eLearning Comparative Study in Six European Countries:

France
Iceland
Italy
Portugal
Spain
United Kingdom

Educação e Cultura
eLearning
ieba
CENTRO DE INICIATIVAS EMPREASARIAIS BEIRA AGUEIRA
Grant Agreement num.: 2003-4730 / 001 - 001 EDU-ELEARN
Slide

This study was developed within the "SLIDE-eLearning et Développement: Initiatives Locales Solides" project, co-financed by the European Commission and the eLearning Initiative, and promoted by a Portuguese organisation with the joined work of a group of partners from France, Iceland, Italy, Spain and United Kingdom.

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European Partnership

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CFPF-Centre de Formation Professionnelle Forestière

Iceland
University of Reykjavik School of Science and Engineering

Italy
CNCA-Coordinamento Nazionale Comunità di Accoglienza

Portugal
IEBA – Centro de Iniciativas Empresariais Beira-Aguieira

Spain
OADL-Organismo Autónomo para el Desarrollo Local de Cáceres

United Kingdom
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Introducing SLIDE

Project's Framework

SLIDE: eLearning et Développement: Initiatives Locales Solides is a project developed by IEBA-Centro de Iniciativas Empresariais Beira Aguieira (Portugal) in partnership with other 6 organisations located in different European countries (Spain, France, Italy, Iceland and United Kingdom). It is a response to a European Commission call for proposals in 2003 about eLearning initiatives. Its purpose is to carry out a peer review, or in other words, an exchange and analysis of good practices and policies. It began in January 2004 and ended in March 2006, lasting approximately 2 years.

SLIDE is a result of work that has been carried out for more than 10 years by NYMPHEA, a European association of organisations for vocational training and local development. A total of 6 of the 7 partners in the project belong to this association. The exception is Iceland, who received a special invitation to join the project. The project's organisers believed that it would add value to incorporate into the project a country that belongs to the Common Economic European Space.

The members of the NYMPHEA Association work in cooperation and discussions at a European level, with the following objectives:

- improve of vocational training and local development opportunities
- accompaniment and qualitative support for transfer of technology and knowledge between the regions and countries of the Union.

The countries develop partnership projects through different European projects. As a result, they have created various teaching resources for e-Learning, prioritising the use of new multimedia technologies and of the internet, as a way of innovating and improving the quality of learning. They promote the use of learning and teaching materials that enable exchanges and distance learning.

With those objectives in mind and having created new products and activities for e-Learning, NYMPHEA wanted to find out how it could continue to contribute to improve learning standards in e-Learning in Europe by analysing what was happening across the territory of the NYMPHEA members.

That was the context in which the SLIDE project was initiated and the main general objectives of the project in each of the participating countries are as follows:

1. To have an up to date perspective on each partners national e-Learning policy, in a comparative perspective with the reality of the European Union;
2. To identify the added-value and the successful practices of ICT introduction in education and training processes;
3. To study the mechanisms for the transfer of successful practices between the organisations of the participating countries.

The Project Team

The Slide Project involves the participation of seven partner organizations from six European countries: France, Iceland, Italy, Portugal, Spain and United Kingdom.

Here we make a short presentation of each partner organization.

From Portugal

IEBA – Iniciativas Empresariais Beira-Aguieira (www.ieba.org.pt) was the promoter of this project.

IEBA is a local development association located in Mortágua, on the Central Region of Portugal and it was founded in 1994.

It contributes to local and regional development by supporting initiatives in the economic, cultural, social and educational domains and through the valorization of region's human capital, businesses and organizations.

IEBA works in local, national and European partnerships.

This association is constituted by 3 Departments with multidisciplinary teams serving the community:

The Training and Education Department – works on vocational training for employed and unemployed individuals and promotes the employment of workforce.

The Development and Projects Department – works on local development through national and community programmes.

The Business Support Department - provides technical support for regional businesses.

From France

The Centre de Formation Professionnelle et Promotion Agricole de Sainte Livrade sur Lot (www.ste-livrade.org/cfppa) is part of L'Etablissement Public Local d'Enseignement et de Formation Professionnelle Agricole de St Livrade sur Lot (EPLEFPA) – an education complex that has another 3 centres as well as the CFPPA:

The College for General Education and Agriculture "Etienne Restat" (LEGTA),

- The Departmental Centre for the Education of Agriculture Apprenticeship of the Lot-et-Garonne (CDFAA 47) and
- A centre for research on agricultural teaching

The centre CFPPA is available for farmers and for the agro-food companies and their personnel in the Lot-et-Garonne region. Their work is in the following areas:

- At a department and regional level, especially in the sector of production;

- At a national level in the specific training of Production and Agro-food and
- At an international level in the area of European projects such as Leonardo da Vinci, ADAPT, Empleo, etc.

They focus on Open and Distance learning education/training resources.

The Centre de Formation Professionnelle Forestière (www.cfpf.org) is part of the services provided by the Chamber of Commerce and Industry of Drome.

This centre has become a leader in the domain of vegetation and ornamental trees for urban spaces.

It has a multidisciplinary team of experts and tutors who work in the following areas:

- Analysis of the wood and timber sector
- Technical support and consultancy,
- Sustainability of forest and biodiversity,
- Financial and economic management,
- International cooperation,
- Audits,
- Vocational training.

From Iceland

The mission of the University of Reykjavik School of Science and Engineering (www.ru.is) is to provide university education in the fields of engineering and computer science with special emphasis on research, development and innovation.

In addition to acquiring a broad theoretical basis, students participate extensively in practical projects in close co-operation with local and international businesses and research institutions.

This School of Science and Engineering offers a great variety of programmes/courses for continuing professional development.

The Computer Science course interacts with various fields of study, such as mathematics, psychology, engineering and business studies.

The University offers IT courses for graduates and undergraduates. It has a diverse and creative learning environment, where students can work in close contact with academics or in the actual business world.

From Italy

The Coordinamento Nazionale Comunità di Accoglienza (www.cnca.it) is a national federation founded in 1982 with more than 250 Voluntary/Social Economy member organisations, such as: associations, social cooperatives and host communities located in 14 Italian regions.

The CNCA member organisations work in the following areas of activity: drug addiction, vulnerable youngsters and families, ex-inmates, alcoholics, mentally ill patients, AIDS patients, the homeless, vulnerable women and immigrants.

In the 90's, in order to respond to its members needs, the CNCA built a support network, called Agência Nacional (in English, National Agency), with the following objectives: training of Social Economy agents, create national and european projects and carry out researches and social marketing. Their ultimate target is to improve the standard of services of its member organisations.

From Spain

The Organismo Autónomo para el Desarrollo Local (www.oadl.dip-caceres.org) specialises in local development and employment in the Diputación de Cáceres (Caceres County Council). It offers consultancy and direct intervention to municipalities and communities in the province of Cáceres. Their aim is to ensure that citizens have access to professional training, employment and market and social participation.

OADL is organised in different departments, with the following objectives: support and improve participation in planning, development of economic and social values, develop businesses and workforce, improve the ability of opening new businesses, promote technological innovation and development, promote foreign cooperation, communication and relations.

From United Kingdom

Otley College (www.otleycollege.ac.uk) is a Further and Higher Education College which offers a great variety of vocational courses and provides training and support for professionals and entrepreneurs in the rural area of East Anglia, United Kingdom.

Otley College works closely with local organisations in order to promote education and development in cooperation with national and international partners.

This organisation has been involved in other local, national and international projects and has improved training standards by integrating new technologies and promoting exchange of experiences in order to better meet their region current and future demands.

Project Activities

The SLIDE Project involved two major activities: the Policies Analysis and the Field Analysis.

Policies Analysis

The first part of the project consisted on collecting relevant and up to date information about the situation of e-Learning in each country of the partnership. We called this activity "Policies Analysis" and it involved two sets of tasks:

- To identify the policies of e-Learning in each country, by looking into the current legislation and support programmes and to look at e-Learning statistical data available;
- To interview experts/researchers on the field in order to learn their opinion of about the current state of e-Learning in each country and how it compares with the European situation.

