are located

| Region | Number | Percentage |
|---|---|---|
| Midwest | 4 | 14.3 |
| North | 2 | 7.1% |
| Northeast | 4 | 14.3% |
| South | 5 | 17.8% |
| Southeast | 13 | 46.5% |
| **Total** | **28** | **100%** |

**Table 5.2** Distribution of independent teachers in 2011, regarding their academic background

| Academic background | Number |
|---|---|
| Inorganic chemistry | 1 |
| Pedagogy | 7 |
| Law | 2 |
| Business | 2 |
| Engineering | 2 |
| Journalism | 1 |
| Physical education | 1 |
| Master and doctorate in education | 3 |
| Master in engineering | 1 |
| Master in agricultural education | 1 |
| Master in science teaching (chemistry) | 1 |
| Master in public policies planning | 1 |
| Master in information sciences | 1 |
| Master in educational technology | 1 |
| Doctorate in psychoanalysis | 1 |
| Doctoral candidate in education | 1 |
| Bachelor and teaching degree (did not inform in which area) | 1 |
| **Total** | **28** |

teachers quoted other networks, like *sonico, slydeshare, paper.li* and *Ning*.

## Offers of products and services

From the responding teachers, 25% work only with distance learning and 75% also work with on-site education. Moreover, 57% of teachers have 3 to 10 years experience in distance learning, 25% have more than 10 years, and 18% have 1 to 2 years.

Regarding the type of products and services they offer or have offered within distance learning, there is a reasonable range from courses up to games and manuals production. Table 5.3 shows this range.

It is important to note, in Table 5.3, that except for the on-site courses, the absolute majority of distance learning courses (70%) in which these teachers work are transmitted over the Internet. Assuming that the distance learning from half of the blended courses is usually done through the Internet, the incidence of this type of activity is more significant, and it may reach almost 90% of the total.

**Table 5.3** Types of products and services offered by independent teachers

| Products and services offered | Number |
|---|---|
| On-site courses | 66 |
| Distance learning courses on the Internet | 197 |
| Distance learning courses with printed material | 29 |
| Blended courses (half distance learning and half on-site) | 24 |
| Content production (books, magazine articles etc.) | 62 |
| Learning objects (animations, videos etc.) | 72 |
| Others: educational games for mobile devices; one intern manual; eight lectures | 30 |

**Table 5.4** Distribution of courses offered by independent teachers according to knowledge area, in 2011

| Knowledge areas | Number of courses (N = 230) |
|---|---|
| Human sciences – education | 127 |
| Human sciences – others | 10 |
| Linguistics, literature and arts | 5 |
| Social sciences – law | 11 |
| Social sciences – business/management | 20 |
| Social sciences – accounting | 2 |
| Social sciences – business | 3 |
| Social sciences – communication | 11 |
| Social sciences – others | 2 |
| Engineering | – |
| Computer sciences | 3 |
| Mathematical sciences – mathematics | 1 |
| Biological sciences | 9 |
| Agricultural sciences | – |
| Health sciences – medicine | 1 |
| Health sciences – nursing | – |
| Health sciences – others | 2 |
| Others: Moodle | 13 |
| Physical education | 10 |

## Courses

The knowledge areas of courses quoted by independent teachers are listed in Table 5.4.

It is important to note that, from the 250 distance learning courses in which independent teachers worked, 230 had their knowledge area identified, as Table 5.4 shows.

It is also observed that more than 56% of the distance learning courses belong to the pedagogical area and 23% are from the social sciences area. From the latter, 40% are from business/management. None of the independent teachers offered courses in the areas of engineering or agricultural sciences.

Table 5.5 presents the distribution of courses in which teachers work, considering their motive. In this case, two of the respondents did not define the purpose of the courses offered.

From courses that had their purposes stated, it is observed in Table 5.5 that the majority (57%) is distributed between upgrade and improvement courses. None of the teachers act as independent professionals in courses whose motive is to prepare for the Enem examination and for the university entrance exam. There is only one course whose objective is the preparation for official examinations.

**Table 5.5** Distribution of courses offered by independent teachers, according to their purpose, in 2011

| Course purposes | Number of courses (N = 198) |
|---|---|
| Professional initiation | 28 |
| Operational training | 10 |
| Training in social/behavioral skills | 16 |
| Update | 57 |
| Improvement | 56 |
| University extensions (courses) | 25 |
| Preparation for Enem/entrance examination/etc. | - |
| Leveling in mathematics | 2 |
| Preparation for scientific production | 1 |
| Civil service examination | 1 |
| Undergraduation | 1 |
| Graduation | 1 |

**Table 5.6** Distribution of courses offered by independent teachers, according to workload, in 2011

| Workload of courses offered | Up to 25% | From 26% to 50% | From 51% to 70% | From 71% to 99% | 100% | Number (N = 40) |
|---|---|---|---|---|---|---|
| Less than 10 hours | – | – | – | – | 2 | 2 |
| 11-20 hours | 1 | 2 | – | – | – | 3 |
| 21-40 hours | 3 | 2 | 2 | – | 1 | 8 |
| 41-60 hours | 1 | 1 | 3 | – | – | 5 |
| 61-100 hours | – | 3 | – | – | 1 | 4 |
| 101-220 hours | 2 | – | – | 1 | 3 | 6 |
| 221-360 hours | – | 1 | 2 | – | – | 3 |
| More than 360 hours | 1 | 1 | – | – | 2 | 4 |

Relating to workload, three participants did not respond to this subject, and Table 5.6 summarizes how respondents organize the duration of their courses.