The information gathered during this stage is presented on the second part of this report. Those informations were important for the project team to create a common framework as well as the construction of the conceptual model that oriented the second part of the study: the Field Analysis.

Field Analysis

The second part of the project consisted on collecting information directly from e-Learning users and producers. Our aims were:

- To create and present indicators that can measure the added-value of ITC penetration in the education/training processes and to establish criteria that allows us to recognise successful practices of the introduction of ICT in these processes;
- To identify and describe the added value and successful practices developed by the users of this activity;
- To identify, organise and promote the mechanisms to transfer successful practices of ITC used in the education/training processes.

In order to achieve those goals we developed several activities as following described.

The On-line Questionnaire

We built a questionnaire directed to students, tutors and administrators in order to get their perception of the added-value of ITC penetration in the education and training processes. The respondents were recruited in schools, universities, training centres and training companies that already had some experience with e-Learning. The questionnaires were made available through the web in six different languages.

The model of analysis used for the construction of the questionnaire was based on the data gathered during the Policies Analysis as well as on some informations obtained through the workshops that took place in each partner country.

The responses were gathered in a period of one month and then analysed. The results and their discussion can be found on the third part of this report.

The Workshops

Each partner organized a workshop directed to local and regional agents somehow related to education and training, with or without experience in e-Learning.

The workshops served two main objectives:

- The identification of the criteria and indicators for the measurement of the added-value of ICT introduction in the education and training processes;
- The identification of the criteria and indicators for the evaluation of good e-Learning practices.

The first goal was closely linked to the construction of the on-line questionnaire since those criteria and indicators were used as conceptual model for the elaboration of the questions and for the interpretation of the results.

The second goal is related with one of the project goals: the identification of good e-Learning practices.

The workshops and their outputs are presented on the fourth part of this report.

The Seminars

Each partner also organized a local seminar for the dissemination of the project results. Those seminars counted with the presence of an invited partner of a different country.

Just like the workshops, the seminars were directed to:

- Organizations which have the responsibility to finance the vocational training;
- Training organizations with or without experience in e-Learning;
- People having recognized expertise in e-Learning, ODL or Distance Learning;
- Local/Regional organizations that are client of training with or without experience with e-Learning.

The project promoter organized a final seminar to disseminate the results of the field analysis. All the partners were also present at that event.

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Part II

Policies Analysis

Diagnosing the health of e-Learning in the different countries

According to the European Commission e-Learning is "the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services as well as remote exchanges and collaboration."

We might suppose that this definition would be equally understood and equally adopted by all the member states, but the fact is that it is not. Different countries have educational and training systems with a different past and have different levels of ICT penetration in their societies. These differences are more than enough to produce significant disparities in the way e-Learning is understood in the different countries, and those understandings reflect, not only on the national definitions of e-Learning, but also on the different situations and policies for e-Learning too.

This second part of the report is dedicated to the analysis of those informations that each partner of the SLIDE Project collected about the situation of e-Learning in their respective countries as well as the correspondent national policies for e-Learning.

France

Data Sources

The data about the situation and policies of e-Learning in France was gathered from:

- Specialised websites (see table)
- Experts directly interviewed (known experts, experts that have written reports about ODL and persons responsible for ODL in each region)
- National and European reports

The Referente Websites about ODL	
Algora – Dat bank of resources for ODL	http://ressources.algora.org/
Espace-formateurs	http://www.espace-formateurs.org
Forum Français pour la Formation Ouverte et à Distance	http://fffod.org/fr/index.asp
Le Préau, tutoring and coaching in e-training	http://www.preau.ccip.fr/
Database of utilities for ODL	http://www.onlineformapro.com/index.htm
Thot - The Francophone reference in ODL	http://thot.cursus.edu/
Educnet - The website about ODL of the Ministry of Education	http://www.educnet.education.fr/default.htm
The ICT portal in Québec	http://ntic.org/index.html
The ODL network of the CCI	http://www.miriad.asso.fr/index.htm
The website of ARDEMI	http://www.ardemi.fr/
Learning Management Systems	
How to make a good use of a LMS?	http://ressources.algora.org/ressources/environnements/tel/upf.pdf
LMS of the Digital University of Strasbourg	http://acolad.u-strasbg.fr/
Free LMS	http://www.claroline.net/
Free LMS	http://www.anema-formation.fr/ganesha/
Free tool for the support of Online Cooperative Work	http://www.mayeticvillage.fr/
LMS of the CNAM	http://sudest.pleiad.net/
LMS of the Rhône-Alpes Region	http://rrfc-ra.org/specific/skins/default/page.asp?body=/specific/portail/home.asp
ODL Conception	
How to conceive and put into practice ODL devices	http://www.csti.pm.gouv.fr/elements/eLearningCRIPT12-02.pdf
Guide for the conception of a pedagogical product base don the usage of ICT	http://www.int-evry.fr/tice/guide/
Guide to the preparation and presentation of a pedagogical scenario and a learning activity	http://ntic.org/guider/textes/div/bibscenario.html
Conception of an educational website	http://aptic.ulaval.ca/guidew3educatif/

THe building site for the pedagogical conception	http://www.ulg.ac.be/geoeco/Img/competences/chantier/peda_table.html
Supporting tool for the conception of personalised learning paths	http://www.3deproject.com/
Tutoring	
Determine your cognitive style	http://www.mastership.fr/test_st.htm?IdIg=1&IdQuizz=12
Guide for the framework of Internet courses	http://www.cegepadistance.ca/cours/geci/guide.htm
Communication modes and the functions of cooperative work	http://benhur.teluq.uquebec.ca/~ckeating/COMMUNICATION_ET_INTERNET.htm
Tutoring strategies	http://tecfa.unige.ch/perso/class/tutorat_cvs/grille_tutorat-3.html
Kolb Test – Testing your learning profile	http://www.savie.qc.ca/samidps/QuestionnaireTeluq/Questionnaire1/Questionnaire1.htm
Costs	
Research MEN, Bureau B3 about the costs of ODL	http://www.educnet.education.fr/chrgt/FOAD-couts.pdf
Coster – Software for the calculation of the ODL costs	http://www.onlineformapro.com/google.asp?q=coster
Legal Aspects	
Royalties, Bench Marks - Equal	http://www.racine.fr/virtual/22/Documents/pdf/Guide4.pdf
Legal Guide - les Fiches Pratiques d'Algora	http://ressources.algora.org/reperes/reglementation/juris/index.asp
The point of view of the Ministry of Education	http://www.educnet.education.fr/juri/default.htm
Reference Documents	
Managing competencies in you ICT projects - COMPETICE	http://bd.educnet.education.fr/competice/superieur/competice/index.php
Integrate ODL devices – Collectif du Moulin	http://ressources.algora.org/reperes/tel/moulin.pdf
Good practices in ODL	http://tfs.afpa.fr/site2/index.asp?rubr=131&idserie=51
Reference mark for online trainers	http://www.tic-et-foad.org/eplug/extra/ees/index.asp?ignoreCookie=&lien=
Data Banks	
Educagri – Data bank of ODL resources	http://www.educagri.fr/bder/index.cfm
Educasource - Data bank of ODL resources	http://www.educasource.education.fr/
Educasup - Data bank of ODL resources	http://www.educasup.education.fr/
Europe	
ElfEL - Let us build the knowledge society together.	http://www.qwiki.info/
The eLearning of the European Commission	http://europa.eu.int/comm/education/programmes/elearning/index_fr.html
Norms and ICT	http://www.standarmedia.com/std/STD_ACC.ASP?cookie%5Ftest=1
European portal of e-Learning	http://www.elearningeuropa.info/index.php?lng=3&doclng=3&x=5&y=8
European Network of the distance training	http://www.eden-online.org/eden.php?menuId=222
Selection of websites about distance training	http://www.ac-nancy-metz.fr/tice/UsagesPedagogiques/PlateForm/rapport/SelectionSITES.htm

Definition of e-Learning

In France, the word “e-Learning” is not used and the preferred designation is “FOAD: Formation Ouverte et A Distance” that can be translated as “ODL: Open and Distance Learning” or “Blended Learning”.