As shown in Table 5.6, it can be observed that only 6% of the answers indicate courses with less than 10 hours, called "rapid learning," and they are in the range of 100% of the courses, which may indicate a specialization in this type of course. The largest number of answers indicates that 22% develop courses that last from 21 to 40 hours. Furthermore, 17% of the answers concentrate in courses that last from 40 to 60 hours and from 101 to 120 hours. From all the answers, 11% focus equally on courses that last from 61 to 100 hours and on courses that last more than 360 hours.

If one takes into account the highest frequencies of answers (67%), it can be stated that independent teachers develop most courses that last among 21 and 220 hours.

## Students

Regarding the number of students served by teachers, the data obtained is presented in Table 5.7.

For the 250 courses designed by the 28 independent teachers, we have a total of 11,209 students, as shown in Table 5.7.

From the number mentioned by the teachers, the dropout calculation reaches a rate of 13.7%, which means a highly positive aspect for the distance learning courses developed by independent teachers. But if the calculation is made between graduates and students enrolled, the rate is higher than 40%, which can be considered as very high. However, this number is not reliable, since it is not known whether this difference refers to courses that were not finished. It is more prudent to consider the results as provisional, which requires, therefore, a confirmation and suggests a more detailed study about it before reaching a definite conclusion.

**Table 5.7** Distribution of the number of students served by teachers, according to the situation in which they are in the courses offered

| Situation of students in courses | Number |
|---|---|
| Enrolled | 11,209 |
| Graduated | 6,492 |
| Dropout | 1,541 |

We emphasize that one of the respondents did not provide the number of enrollments, and two respondents did not provide the number of graduates and dropouts. Also, one of the participants indicated that there was no dropout, and another presented a number of graduates higher than the number of enrollments.

In 2010, the number of students reported by eight independent responding teachers was 1,100, corresponding to a dropout rate of 16.8%.

Regarding the causes of dropout from the courses, the situation indicated by the teachers is shown in Table 5.8.

For the analysis of the dropout causes, the responses presented by 57 respondents were considered, as shown in Table 5.8, from which eliminated two blank answers and three that indicated no information.

In Table 5.8, it can be seen that the main cause of dropout corresponds to lack of time (33%) by students, followed by work trips and other professional activities (33%). Failure to adapt to the methodology draws attention, with 23%. In 2010, information from independent teachers also indicated lack of time, failure to adapt to the methodology and professional activities as the main causes of dropout. It is noted that this trend remains in the current survey.

Concerning these reasons, we know that distance learning competes with the life of course participants. The time available and the responsibilities at work, for example, are factors involved on their performance at course activities. Adapting to the methodology is another factor that deserves attention, and it is associated with the previous ones because it is necessary to make time to study.

**Table 5.8** Dropout causes in courses taught by independent teachers

| Causes | Number | Percentage |
|---|---|---|
| Lack of time | 19 | 33% |
| Work trips | 6 | 10% |
| No longer works for the company | 1 | 2% |
| Did not adapt to technology | 13 | 23% |
| Other activities at work | 12 | 21% |
| Hindrances created by the boss | 2 | 3% |
| On-site courses in the region | 1 | 2% |
| Lack of knowledge about course dynamics | 1 | 2% |
| Difficulties with the Internet | 1 | 2% |
| Lack of responsibility of students | 1 | 2% |
| **Total** | **57** | **100%** |

Teachers also quoted, regarding their experience, the presence of on-site courses in the region, which may indicate a lack of credibility in distance learning or difficulties associated with methodology or course dynamics, as indicated.

In relation to the service of students with special needs, Table 5.9 summarizes the teachers' answers.

It is important to note that the tools servicing of students with disabilities, mentioned by seven teachers, were:

- Use of environments and technologies accessible to students with low visual deficiency.
- Use of videos with material in Libras (Brazilian sign language) for students with a hearing disability.
- Improvement classes for students with any problems.
- Use of phone and email for contacting students.

Table 5.9 shows that most teachers (43%) expect to work with students with special needs. Moreover, 25% said they have already done it, which indicates a positive attitude of 68% of the respondents for inclusion of students with disabilities in distance learning courses.

### *Infrastructure of courses and communication with students*

Regarding the infrastructure used for course development, the result is presented in Table 5.10.

In Table 5.10, it can be observed that most respondents (61%) use free LMS, and only 18% rent this kind of learning management system. This data confirms the 2010 trend, when most of them also indicated using free LMS. One hypothesis for this use is the reduction of costs for course development. One participant, however, reported having developed a simpler LMS that, according to him, should ease the pedagogical and administrative control of courses. Thus, it can be considered that 82% of teachers use LMS, whether it is free, non-formal or even with own production for the development of their courses.

Table 5.11 presents how the communication with students is performed.

**Table 5.9** Service to students with special needs by the independent teachers

| Service to students with special needs | Number of answers | Percentage |
|---|---|---|
| Does not expect | 9 | 32% |
| Expects service | 12 | 43% |
| Already works with this type of student | 7 | 25% |

**Table 5.10** Configuration of LMS in use for courses offered by independent teachers

| LMS use | Number | Percentage |
|---|---|---|
| Uses free AVA (LMS) | 17 | 61% |
| Uses rented AVA (LMS) | 5 | 18% |
| Does not use LMS | 5 | 18% |
| Developed LMS | 1 | 3% |

**Table 5.11** Communication methods with students, used by independent teachers

| Communication | Number | Percentage |
|---|---|---|
| Email | 13 | 42% |
| Own website | 7 | 23% |
| MSN | 1 | 3% |
| Phone | 1 | 3% |
| Others | 9 | 29% |
| **Total** | **31** | **100%** |

As shown in Table 5.11, most respondents (42%) reported that email is the main method to contact students. Using their own website in order to communicate has reached 23% of the answers.