The official definition is: “It acts of a flexible device of formation, organised according to individual or collective needs, which includes individualized trainings, the access to resources and local or distance tools, and which is not necessarily carried out under the permanent control of a trainer".

This definition of ODL differentiates it from the concept of e-Learning that involves the exclusive usage of digital media accessible from distance and excludes the face-to-face training, even when the synchronous training plays a major role.

ODL doesn’t pose any restrictions to the nature of the resources that can be used, so in this sense is more flexible and open then e-Learning and is somehow closer to the Anglo-Saxon concept of Blended-Learning.

Open and Distance Learning is not as recent as one may suppose but the emergence of the digital era rapidly changed the traditional teaching and training methods. This is why people in charge of these issues decided to take those changes into consideration on the policies for development.

Policies for e-Learning in France

In France there are general laws about education and training and there is a specific one that regulates all about the distance learning (e-Learning, blended learning or ODL). It is the decree of the 20 of July 2001 from the DGEFP (General Direction for the Education and the Professional Training).

Even if French State keeps the overall control of education, pedagogy and teachers, local communities play a more and more important role in the financing of equipments. So they have an influence on the teaching choices and particularly on e-Learning because this method is not possible without a minimum of equipments in the educational establishment as well as an adequate ICT infrastructure in the territory.

Roughly speaking, education in France depends from 3 ministries and, even if they do not influence directly the public policies, the 3 consular chambers play an important role on the initial learning and vocational education and training.

The most important is the Ministry of Education, Higher Education and Research that is in charge of technical and general education and, partly, of the adult learning and vocational education.

The Ministry of Employment, Labour and Social Cohesion is in charge of learning and vocational education for wage-earners and job seekers.

Finally, the Ministry of Agriculture, Nutrition, Fishing and Rural Affairs is in charge of all the agricultural education, i.e. general, technological, initial and continuous education.

The consular chambers - agriculture, trade and commercial associations and industry -, which are the second French education providers, have a wide educational offer with preference to alternate systems and also numerous training courses for all the employees of a firm.

According to the main direction given by the government and working together with the other ministries and the local communities, each one puts in place its own policy for the development of e-Learning.

Regions have a general power for the continuous education. The State is in charge of the people who are in difficulties, of the professional sector and the companies.

Working together with the State and social partners the regions manage the training offer by the regional development plan: professional training, initial and continuous education, for young from 16 to 25 and professional actions for adults.

The Regional Council, which is a political assembly, decides the main directions of the department and finances the teaching equipments of the schools (i.e. computers devices). It also participates on the setting up of high level Internet, which is an essential condition for the development of the e-Learning.

Finally, the communes that are responsible for the acquisition and maintenance of the training equipments of primary schools depend on the mayor's will to equip the schools and connect them into networks of computers.

In France, the ODL doesn't have a special budget. Its financing is integrated in the total cost of the training and the training organisation receives a price per hour of training including the cost of tutoring.

The equipments are paid in majority by the municipality (primary school), department (college), region (secondary school), government (university) and companies for the workers.

The training is paid by the government for primary school until university and disadvantaged unemployed people, by the region for unemployed people without disadvantage and by special private training fund for the wage earner.

Currently, the difficulty is to give the proof that a student has really followed his training, which is easy with the tracking in LMCS but more difficult for the tutoring when a big part of it is done by phone instead of chat, email or forum.

The present actions of the Ministry of Education, Higher Education and Research are based on the results of the initiatives conducted between 1997 and 2000. The following ten may be considered the most important ones:

1. The development of infrastructures and its consequences – the evolution of the computers park, connection of the educational establishments to the network, a high level transformation, a new working environment and the human support to these changes.
2. The evolution of the contents and the training practices, taking into account the ICT, the evolution in the syllabus, the evolution of the acquisition modes in training and the creation of a new diploma: Brevet Informatique et Internet.
3. The training of the teachers of UFM as well as the training of trainers and managers.
4. The production and usage of digital resources and services, as the brand "RIP" (Reconnu d'Intérêt Pédagogique) that guarantees to teachers that the product used corresponds to the syllabus evolution; the support to the development of CD-ROM products and training websites as well as the digital broadcasting.
5. The development of the French offer in university education, particularly by the means of a network of digital campuses and the creation of a website named "Formasup" that lists the offer in distance training and provide all the information about university level education though ODL.
6. The effort on the research particularly with the creation of an audiovisual and multimedia innovation network, the creation of a European residence devoted to educational technologies - "La Villa Media" - and the support to research in education.
7. The support to creation and development of news companies by the creation of an incubation centre - "Belle de Mai" - devoted to the development of educational and cultural multimedia and a fund – "C-Source" - to support young companies of multimedia (particularly from the educational sector) through financial participations.
8. The signature of partnership agreements.
9. The internationalisation through the creation of electronic training international networks, the participation on various European meetings about e-Learning and the establishment of multi and bilateral relationships.

10. Information and communication through the creation of "Educnet", a website that contains important reference texts, examples of training practices, a list of resources, document reviews, a news section and also a specialised column to guide the users on legal issues.

So, the current policy of this ministry takes into account the results of its former policy as well as the will of the French State expressed in 2002: "Internet for all".

For the educational system the main objective of this plan is to reach, within the three coming years, the general usage of the new technologies, that is to say a use rate of more than 50%. This is a major step. The second objective is a better knowledge of training uses and the elaboration of a common plan to solve the problems and to go round the brakes.

The Situation of e-Learning in France

Primary school: 550 schools received computers and ICT equipments. Twenty-two pedagogical scenarios are available on line.

College and high school: 350 000 connexions each month and twelve subjects are available on line.

Universities: Twenty-seven universities offer ODL and 6 universities propose all the degree courses on Open and Distance Learning. About 2000 units of course are available on line (more than 900 000 documents) and more than 200 000 students use them (but only 70 000 hours of training).

Unemployed people:

- 298 Access Points for Distance Training (P@T) for all French territory but with a high disparity in the distribution
- More than 10 000 beneficiaries about 24% of the trainees who is less than 26 year old and 68% are women.
- People with low level of qualification represent 56% of the total trainees.
- 60% of beneficiaries are job seekers.
- 62% of the tutoring realized in the P@T concerns to basic trainings (mathematics, languages, grammar…) and office automation.
- Less than 9% of the people who follow training in a P@T abandon the process of training.

Enterprises:

- Less than 10% of the French enterprises use ODL.
- 55% of the enterprises using ODL have more than 1000 wage earner.
- The majority of the enterprises (27%) trains between 1 to 5 workers with ODL, which is very low.
- 61% of the total courses include more presence than distance.
- ODL is less than 25% of the total training budget devoted to the training.
- More than 55% of this budget is used to buy pedagogical resources.

Iceland

Data Sources

The data sources used by the Icelandic partner in order to gather information about the situation and about the policies of e-Learning in Iceland were:

- Ministry of Education
- Government reports
- Reports from academics
- Interviews with specialists
- Data from Continuous Educational Centres
- Data and information from thesis and research reports (masters)
- Statistics from the Statistical Office of Iceland
- Internet Resources

Definition of e-Learning

In Iceland, the concept of e-Learning is somehow substituted by the concept of Distributed Learning inspired on the Ehrmann's (1988) definition of distributed learning environments as "all the resources within the learner's reach and all the means of reaching them."

These are the main features that are attributed to Distributed Learning in Iceland:

- Learning which take place in the network environment
- Is both distance education and classroom-based education with the use of electronic educational opportunities
- It has the "anywhere-anytime-anyplace" character but is also based on "here and now"
- The teachers and the students can be located at the same place but with the opportunity to be at distance

In summary, distributed learning is an instructional model where teachers and students can be located in different places and the teaching and learning can occur independently of time and place. This learning modality requires that the students take more responsibility of their study and different subjects make different use of these new opportunities.

Distributed Learning is having a great impact on the residential education and the higher education structure in Iceland and schools are offering new forms of education more flexible in terms of location.

Policies for e-Learning in Iceland

In Iceland e-Learning and Continuous Education are sponsored by:

- Ministry of Education
- Ministry of Social Affairs
- Ministry of Communication
- Ministry of Agriculture
- Local authorities
- Trade Unions - Labour Unions

During the years of 1998 and 1999 the Icelandic Ministry of Education supported the establishment of a Net of centres for continuous education with the objective of offering new educational opportunities to the people living in the rural areas.

The Ministry of Education also published formal policies for e-Learning:

- Some proposals on education, culture and information technology were made from 1996 to 1999.
- From 2001 to 2003 the Ministry launched a project plan for electronic education that emphasised the use of the Internet as an information channel for schools, for example through the development of distributed learning.
- The Ministry's goal was to bring Iceland to a leading position on providing an education suitable to the needs of an IT community.

In 2004 authorities introduced a new policy on IT in Iceland for the period of 2004-2007, stating the importance of several points:

- The need of increasing the opportunities for individuals and businesses to distribute and gather knowledge, communicate and engage in business activities anytime and any place.
- The access to high-speed Internet services as well as the security of information and personal privacy.
- The role that information technology must play on the support of an improved quality of life through areas such as education, culture, healthcare and a range of other social dimensions.

Considerable funds have been allocated to the further education of teachers and the development of distributed learning. A budget is earmarked for special projects such as Inna, an information system for colleges of education and the FS-net, a high-speed Internet connection service to which some 60 institutions are presently connected.

The Ministry of Education conducted a survey about the possibilities for distributed learning in individual municipalities and suggested the foundation of centres for continuous education that have later materialised in some areas.

There are nine Continuous Education Centres that were established from 1998 to 2004, sponsored by the Ministry of Education and local authorities. They are located in towns or rural areas and they offer short courses to the public as well as responding to educational needs in the area (private sector and public).

These centres seem to make little usage of e-Learning and distributed learning.

The Ministry of Education made Specific Teaching Contracts with:

- Universities
- Continuous Education Centres
- Special projects

- The Ministry of Education also sponsors international projects:
- Northern Periphery Programme
- Community Learning Networks

The Situation of e-Learning in Iceland

Iceland has a long tradition in distance education:

- In 1979 the Educational University offered distance learning for the first time
- In 1988 the Icelandic Educational Net was established
  - many schools and colleges were linked to the Net
  - most e-Learning that is done in Iceland nowadays is still based on that net
- Between 1994 and 1998 the number of schools offering e-Learning increased rapidly
- In 1998 four Universities offered e-Learning programs
- Between 1999 and 2002 many secondary school started offering e-Learning
  - Learning Management Systems such as WebCT, Blackboard, Angel and MySchool have been used.
- At the start of this project (2004) 7 universities and 15 secondary schools were offering e-Learning.

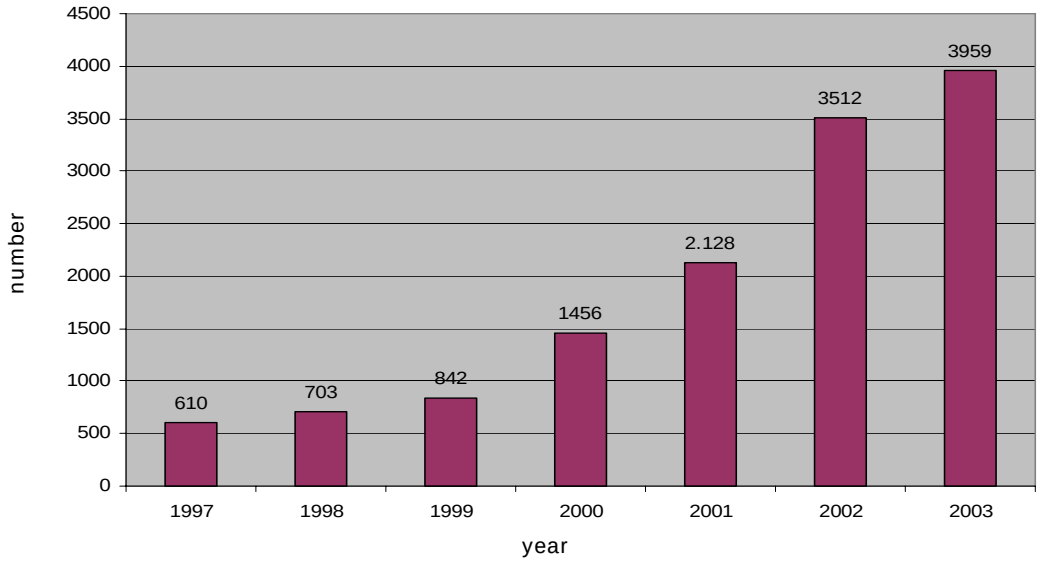


Figure: Increase in the number of students in distance education at college and university level 1997-2003

Distributed Learning is used at the university level and upper secondary school level. There are also some experiments at the compulsory school level.

Most universities in Iceland adopted distance education and have developed different methods for the dissemination of education through the Internet.

Universities and continuous education centres also have been building up co-operation projects in distance education.

Here are some figures concerning the ICT usage in Iceland*:

- 86% of the population has access to a computer at home
- 81% of Icelandic homes are connected to the Internet
- 74% of the Internet users use it on a daily basis
- 99% of the Icelandic companies use computers
- 97% of the Icelandic companies have access to the Internet and use it
- 70% of the Icelandic companies have a webpage

*Data from the Icelandic Statistical Office, 2002 (www.hagstofa.is)

The following table shows the analysis of the status of the education in the Icelandic seaside communities (Data are provided by the Regional Development Office):

Seaside community	Strengths	Weaknesses	Threats	Opportunities
Seaside Community in general		Few university educated individuals. Expensive distance education. Students' dropouts.	Weak position of colleges. Negative attitudes towards education. Slow developments in distance education. Lack of teachers.	Increased distance education. Continuing Education strengthens competitiveness. Increased Collaboration between schools. Further education creates more job opportunities.
South Iceland and The Reykjanes peninsula	University department in Vestmannaeyjar. Distance education based in Vestmannaeyjar. Good educational facilities. Centre for continuing education. Good comprehensive colleges.	Low ratio of university educated individuals.	Difficult to organise a university department.	University department in Vestmannaeyjar. Education focusing on the special features of the area. Learning centre in Reykjanesbær.
West Iceland	Centres for continuing education. Distance education in Grundarfjörður and Stykkishólmur. Comprehensive college in Akranes.	No Comprehensive college in half the area. Distance learning more costly. Greater Education expenses.	Relatively few taking courses of further education.	Increased opportunities for studying locally. College in Grundarfjörur. West of Iceland centre for continuing education.
The West-Fjords	Ísafjörður Grammar School. The West Fjords Education Centre. Distance education at University level.	No university Offering Constant Education. Few university Educated individuals	Difficult access to schools at College level	A university branch in Ísafjörður. Distance education is a key to success.
North Iceland	Akureyri University. Colleges. Education centres – centres for continuing education. Schools in seaside communities. Workshops.	No colleges in smaller communities.		Promotion of education options.
East Iceland	Colleges. East Iceland education network. Collaboration with universities. Distance education. Schools in seaside communities.	Long distances to schools. No university in the area.		Development of the East Iceland education centre. University studies in East Iceland. Nýheimar.

In conclusion, the specific policies for e-Learning and Continuous Education seem to show some effects:

- Number of students who choose e-learning was 600 in 1997 and increased to 3959 in 2003;
- The student population is growing older, which means that more people and older people have access to continuous learning;
- The number of students in the rural areas increased thanks to the easier access to learning.
- And there are now more educational opportunities for people.

Italy

Data Sources

The data about the situation and policies of e-Learning in Italy was gathered from:

- Specialised documentation and websites
- Interview with Dr. Claudia Montedoro, from the ISFOL, Manager of Educational experimentation area, responsible for technical assistance for the achievement of a permanent integrated system of work starting

Definition of e-Learning

E-Learning is a term that is gradually taking the place of "distance learning" and can be defined as "a way of learning through Information Technology which is used for didactics and communication"[1].