Some respondents that answered *Others* indicated that communication takes place through AVA and quoted some tools, such as forum, chat, mailing list, and email. There were others that informed a combination of AVA tools using Skype or iPhone. And one of the respondents informed the use of audio chats and writing.

Although the asynchronous tool email has been the most mentioned one, other features of interaction have been used by teachers for synchronous communication, like Skype, iPhone, chat, MSN and telephone, which indicates a concern with the use of both communication methods. Although synchronous communication is the most used one, there is a tendency to use several tools for synchronous communication, for real time service.

## Expectations related to distance learning

Regarding the observation of independent teachers about the growing number of courses and students, the result is shown in Table 5.12.

**Table 5.12** Perception of independent teachers, regarding the growth in the number of courses and students, in relation to 2010

| Statement | Number | Percentage N = 48 |
|---|---|---|
| Growth in the number of courses | 16 | 33% |
| Growth in the number of students | 19 | 40% |
| Decrease in the number of courses | 2 | 4% |
| Decrease in the number of students | 4 | 8% |
| There was no change in the number of courses | 6 | 13% |
| There was no change in the number of students | 1 | 2% |

It can be observed, in Table 5.12, that most answers indicate that there was an increase in the number of students (40%) and in the number of courses (33%). And, if for 13% there was no change in the number of courses, only 2% believe that this change did not happen concerning the number of students, and 8% believe there was a decrease in the number of students served.

Answers indicate that distance learning, for most independent teachers, is growing in relation to 2010, either in the number of students or courses.

### *Obstacles to distance learning*

The obstacles faced by independent teachers in distance learning, in 2011, are presented in Table 5.13.

As shown in Table 5.13, most respondents indicated as the main obstacles technical and IT support for the participants (20%), as well as dropping out of students (19%), which were also mentioned as the main item in 2010. Technical and IT support to participants is much more difficult with the use of free AVA, and, as most of them use this type of LMS, they probably have to solve problems by themselves. It is known that,

**Table 5.13** Obstacles faced by teachers in the development and implementation of distance learning courses

| Obstacles(*) | Frequency of answers | Percentage of answers (N = 64) |
|---|---|---|
| Production cost of distance learning courses | 9 | 14% |
| Competition with other institutions | 10 | 15% |
| Technical and IT support for the participants | 13 | 20% |
| Dropout of participants | 12 | 19% |
| Assessment of courses | – | – |
| Resistance of students to course(s) | 7 | 11% |
| Legal obstacles | 2 | 3% |
| Adequacy of courses for students with special teaching needs (to meet the law) | 3 | 5% |
| Integration of ICT to the courses | 5 | 8% |
| Others | 3 | 5% |

* Teachers could indicate more than one obstacle faced.

if such problems are not solved, dropout eventually happens. Thus, the lack of support may be one of the existing reasons for the students dropout. Another reason, also quoted as an obstacle, is the resistance of students to the distance learning modality (11%), since students have pointed out before that they have a preference for on-site courses.

The competition of other institutions was also mentioned (15%). For independent teachers, it is not always easy to compete with institutions in the market; it is necessary to innovate, so they can compete with them successfully. In this case, the production cost of courses also appears as an obstacle to be faced, and it was cited by 14% of the teachers. One participant pointed out the cost (website hosting and remuneration) as one of those obstacles.

Adequacy of courses for the service of students with disabilities, provided by legislation, was also mentioned by 5% of the respondents. Although they are sensitive to this issue and seek this service, as they answered in the previous question, they still consider this subject as an obstacle, possibly associated with the courses production cost.

In *Others*, some teachers also indicated as an obstacle the refusal of courses by MEC, the difficulty to find tutors, and the cost of expenses, such as website maintenance and remuneration for services rendered.

Regarding to the independent teachers expectation for the maintenance or not of these obstacles for the current year, Table 5.14 shows its configuration.

In Table 5.14, it can be seen that the students dropout (23%) and IT technical support (20%) are still hovering as major obstacles in the independent teachers' concerns for 2012. The production costs of the courses and competition with other institutions (14%) are the other obstacles that are still present.

One concern that was not presented in 2011 and which arises in 2012 is regarding the assessment, which is a concern for 3% of the respondents.

The independent teachers also quoted as problems to face the population accessibility to more sophisticated media resources and the cost of expenses (website hosting and remuneration) arising from the decision to offer distance learning courses.

Comparing the two tables, it can observed that independent teachers foresee, for 2012, bigger obstacles than those faced in 2011 in order to develop distance learning courses.

### *General comments*

The general comments of the independent responding teachers were positive regarding the research, because they felt recognized and addressed by ABED. One respondent made a request for representation in the Association and demanded lower prices for independent teachers and consultants in events.

## Suppliers of distance learning products and services

The total number of active Internet users in Brazil reached 43.2 million in March 2011, an increase of 4.4% compared to the previous month, according to research by Ibope (Brazilian Institute of Public Opinion and Statistics), published in May 2012. Regarding the 37.9 million active users, according to research done in March 2010, the increase was of 13.9%. Ibope considered as active users people at the ages of two years or older who use a computer with Internet access, at least once a month.