According to the Anee (National Association of Computer-aided Publishing), that has been editing an observatory on the sector working in collaboration with some Italian firms for several years, focusing on supply and demand characteristics as well as trends of Distance Learning, it comes out that in Italy:

"E-Learning is a method of teaching and learning that involves both the product and the educational process. By "educational product" is meant any kind of materials or contents available in a digital format through Information Technology and networks. On the contrary, by "educational process" is meant the management throughout the whole training course, thus involving all supply, fruition, interaction and evaluation aspects. From this point of view, the real added value of e-Learning emerges through assistance and tutorship services, carried out by both synchronous and asynchronous interaction, as well as sharing and cooperation at a community level.

A peculiarity of e-Learning is its high flexibility as its educational contents are at any learner's disposal whenever and wherever he likes, allowing self-management and self-determination in the learning process; however it is vitally important to plan a schedule of activities that makes both trainee and trainer aware of their responsibilities so as to achieve the goals previously defined."

(http://www.anee.it/ricerche/osservatorio04/materiale_elearning/elearning04l.asp)[2]

Therefore, in any e-Learning system there are different subsystems[3]:

Technologies, comprising some devices (personal computer and server), programming languages, a networking architecture, application programmes, platforms, communication channels (by the Net or over the air).

- Organisational structures, where new and old professions (such as teachers, trainers, secretaries, tutors, editors, community managers etc.) co-operate in order to integrate the educational activities into the customer's system, according to the objectives to be achieved. They guarantee that

1 Cf. Deplano V.,Venti parole per dirlo (2002), For, n. 53, pp. 61-64, FrancoAngeli Pubs.

2 AA.VV. (2004). *e-Learning: Evoluzione del mercato nel sistema Italia. Impresa, pubblica amministrazione, scuola e università - Osservatorio ANEE/ASSINFORM 2004.* Milano: Mondadori Informatica.

3 Cf. Rapporto ISVOR FIAT (2000). Nuove tecnologie, Formazione a distanza e Professionalità dei formatori.

deadlines are met, information is widespread and submissions, evaluations and certificates are managed.

- Social Networks (such as "communities of learning" or "practical communities") that are able to include participants into vertical relationships (with the staff) and horizontal ones (between themselves) through synchronous channels (such as virtual classrooms, chats, teleconferencing and in person meetings) as well as asynchronous channels (such as forums, web sites, newsgroups etc.)[4].

Educational systems, directly aimed at teaching/learning the subject-matters, such as:

- Live and recorded sessions, with a teacher giving lessons following the traditional model (as in the Neptune project);
- Texts, audiovisual aid, set of slides and other materials;
- Autodidactic courses[5].

Therefore e-Learning is characterized by the following variables:

- *A combined use of different media*, enhancing an effective integration between media so as to help a better comprehension of subject-matters;
- *Interactivity* between materials that helps personalized courses and enhances the student's active involvement;
- *Human interactivity* that helps the creation of collective contexts of learning (virtual classes);
- *Adaptability*, that is to say the possibility of arranging personalized courses according to the performances and interactions of the user with the on-line topics;
- *Interoperability*, that is the possibility of re-using and integrating resources already used or created through technological systems and the adoption of standardized and sectional specifications.

Policies for e-Learning in Italy

As in other countries, investments in e-Learning systems went through some phases[6]. Since the beginning of the 90's, the most advanced organizations in this field have equipped themselves with a sizeable catalogue of self-learning courses, with the intention of taking the place of the more expensive classroom training courses . They didn't have much advantage in return[7] for two reasons:

- A scarce attention on methodological aspects (courses were a little more than series of tutorial screens even though, in the best cases, they were presented through a captivating multimedia software).
- Non-management of training process, particularly of the relationship with the trainees.

Recently, the management of training process (at least in the supply and evaluation phases) has been arranged through sophisticated e-Learning platforms[8], able to provide a great number of services such as:

- On line courses.
- Materials availability.

4 AA. VV. (2002) La formazione continua in rete, In F. Frigo & P. Richini (a cura di), *I laboratori della formazione continua*, FrancoAngeli, pp. 237-313.

5 Deplano V. (1997). "Agire da manager": corso autodidattico. *Notiziario dell'Ordine degli Psicologi del Lazio, Speciale Pis: Psicologia Innovazione & Sviluppo*, n. 5/6/7 2003, pp. 130-131.

6 Varisco B.M. (1998) Sviluppo storico delle tecnologie informatiche e della loro applicazione alla didattica e alla formazione, In B.M. Varisco (a cura di), *Nuove tecnologie per l'apprendimento - Guida all'uso del computer per insegnanti e formatori*, Garamond Ed., pp. 11 – 64.

7 Fortunato V. (2004). La "crisi" italiana dell'e-learning: un'occasione perduta? *E-Learning and Knowledge management*, n. 1, pp. 4-8.

8 E.g., the University La Sapienza – Rome has recently adopted the Moodle platform (http://elearning.uniroma1.it/).

- Learning evaluation by means of tests.
- Keeping track of attendance and scores and issuing certificates.
- Virtual classes (synchronous and video-recorded lessons).
- Community functions (forum, newsgroup, chat, joint notice-board, etc.).
- Knowledge management functions[9] (in the most advanced cases).

Meanwhile, there has been a strong technological development towards the large band connectivity (which allows a real combined use of different media) as well as new languages spreading out applications and faster and faster machines[10].

Then the adoption of e-Learning[11] platforms has brought about some important consequences too:

- The almost complete giving up of out net devices (such as CD-ROMs).
- The adoption of standards (created on advice of bodies such as Aicc, Scorm, Ims, and others) able to guarantee the interoperability of learning materials on different platforms.
- A new structure of self-learning courses, based on the concept of "learning object"[12]. The idea that came out from the modular and object-focused planning is that one of dividing courses into modules of small dimensions by using an open standard, so as to re-use these atoms of training, thus optimising investments.

The Situation of e-Learning in Italy

Many analyses prefigured a turbulent development of distance learning. Among the most relevant studies, there is that one of the IDC Research Institute, specialized in Information technology, that foresaw: "European e-Learning market will grow of 126% in 2001, to become of 6 billion dollars in 2005" (IDC, 2001, European eLearning Market Forecast and Analysis, 2000-2005).

Nevertheless, three years after these optimistic predictions, we are just in a period of stagnation (or rather in a real crisis) only partly connected to the economic and political international situation. According to the Italian Observatory Anee[13], the e-Learning market between 2001 and 2002 grew by 102,2%, and the incidence of the e-Learning on the ICT market as a whole shifted from 0,07% in 2001 to 0,14% in 2002.

The value of the e-Learning aggregate market (contents, technology, services and counselling) was of 256,3 million euros in 2003 (about 8,2% of total training expense). 30,4% of it came from training provided by inside structures and the remaining 69,6% by outside structures. About 22,1% of e-Learning derives from financially supported projects (FSE and public funds). At the end of 2004 the estimated worth of e-Learning market is about 428,8 million euros.

In particular the incidence of e-Learning market on the global worth of training market is growing, being at 3,8% in 2002 and at 8,2% at the end of 2003.