**Table 5.14** Expectations of independent teachers, regarding obstacles to be faced in 2012

| Obstacles in 2012 for distance learning courses | Number of answers | Percentage regarding the number of answers (N = 66) |
|---|---|---|
| Production cost of distance learning courses | 9 | 14% |
| Competition with other institutions | 9 | 14% |
| Technical and IT support for the participants | 13 | 20% |
| Dropout of participants | 15 | 23% |
| Assessment of courses | 2 | 3% |
| Resistance of students to course(s) | 5 | 7% |
| Legal obstacles | 2 | 3% |
| Adequacy of courses for students with special teaching needs (to meet the law) | 4 | 6% |
| Integration of ICT to the courses | 5 | 7% |
| Others | 2 | 3% |

The number of people who use the Internet in Brazil is less than 42% of the population, and the federal government wants 70% using it until 2015, through the Multiannual Plan (PPA 2012-2015). Another objective of the PPA 2012-2015 is to expand the use of the Internet to 70% of the population in class C and 40% of the population in classes D and E. Currently, 24% of class C people use the Internet, but that number drops to only 3% in classes D and E. Moreover, the government intends to expand the supply of fixed broadband to 10 Mbps and mobile in 4G network to all cities that will host the World Cup in 2014.[1]

Cetic (Center for Studies on Information Technology and Communication), an agency of the Internet Management Committee in Brazil, has investigated the use of Internet for educational purposes among users in the whole country, more specifically in online courses, and they have identified that 11% of Internet users access the web with this purpose.[2]

The data confirms the increase of demand for distance learning courses and also the search for quality courses, which requires greater expertise to produce services in distance learning which interest potential students in their formation and/or training. Students of distance learning courses are becoming more demanding because most of them already have experience in accessing websites, blogs, and social networks, where interactivity is an important factor. The organization of information in the courses needs creativity in the delivery and challenge proposals, so that learning can take place.

The increasing number of users and the higher quality requirements of products and services in the distance learning area confirm the presence of a market niche to be served by supplying companies/institutions, which may be public or private.

The 2011 distance learning Census defined as suppliers of products and services companies/institutions that offer products and services for the development and implementation of distance learning courses to other institutions or companies. Products may vary from complete courses in different media, to part of courses such as art and video programming, animations, learning objects, among others. Service includes content development to location for LMS and servers for the implementation of courses. The institutions/companies have classified themselves as suppliers and have answered a specific questionnaire.

In the 2010 Census, 31 institutions were presented as supplying institutions, and from this amount, ten acted only as suppliers.

In 2011, 27 institutions presented themselves as suppliers. From the total of respondents, one was eliminated because its answers to the questionnaire indicated that it was a supplier only for itself. Hence, from the total of 26 institutions, 10 (38%) of which were also respondents in 2010.

1 Available at: <http://www.artigonal.com/desigualdades-sociais-artigos/governo-quer-70-dos-brasileiros-usando-internet-nos-proximos-4--anos-5190989.html>.

2 Available at: <http://NIC.br>. Access in: sep.-nov. 2010.

The distribution of supplying institutions, by regions in Brazil, is related in Table 5.15.

**Table 5.15** Distribution of suppliers of distance learning products and services in 2011, according to the geographical region in which they are located

| Region | Number | Percentage |
|---|---|---|
| North | 1 | 4% |
| South | 3 | 12% |
| Southeast | 17 | 65% |
| Midwest | 4 | 15% |
| Northeast | 1 | 4% |
| **Total** | **26** | **100%** |

Table 5.15 shows that in 2011 the majority of responding institutions that are suppliers of distance learning products and services are located in the Southeast region (65%). In 2010, all the responding companies were located in Southeast (80%) and in the South (20%) regions. In 2011, supplying companies in all Brazil's regions were presented as respondents providing a vast representation to the data acquired.

Regarding the institution's operation, 42% placed themselves as service providers and specified their performance in the following areas:

- Technology and pedagogical products
- Education, desktop publishing and development of systems
- Education, formation and training
- Distance learning material production and training of professionals
- Training and system advising
- Corporate learning
- Marketing and event agency
- Team productivity
- Corporate services, retail, actions for teaching institutions, governments and social actions
- Production of content for distance learning institutions
- Corporate educational technology
- Offer of institutions in the distance learning scope

From the total of respondents, 38% presented themselves as educational institutions, and from this amount, one was developing only courses for teens and adults.

Regarding the participation of institutions in social networks, the majority use Facebook (73%) and Twitter (54%), and only 19% use the company's own network. Only two institutions did not provide information on the use of social networks. Besides, other social networks in which companies

participate, such as Foursquare, YouTube, G+ and others. The answers indicate an effective participation of companies in social networks.

From 26 respondents, 57% offer distance learning products and services, without implementing courses, and 43% offer products and services for distance learning and for on-site courses.

## Characteristics of service of supplying institutions

In relation to the number and size of companies that are served by distance learning service suppliers, Table 5.16 presents a general picture.

**Table 5.16** Number of clients from suppliers participating in the 2011 Brazil distance learning Census, according to the size of the company

| Size | Number | Percentage |
|---|---|---|
| Micro company | 54 | 3% |
| Small company | 107 | 6% |
| Medium company | 105 | 6% |
| Large company | 1,547 | 85% |
| **Total** | **1,813** | **100%** |

In Table 5.16, it can be verified that clients served by institutions that supply distance learning products and services are mostly large companies, representing 85% of the total. Only one of the respondents reported that they serve 1,000 large companies. Even disregarding this data, most of them keep servicing large companies. It can be seen that there are 1,813 clients served by the 22 responding companies, since four did not answer this question, which seems to be a fairly large number.

Table 5.17 presents results related to the comparison of the percentage of the number of clients served in 2010 and 2011.

Table 5.17 shows that the majority of responses have occurred in the range of 10% to 20%, indicating an increase in service in 2011, compared to 2010. Most of them expanded their service in 2011, compared to 2010, and only 20% showed an increase of less than 10%.