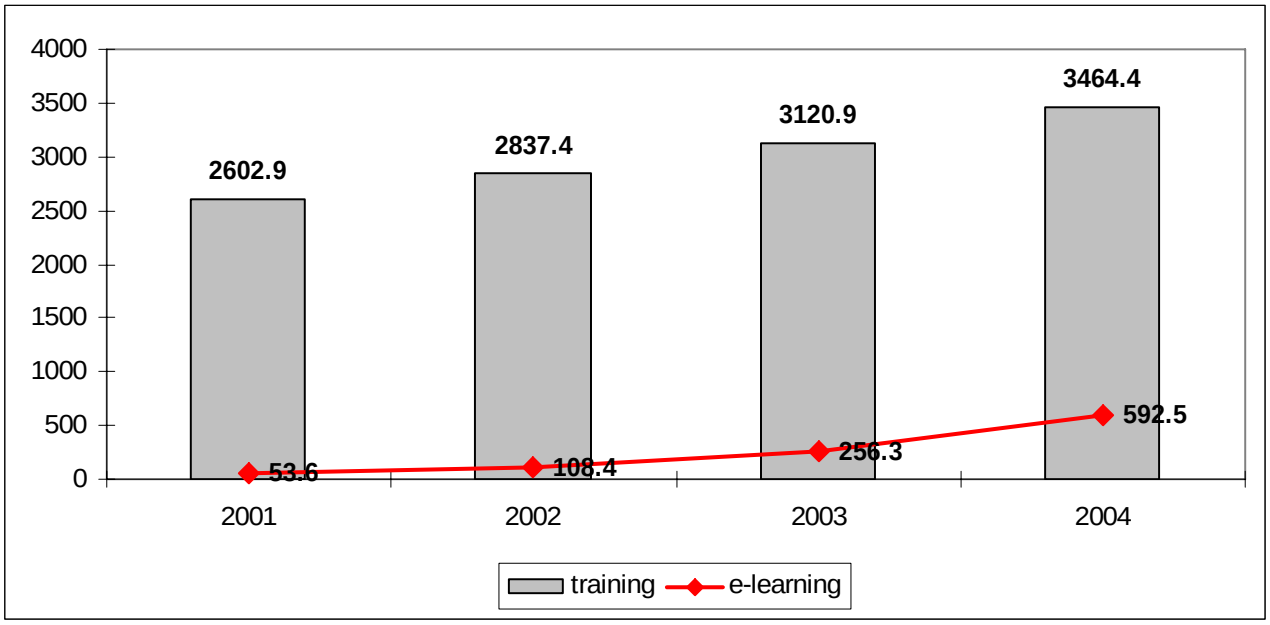
9 Rossi P.G. (2004). E-learning e Knowledge management. Modelli relazionali, linguaggi e tecnologie. *E-Learning and Knowledge management*, n. 1, pp. 50-53.

10 Garbolino F. (a cura di.) (2004). Dove va l'e-learning. *E-Learning and Knowledge management*, n. 3, pp. 58-63.

11 An example of open source platform (whose sources are at everyone's disposal) can be found at the website: http://www.spaghettilearning.com.

12 Giacomantonio M. (2004). Dai learning object ai percorsi di apprendimento. *E-Learning and Knowledge management*, n. 3, pp. 23-27.

13 http://www.anee.it/ricerche/osservatorio03/default.asp.



The worth of e-Learning and training markets in million euros, 2001-2004. Source: Anee Observatory 2003.

As you can see, the worth of e-Learning market grows constantly but slowly because:

- Against a growing number of organizations offering e-Learning, there was no organic nor structured growth in demand, especially within the SMEs;
- In this context of strong competition we are having many organizations going out of the market, particularly those of the "small" segment, as they are focused only on a ring of the chain of value.

A threshold of quality[14]

However there is another reason why there was not an e-Learning boom that is less connected to economic factors and the current business climate. The promising scenario of some years ago had at least one weak point: e-Learning systems travel on the wings of technology, ignoring the need for a "strong teaching methodology" – according to a definition given the pedagogue Benedetto Vertecchi - when the actual experience is on the contrary intrinsically based on a solid and validated theory[15].

A well-known marketing principle links the spreading of innovations to their quality, identifying a threshold for a "sufficiently good" quality, referred to an average user. In the same way, the life cycle of technological products is made of two different phases:

1. At the beginning, technology itself is a driving factor. A niche public, expert and enthusiastic, look for a product able to give the best performances (top speed, more functions etc.) even though it is difficult to use and relatively unreliable.
2. Quality becomes "sufficiently good" when able to satisfy the primary requirements of an average user. Then, technology is less important: customers take for granted the basic performances and look especially for reliability, simplicity, design (meanwhile prices go down).

Today e-Learning systems are still not sufficient[16], not particularly for their technology but for the teaching underlying methodology, which is simply ignored most of times.

14 About the controversal theme of quality in e-learning, cf. Fregnan E., Garbolino F. (2002) Criteri per la qualità nell'e-learning e AA. VV. (2003) La qualità dell'e-learning nella formazione continua, I libri del FSE - Rubbettino Ed. (also downloadable at: http://www.welfare.gov.it/EuropaLavoro/ProdottiServiziComunicazione/ProdottiEditoriali/CollaneEditoriali/La+qualitàdell'e-learning+.htm).

15 On the so-called "strong teaching methodology", cf. the section "articoli" at the website: www.glaux.it.

16 Deplano V., Gaglini F., Fiaschi S. (2003). Qualità nella formazione. *De Qualitate*, n. 9, pp. 55-59.

Strategic segments

The analysis of the chain of value shows how the very contents are the actual driving element on the market, with the highest values of growth. The value of other segments shows a relevant though stable growth over the following years.

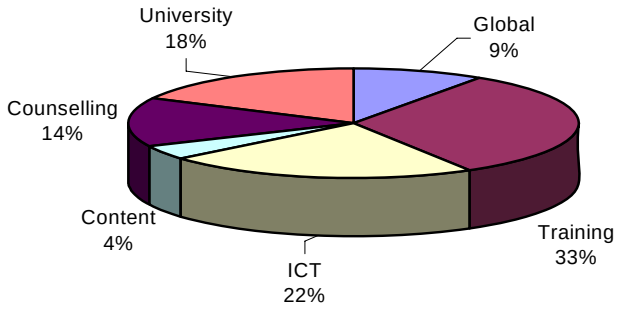
	Year 2002	Year 2003
contents	€ 45,10	€ 102,50
services	€ 23,80	€ 54,33
technology	€ 22,95	€ 53,30
couselling	€ 16,55	€ 46,13

Source: Anee 2003

The activity of production of contents is therefore the most important sector of the market, as, by itself, covers 40% of the whole turnover, followed by services (21,2%), technology (20,8%) and, lastly, counselling (18,0%). Technology, that represented the actual strength of the offer in the first generation market, little by little is loosing its importance, in favour of activities with a higher added value, related to the production of contents and the supply of services.

The offer

Presently there is no marked concentration of offer between operators of any area, at least from the quantitative point of view. In fact, the first two clusters gather 55% of total operators, which is a relevant value even though not very high.



Distribution of offer, with operators grouped into the clusters they belong to. Source: Anee Observatory 2003

Training companies came out to be the most relevant cluster, covering 33% of total amount of operators considered. This data confirms the close proximity between traditional and "web based" training, with the result that training companies have become the natural protagonists of the new phenomenon.