Regarding the products and services offered by the supplying institutions, the results are presented in Table 5.18.

Table 5.18 indicates that, from the answers given, 44% relate to less than 10 products of any sort in the year. For the set of answers related to less than 10 products and services, the highest concentration was on-site courses (14%), training of tutors (11.5%), content production, productions with augmented reality (8%) and game productions for mobile learning and tablets (7%).

The highest number of answers, regardless of the number produced, was related to the following products: complete distance learning courses (10%), production of content and on-site courses (9%), and videos (8%). Interestingly, content production has been identified as a strong point for most companies, and it was also one of the most produced items.

Only 15% of the answers refer to more than 100 products in the year, and it can be seen that animation, art and programming, and production of slides correspond to 21%, videos to 16%, and learning objects to 13%.

If we compare this data with the 2010 Census, it can be noticed that most of the products acquired concerned distance learning courses, but there was an increase in this percentage: in 2010, it was 12% and in 2011 it was 10%, regarding the set of answers. Content production in 2010 and 2011 was the second most frequent services: in 2010, it corresponded to 10% and in 2011 it corresponded to 9%. Video production, which corresponded to 8% in 2010, maintained the same percentage.

**Table 5.17** Comparison of clients served by suppliers of distance learning products and services in the 2010-2011 period

| Percentage of clients served in 2011, in relation to 2010 | Number of suppliers | Percentage (N = 25) |
|---|---|---|
| Less than 10% | 5 | 20% |
| From 10% to 20% | 9 | 36% |
| From 21% to 40% | 7 | 28% |
| From 41% to 60% | 3 | 12% |
| From 61% to 80% | 1 | 4% |
| More than 81% | 0 | – |

**Table 5.18** Number of projects developed by suppliers of distance learning products and services in 2011

| Products/services | Number of projects developed in 2011 | | | | | |
|---|---|---|---|---|---|---|
| | Less than 10 | From 10 to 25 | From 26 to 50 | From 51 to 75 | From 76 to 100 | More than 100 |
| Complete distance learning courses | 8 | 6 | 4 | 3 | 1 | 3 |
| Content production | 9 | 9 | 1 | 1 | 1 | 2 |
| On-site courses | 16 | 5 | – | – | – | 2 |
| Educational design | 2 | 7 | 2 | 3 | 1 | 4 |
| Animations, art and programming | 1 | 3 | 2 | 2 | – | 8 |
| Simulators | 5 | 4 | 1 | – | – | – |
| Games | 8 | 5 | 2 | – | 1 | – |
| Provider location | 8 | 1 | 1 | – | – | – |
| Development or implementation of LMS | 5 | 6 | 1 | – | 1 | – |
| Learning objects | – | 4 | 3 | – | – | 5 |
| Videos | 5 | 4 | 4 | 2 | – | 6 |
| Slide production | 7 | 1 | 1 | 1 | – | 8 |
| Training of professors for distance learning | 13 | 4 | 2 | – | – | – |
| Productions with augmented reality | 9 | – | – | – | – | – |
| Mobile learning production | 8 | 2 | – | – | – | |
| Productions for tablets | 8 | 2 | – | – | – | – |
| Production of editorial products | 1 | – | – | – | – | – |
| **Total** | **112** | **63** | **24** | **12** | **5** | **38** |

New technology products, such as mobile learning, augmented reality and tablets, with a production lower than 10 items in the year, correspond to 22% of the answers, and when the production of 10 to 25 projects is set, the percentage decreases to 6%. Although production is low, new technologies are being used in production processes at institutions.

Table 5.19 presents products that companies consider as being their three strongest products.

For Table 5.19, the number of respondents considered was 25, because one supplier did not indicate what is considered its three strongest products. It can be noticed that, for suppliers, the product considered the strongest is content production (68%), followed by educational design, and production and adequacy of media (60%). Assessment of learning was the item that had the smallest number of answers (36%), so it was considered the least strong product by the responding group.

In relation to 2010 Census, the strongest product was also content production, which corresponded to 45% in 2010, and to 68% in 2011. Educational design corresponded to 30% in 2010, and increased to 60% in 2011, media production while accounted for 20% in 2010, and increased to 60%. Assessment of learning, in 2010 and 2011, was the product considered the weakest, but increased from 13% to 36%.

**Table 5.19** Products indicated as being the strongest by companies

| Distance learning products | Number of indications as the strongest | Percentage (N = 25) |
|---|---|---|
| Content | 17 | 68% |
| Teaching planning | 14 | 56% |
| Educational design | 15 | 60% |
| Production and adequacy of media | 15 | 60% |
| Evaluation of learning | 9 | 36% |
| Tutorship and technical support | 1 | 4% |

These answers coincide with the offers of products, because the highest number of products from respondents is in complete distance learning courses (25%), which involve, necessarily, pedagogical planning, educational design and content production (23%).

## Distance learning products and services

### *Service knowledge areas*

The analysis of the knowledge areas was carried out not only by tab, but by the consistency of answers of each respondent on the indicated percentages. Thus, the knowledge areas with the highest number of answers were human sciences: education (41%); social sciences: business/management (38%); and health sciences: nursing (25%). In third place (21%) are both social sciences: law, accounting, business and medicine.

It is important to note that 60% to 100% from 30% of suppliers that serve the education area perform most of the services in this area. Of 33% of suppliers that serve the business/management area, 50% to 100% perform most of the procedures in this area. Of 40% of suppliers in the business/business area, 70% to 80% predominantly serve this area. In medicine, of 20% of the suppliers that serve this area, 80% have only 10% of their services in this area. In the nursing area, no respondent serves this area as the majority of their clients, with service varying at a range lower than 10%.

Thus, it can be observed that there is no specificity of suppliers for services in certain knowledge areas, although there is a trend in most services in certain areas.

Elementary and high school education were also cited as a service area by two respondents (8%), and one of them serves only high school (100%), while the other performs 40% of its services in elementary and high school.

The area that did not receive any mention was agricultural sciences.

Thus, it can be noticed that, although education is still the main service area for suppliers of products and services, there is an extension of service areas, starting with business/management areas, and followed by business and accounting and health/medicine and nursing areas.

Service to elementary and high school education, for products and services, deserves a more thorough investigation, such as the knowledge areas that constitute the work focus, for example, Mathematics, History, and Portuguese, among others.

In the 2010 Census, the most cited issue was sales (16%), followed by education and citizenship (13%), and service excellence, business culture and technology (10%). It can be noted that answers change in 2011 indicates that the spectrum of content has been expanded and developed.

### *Work teams*

Regarding the supplier's work teams of distance learning products and service, Table 5.20 presents its configuration.

Only one of the participants did not report on its team configuration. Table 5.20 refers to 25 suppliers of products and services, and it can be observed that most institutions work with centralized teams (64%), and only 16% work with external teams for one or more project processes.

In the 2010 Census, it was also noted that the largest number of institutions had centralized teams, which indicates that the same management method remains for work centralization.

Within the picture presented in Table 5.20, it is possible to say that most supplying institutions have sufficient work and confidence in their future, because they work with their own teams, constituted by professionals with an employment link.

In relation to investments made by institutions for employees' training, Table 5.21 provides the information obtained by this Census, noting that two institutions reported that more than one alternative has been considered. Thus, we chose to work with the number of answers corresponding to 28.

**Table 5.20** Configuration of work teams of suppliers of distance learning products and services

| Work teams | Number | Percentage N = 25 |
|---|---|---|
| Centralized team (the same for all projects) | 16 | 64 |
| Different teams for different projects | 2 | 8 |
| Different teams for several projects (planning, production, etc.) | 3 | 12 |
| External teams that perform one or more project processes | 4 | 16 |

Table 5.21 shows that most companies train their effective employees (46%), and 29% do not train their employees. Training of fellows and interns was more quoted (18%) than training to outsourced employees (7%).

Regarding the academic profile of teams, presented in Table 5.22, it is important to note that those who answered the questionnaire of institutions did not provide information on it. Thus, we had five blank questionnaires in this subject and three companies said they did not have available information. Thus, for the composition of Table 5.22, the number of respondents corresponded to 18.

**Table 5.21** Configuration of the type of training of its employees by suppliers of the distance learning products and services

| Type of link and training in distance learning | Number | Percentage (N = 28) |
|---|---|---|
| Does not offer training in distance learning | 8 | 29% |
| Trains outsourced employees | 2 | 7% |
| Trains effective employees | 13 | 46% |
| Trains fellows and interns | 5 | 18% |
| **Total** | **28** | **100%** |

The total number of respondents (18) considered for the composition of Table 5.22 indicated 741 employees distributed among teams of administration (31%), planning (15%), production (39%), implementation (10%) and technical support (5%).

The highest number of employees is distributed among teams of administration (31%) and production (39%), and the lowest number of employees is in the technical support teams (5%).

In relation to the academic profile, we also have 2.6% of professionals with a doctorate. Professionals with a master's degree account for 4% of the employees, 1.5% of whom with research on distance learning. Of 17.6% of the employees with a specialization, 6.5% are directed to the distance learning area, and 12% to another area. It can be seen that over 24% of the employees have a doctorate, master's degree or specialization in their academic training, around 7.5% of whom in the distance learning area.

Moreover, from 49% of employees, 33% are aimed at education, and 67% at another area.

In order to conclude the analysis of the whole team, it is observed that, in Table 5.22, 15% of the employees have a high school education, 11% attended technical education and only 1% have a non-academic certification in the distance learning area.

Considering only the *administrative team*, the following academic profile can be observed: most of them have high school and technical education (43%), 3% have a non-academic certification in the distance learning area, 28% have an undergraduation, 3% whom with research on education and 26% in other areas. With a specialization we have 20%, and 2% of them had a final paper on distance learning. Having master's degrees are 2%, less than half of whom with research on distance learning and 2% with a doctorate in another area.

Considering only the *planning team*, we have the following academic profile: 36% have an undergraduation, 17% of them in education and 19% in another area; 4% have a doctorate with distance learning researches; 6% have a master's degree, less than half of whom with research on distance learning. With specialization, we have 24%, 7% of whom in the distance learning area and 17% in another area. In this team, there are still 28% with a high school education.

**Table 5.22** Academic profiles found in companies that supply distance learning products and services

| Academic profile | | Number of professionals | | | | |
|---|---|---|---|---|---|---|
| | | Administrative team | Planning team | Production team | Implementation team | Technical support team |
| Doctorate | With research on distance learning | – | – | 1 | – | – |
| | Without research of distance learning | 5 | 5 | 7 | 1 | 1 |
| Master's degree | With research of distance learning | 1 | 3 | 7 | – | – |
| | Without research of distance learning | 4 | 4 | 8 | 2 | 1 |
| Specialization | With a final paper on distance learning | 4 | 8 | 27 | 3 | 2 |
| | With a final paper in another area | 43 | 19 | 16 | 7 | 2 |
| Undergraduation | In education | 6 | 19 | 62 | 10 | 7 |
| | In another area | 60 | 21 | 119 | 39 | 19 |
| Education | High school | 22 | 31 | 44 | 11 | 3 |
| | Technical education | 79 | – | – | – | – |
| Non-academic certification in the distance learning area | | 8 | – | – | – | – |
| Total | | 232 | 110 | 289 | 73 | 35 |

Considering only the *production team*, we have the following academic profile: most (62%) have an undergraduation, 41% of whom in another area and 17% in education; 20% have a master's degree or specialization; from the masters, we have approximately half with distance learning researches, while specialization corresponds to 9% in the distance learning area and 5% in other areas. There are 3% of doctorate, mostly with research in another area, and there are 15% with a high school education.