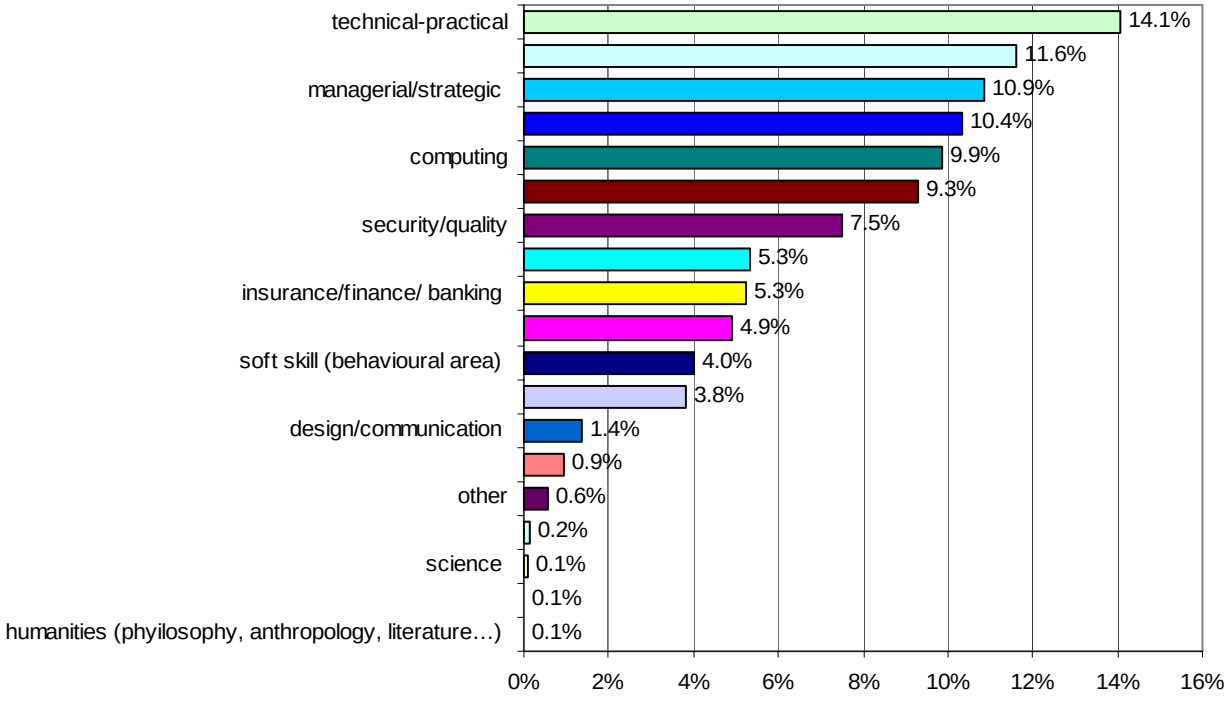
Second is Information Communication Technology (ICT) with a value of 22%. This cluster is extremely various as it is made of most of the big companies of the technological industry, that particularly offer qualifying basic platforms. Then there is a large cluster of small operators that is very vertical and specialized in developing tools able to support specific services or multimedia objects.

From the same quantitative point of view, counselling companies and universities are playing an equal role compared to the global e-Learning services, leaving behind them content providing companies.

Like in all developing markets, offer is very much fragmented and the number of operators is constantly rising with a strong proliferation of small operators vertically qualified.

The present trend shown by the new operators on the market is towards clustering, partly because of some barriers that, as a matter of fact, make a limit to entrance, such as quality standards, which are related both to technology and training process and are the very basis of the Service Charter that operators will be required to give to trainees.

The demand: the training subject-matters supplied by e-Learning



The distribution of training subject-matters on the total amount of e-Learning costs within the companies surveyed. Source: Anee Observatory 2003

The technical-practical subjects absorb mostly of the total amount of e-Learning costs, at distance followed by the segment ICT/TLC. It's not by chance that these subject-matters are the most directly connected to the training of technicians and employees.

Please notice that, when the technical-practical are gathered together with the economic/business subjects (such as "managerial/strategic", "marketing/trade", "net economy", "insurance/finance/banking", "administration and control") the total percentage is 35,6%, which is by far the area of most interest for investments, also thanks to its transverse appeal to all professional staff in a company.

The "language"[17] segment rises its importance even more than in 2001, shifting from 7,4% to 9,3%, and the segment "medicine" is quickly rising too: the latter almost didn't appear in 2001 whereas today its weight is 0,9% and it is estimated that it will be more than 3% in 2003, thus confirming the forecast made by the supply companies.

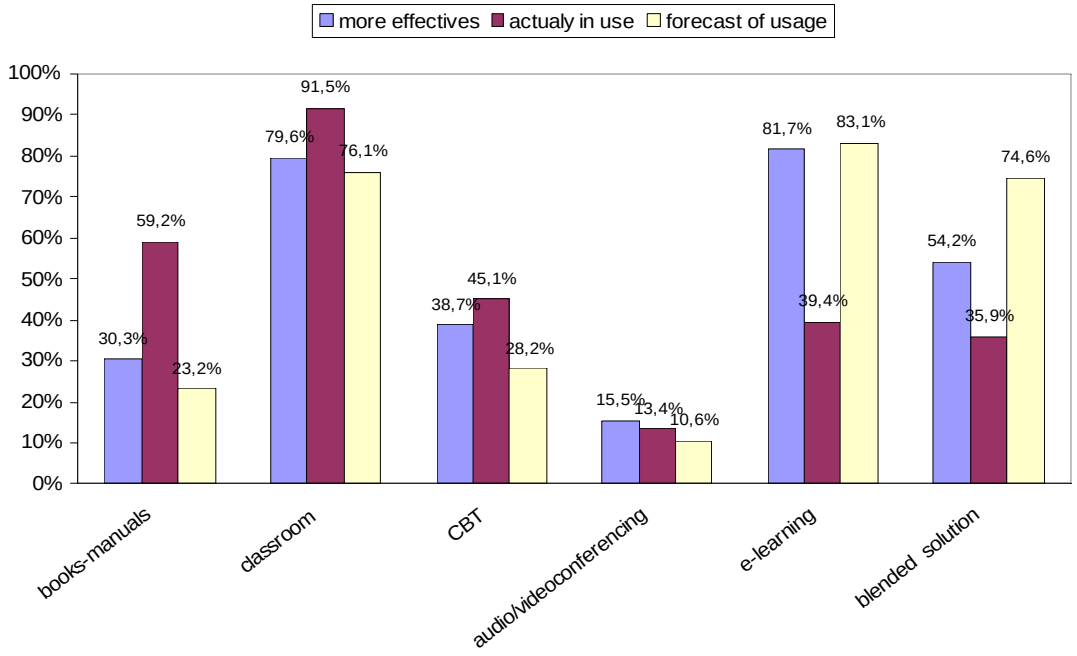
The demand: companies

The business sector, with 87,4% (Anee-Assinform 2004), is the main expense of e-Learning costs. There is a progressive clustering of the market around few, big and consolidated customers of on-line training.

17 An interesting experience on distance learning for the languages is that one involving Rai Educational and S3 Data, which is described in: Delle Piane A. (2001). L'italiano si impara on-line. *Next*, n. 12, pp. 132-136.

If it is true that within companies[18], traditional methodologies are still the most used (books-manuals and classroom training), nevertheless there is a strong belief that e-Learning is the most effective as a matter of fact. So the idea advanced for the next future is that basically there will be two different trends:

1. Supply of contents through classroom traditional training or e-Learning depending on the peculiar characteristics of the contents;
2. Supply of blended methodologies: a mix of classroom training and e-Learning joined together so as to supply the same training content.



The methodologies to supply training within a sample of the demand. Source: Anee Observatory 2003

Technological interface is in fact much less effective when the contents to be transfer are "rich" as for e.g. the managerial and organizational themes, whereas e-Learning is certainly a less limited technology for its capacity of integrating multimedia materials, video conference, synchronous and asynchronous communication, sharing documents and supporting group activities. In the forecast of usage, all the values decrease except for "e-Learning" and "blended", with a significant fall down for "books/manuals".

The demand: universities

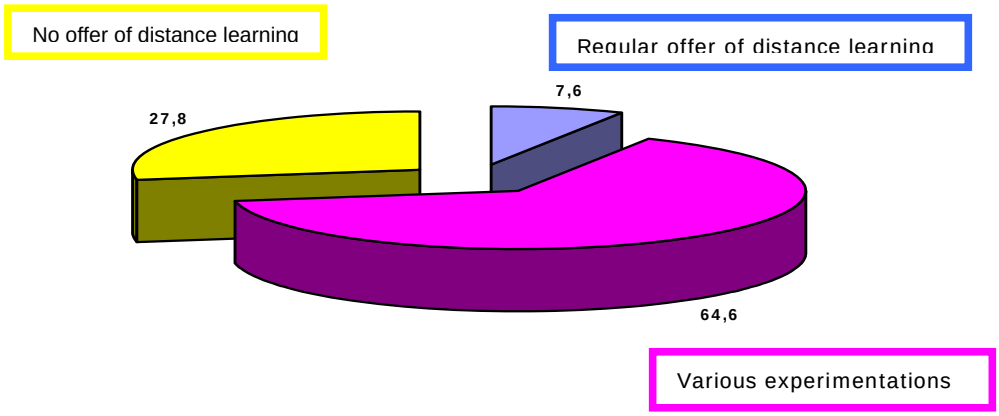
Universities[19] are playing a more and more relevant role in the offer of e-Learning contents, services and solutions: the same cannot be said for the demand.