Considering only the *implementation team*, we have the following academic profile: 67% have a undergraduation, 14% of them in education and 53% in another area. We have 1% of doctorate, 3% of masters, and 14% with a specialization, mostly with research in other areas. There are 15% of professionals with a high school education.

Considering only the *technical support team*, we have: 74% with an undergraduation, 54% of them in another area and 23% in education. There are 3% of masters, 3% of doctorate in other areas and 11% with a specialization, half of whom have a final paper on distance learning. There are 8.5% with a high school education.

It can be stated that most team members have higher education degrees: 53% in administration, 72% in planning, 85% in production and implementation, and 91% in technical support, regardless of the training area.

In relation to training that includes doctorate, master's degree or specialization, regardless of the area, we have 35% in planning teams, 24% in administrative teams, 22% in production teams, 18% in implementation teams, and 17% in technical support teams.

In relation to those who have high school and technical education, the highest rate is in the administrative teams (43%), and 28% of them are in planning teams, 15% are in production and implementation team, and 8.5% are in the technical support team.

Regarding the selection of employees, five institutions (19%) reported no available data about it, and 7 (27%) left the question blank, possibly because most of them had reported such data in the institution questionnaire. Thus, we have 63% of respondents that indicated they select employees by free selection (through resume and interview), and 37% through recommendation of other employees.

Regarding the salary ranges of distance learning professionals, two supplier institutions indicated having no information available, seven left the question blank, possibly for the same reasons mentioned in the previous paragraph. Thus, this question had 15 respondents, representing 57% of the total.

In relation to the answers, in the salary range corresponding to less than R$ 1,000.00, there is the lowest number of responses, and the percentage relating to professionals is around 5% to 10% in all teams, except in one company, which indicated 48% of employees of technical support in this salary range.

The highest number of answers, in relation to administrative professionals, was in the range of R$ 1,001.00 to R$ 2,000.00, corresponding to 40% to 100% of professionals receiving this amount. The second most common choice was in the range from R$ 3,001.00 to R$ 4,000.00, whose rate is around 20% to 30% of professionals receiving this amount. In third place was the range from R$ 4,001.00 to R$ 5,000.00, corresponding to 50% to 80% of professionals of most responding companies.

Regarding the planning team, the choices of companies focused almost equally in the range from R$ 2,000.00 to R$ 3,000.00, varying from 60% to 80%; in the range from R$ 3,001.00 to R$ 4,000.00, the rate was 100%; and in the range of R$ 5,000.00, the rate was also 100%. So we can say that the highest number of companies have employees in the planning area receiving from R$ 3,001.00 to R$ 5,000.00.

Regarding the production team, the highest frequency of answers was from R$ 1,000.00 to R$ 3,000.00, varying from R$ 1,000.00 to R$ 2,000.00 for around 50% to 60% of employees; and in the range from R$ 2,001.00 to R$ 3,000.00, the rate was 40% to 100% of the employees of this team.

In relation to the implementation team, the most chosen salary range was from R$ 2,001.00 to R$ 3,000.00, varying from 40% to 100% of the employees who receive this amount.

Regarding the technical support team, there was the same number of choices for the range from R$ 2,001.00 to R$ 3,000.00, R$ 3,001.00 to R$ 4,000.00 and R$ 4,001.00 to R$ 5,000.00, and the indication of 100% of the employees to receive this amount was roughly equivalent, which indicates that companies are distributed in these ranges for the payment of these professionals, with minor differences in payments to professionals in this team.

The salary range with the highest frequency was from R$ 2,001.00 to R$ 3,000.00 for the majority of employees in all teams, followed by the range from R$ 4,001.00 to $ 5,000.00.

Regarding the average age of professionals working with distance learning, data from 19 respondents (73% of total) was considered, because eight failed to report such data, and two were canceled because of invalidity of the data presented. The highest incidence of answers in all teams was from 21 to 30 years old, with 42%, and from 31 to 40 years old, with 38%.

Regarding the teams average age, the highest frequency of answers for the administrative (43%), planning (52%) and implementation (45%) teams was from 31 to 40 years old. In the production (50%) and technical support (68%) teams, the majority was from 20 to 30 years old. So the production and technology teams have an average age from 20 to 30 years old, and the administrative, planning and implementation teams have an average age from 31 to 40 years old.

Regarding gender, most of the 18 respondents with valid indications selected a range from 41% to 60% (29% of the answers), and more than 81% (29% of the responses) of male professionals. This indicates that the majority of employees are male, regardless of the teams in which they work.

In summary, it can be said that teams of the responding suppliers of distance learning products and service are predominantly male, with an age ranging from 21 to 40 years old, with salaries ranging from R$ 2,000.00 to R$ 3,000.00.

Regarding recruitment, we have the results presented in Table 5.23.

Suppliers who allowed the composition of Table 5.23 amounted to 19. By the data they provided, it is clear that 34% did not engage in any hiring, 28% performed up to 10% of hires, and 33% performed more than 20% of hiring for the teams.

In the 2010 Census, respondents reported that there was a growth forecast for hiring, from 10% to 40%, which was confirmed by what can be observed in the previous data.

The data indicates that the upward trend of the hiring of distance learning professionals identified in the 2009 and 2010 Censuses was maintained.

As for the management teams, 36% of suppliers indicated that they did not engage in any hiring, and 36% indicated performing 10% of hiring in this team.

As for the planning teams, 36% of suppliers did not engage in any hiring, and 36% hired more than 20% of the professionals.

As for the production teams, 25% of the suppliers reported they did not perform any hiring, and 63% have performed more than 20% of the hires.

As for the implementation teams, 42% of suppliers reported they did not perform any hiring, and 33% performed more than 10% of the hires.

As for the technical support, it can be observed that 33% of the suppliers reported they did not perform any hiring, 33% performed up to 10%, and 27% performed more than 20%.

In relation to layoffs, Table 5.24 presents data obtained from 18 suppliers.

In Table 5.24, it can be seen that 51% of answers indicated that there have been layoffs in the teams. For suppliers who conducted layoffs, 34% laid off up to 10% of the employees, 10% laid off between 11% and 20% of the employees, and 4% laid off more than 20% of the employed team.

Regarding the teams, the absence of layoffs corresponded to 28% of the technical team answers, 23% of the administrative team, 20% of the planning team, 17% of the implementation team, and 11% of the production team. These answers indicate that, proportionately, the technical team was the one that had the smallest number of layoffs, compared to other teams.

In the administrative teams, 43% of the answers indicated layoffs up to 10%, and in the production teams, this number achieved 44% of the answers.

The teams that had the highest frequency of layoffs up to 20% were the production (29%) and implementation (29%) ones.

Comparing the number of hires and layoffs, it is possible to verify that 66% of the companies indicated the performance of hires, and 50% no layoffs, which allows us to infer a favorable result for the increase of the number of professionals in distance learning, regardless of the teams they belong to.

**Table 5.23** Distribution of the hiring of professionals by suppliers of distance learning products and services

| Percentage ranges of hiring related to the number of team members | Team | | | | |
|---|---|---|---|---|---|
| | Administrative | Planning | Production | Implementation | Technical support |
| No hiring | 6 | 4 | 4 | 4 | 5 |
| Up to 10% | 6 | 3 | 1 | 4 | 5 |
| From 11% to 20% | – | – | 1 | 1 | 1 |
| More than 20% | 2 | 4 | 10 | 2 | 4 |

**Table 5.24** Distribution of layoffs by suppliers of distance learning products and services

| Percentage ranges of layoffs in relation to the number of team members | Team | | | | |
|---|---|---|---|---|---|
| | Administrative | Planning | Production | Implementation | Technical support |
| No layoffs | 8 | 7 | 4 | 6 | 10 |
| Up to 10% | 6 | 4 | 7 | 3 | 3 |
| From 11% to 20% | – | – | 4 | 2 | 1 |
| More than 20% | – | 1 | 1 | 1 | – |

## Obstacles and profitability

The obstacles faced in 2011 by 21 suppliers of distance learning products and services suppliers are presented in Table 5.25.

According to the data in Table 5.25, the majority of answers indicated as major obstacle to suppliers the cost of technical solutions (23%), followed by the production cost of courses (17%), and IT technical support for clients (14%). None of the respondents indicated time for product delivery to clients as an obstacle. The main obstacles indicated put the cost of production and technology in evidence, suggesting as one of the difficulties the hiring of qualified workforce.

Regarding expectations for 2011, respondents in the 2010 Census indicated as the main obstacle the couses production cost (13%). This expectation was confirmed in the 2011 Census, with 17% of the votes, followed by technical support in IT (13% in 2010), which was confirmed in 2011, with 14%. Therefore, the prediction of obstacles indicated by suppliers of distance learning products and services was confirmed in 2011. A striking difference, however, was the prediction of obstacle of the incorporation of ICT to the courses, indicated by 16% of the respondents in 2010, and that was reduced to 6% in 2011. However, the difficulties concerning the cost of technical solutions reached 23%. The cost of technology solutions can include the incorporation of ICT in the courses.

In relation to profitability in 2011, when compared to the data from 2010, it can be noted that, from the 17 respondents, 59% indicated there was a profit, 35% reported gain maintenance, and 6% indicated there were losses. For those who indicated a profit, the average were 23%. The loss pointed out was 7%.

In relation to growth for 2012, compared to 2011, 18 suppliers submitted data. From these, 72% considered that there will be a profit, 22% considered that there will be maintenance, and 6% considered that losses will occur. For those who hope to gain, in terms of profitability, the average was 29%; and for those who expect the occurrence of loss, a loss of 20% was pointed out.

Based on these answers, it can be inferred that the majority of suppliers of distance learning products and services had an average profitability of 20% in 2011, and have an optimistic outlook for 2012, expecting growth of higher profitability, of 29% on average, although one of the respondents expects a growth of 50%.

**Table 5.25** Obstacles faced by suppliers of distance learning products and services in 2011

| Obstacles faced by suppliers of distance learning products and services in 2011 | Percentage (N = 35 answers)* |
|---|---|
| Course production costs | 17% |
| Technical and IT support for the customers | 14% |
| Lack of trained team to service the customers | 3% |
| Cost of technological solutions | 23% |
| Time required by the customers in the delivery of works | 0 |
| Resistance customers' employees to the distance learning courses | 6% |
| Difficulties in content production | 6% |
| Customization of solutions for several customers | 6% |
| Adequacy of courses for students with special teaching needs (to meet the law) | 8% |
| Integration of ICT to the courses | 6% |
| Hiring of qualified workforce | 8% |
| Reduced team of employees | 3% |

* Respondents could indicate more than one alternative.