The first result coming out from the survey is the different usage, occurring in many universities, of methods and techniques for on-line training, according to approaches and products variously qualitative and elaborated. Anyway in most of cases universities are still at their first or experimental stage of distance learning; only a few consider themselves as being able to supply e-Learning regularly, in a blended solution or completely on-line.

18 For an e-learning experience in a company, cf. Pilotti V.M., Lavazza E. (2002). Formare on-line i network internazionali: criteri e casi. *For*, n. 53, pp. 50-57, FrancoAngeli Ed..

19 On this subject, it's interesting the final document of the Internation Meeting Unimi held in 2002,"Elearning: una sfida per l'Università" – to download at: http://elearning.ctu.unimi.it/elearnconference/it/home/default.html. Also important are the experiences made by the university of Bergamo (http://www.unibg.it/struttura/struttura.asp?cerca=elearning_intro) e di Bologna (http://www.elearning.unibo.it).

A macro analysis shows that about 72% of Italian universities have been engaged in initiatives of on-line training during the year 2003.



E-Learning development carried out by Universities in Italy (a.y. 2002-2003). Source: Anee Observatory 2003.

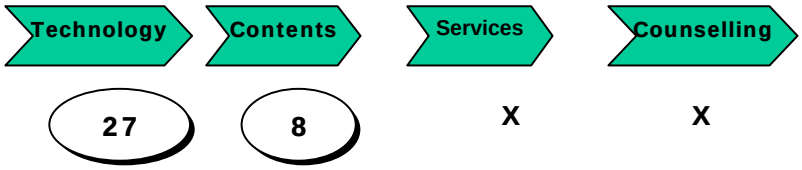
Only 7,6% of the total 72% is represented by those universities that regularly offer e-Learning, whereas the remaining 64,6% are the various and heterogeneous experimentations made on a small scale. Regular offers of distance learning are particularly in the North of Italy (the first small slice), as well as experimentations (the biggest slice) that are mostly carried out in the Centre and in the North even though examples of them can be found here and there across the country. About 28% of Italian universities have never tried any initiative on this matter yet, although they are probably thinking about it and in some years they are likely to start experimenting their own e-Learning too.

The enhanced web-learning is the mostly used by Universities in Italy. It is about the use of multimedia and web technologies to enrich, innovate and develop the effectiveness and quality of a learning model that is still based on traditional classroom training (which is still a necessary requirement in the curricular training).

One of the factors influencing the scarce demand for component parts in the chain of value is to be found in the approach to e-Learning usually taken by Universities.

As a matter of fact, in most of the cases, there are singular initiatives made by professors who are willing to develop e-Learning, even though they have no actual support from central authorities. They go on individually, trying hard to face especially financial problems, which are not allowing the adoption of a standard offer available on the market.

As a consequence, about 50% of Universities saying that they do use e-Learning, are actually only using computer supports which are at disposal on-line. So, instead of e-Learning, they are doing "e-reading" activities. Looking at the chain of value of the offer, it's then possible to state that the demand from Universities is usually scarce, completely lacking in services and counselling.

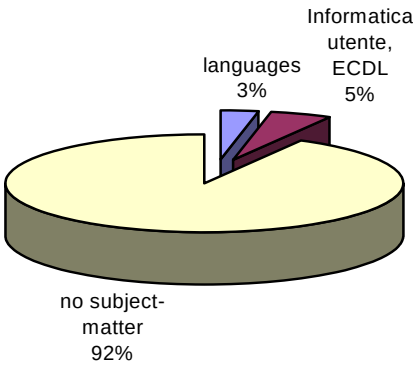


Percentage of Universities buying (Percentages are referred to all Universities doing e-Learning activities). Source: Anee Observatory 2003.

27% of Universities doing e-Learning activities buy technology. This cluster can be subdivided into two different ways of buying platforms: commercial platforms, offered by the main vendors, and open-source.

In the first case (24%) the demand is mainly for platforms such as LearningSpace, BlackBoard, CentraOne, WebCT. Universities taking part in this cluster are mostly in Northern Italy, apart from Florence, and are big realities (more than 60,000 students). In the second case, related to the purchase of open-source platforms, despite its little value (only 3%) is extremely important in perspective terms. Its qualifying aspects are flexibility from one side and feasibility of standard up-dates and maintenance contracts on the other.

Only 8% of Universities doing e-Learning buy contents. The demand is highly concentrated in only two subject-matters. In particular, 5% states to buy *informatica utente* e *ECDL* contents as they are "forced" to by the CRUI e Campus One Directives. The last 3% buys contents about languages.



Percentage of Universities buying contents. Source: Anee Observatory 2003.

The demand: school

Processes aimed at teaching and technological innovation have also been affecting education[20] for a long time, urged by both endogenous and exogenous reasons. The first come from the necessity of an always growing number of teachers of re-thinking teaching methodologies as well as teachers' competences; so as an attempt to reduce the gap existing between methodologies and objectives in compulsory education, from one side, and, from the other side, as an attempt to meet the actual training needs of contemporary society. Exogenous reasons on the contrary come from European directives on the "knowledge society", asking for an updating of the teaching culture about the "new" models of learning and the "new" learning technology – with a particular focus on the teachers' training, as teachers are the key element of the system. The interest is not much on infra-structural and connective aspects, but rather on the quality of products, services and learning setting.

Italian authorities have promptly accepted the Community proposals. At an infra-structural level, it is planned that ICT will receive important financial support in the years 2003-2007 (for technological instruments, schools' cabling, broadband connections) whereas at a process level, initiatives have been planned so as to stimulate a cultural leap of teaching staff and school educational agencies. The goal is that new technology are not to be refused as a problem, nor accepted as a solution but considered as a new opportunity to re-new teaching[21] while re-defining role and competences of teachers.

In particular the Moratti's Reform states, with a financial support of about 90,000,000 Euros in 2002, the following:

- Training for thousands of public workers on different subject-matters through blended methods;
- Hospitals networking to allow students in hospital to attend distance lessons.
- Adoption of technology and methodologies so as to allow students taking part in distance learning activities (e.g. initiatives directed towards mountain areas and islands).

The demand: public administration

Vocational training and professional updating have obviously become essentially important both for central and local PAs[22]. Actually the role of e-Learning in training processes is almost marginalized. Training is a widespread phenomenon, involving every category of PA workers. This situation could encourage a strong potentiality of development in the sector and in the so far little usage of ICT in training courses – which is usually less than 10%, "computer laboratory" included. Managers, who are not easily able to link traditional training with their jobs, could take particularly advantage of e-Learning courses.

Referring to e-Learning alone, the percentage of learning hours for PAs' personnel is less than 1%[23] at the moment. In particular, ICT is still partly unexploited and at the same time acts as an instrument and a stimulus to plan and carry out training activities.

In addition, the Ministry for Innovation and Technology last year pointed towards the goal of 30% to be reached by e-Learning inside the PA training, within the end of 2004, whereas only in 2002 e-Learning was a little more than 1%. Also the Department for Public Function is involved in innovating e-Learning tools and methods through its "Project of Computer Literacy" restricted by now to some pilot areas, but aimed at progressively involving more than a million of public workers (Anee, 2003).

Public Administration is focusing its strategies according to the same objective as the European Action Plan "E-Europe 2005" about e-government, e-health, e-business and of course e-Learning.In fact from a legal point of view[24], an important step has been taken by the Frattini's Directive on training for PAs as well as the most recent Moratti-Stanca's decree stating the learning and technological requirements that are necessary to officially recognize distance university degrees.

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20 Cfr. Marucci G. (2001). *Multimedialità e reti di scuole nell'autonomia - teorie ed esperienze*. Armando Ed.

21 Musumeci A. (2004). La scuola cresce grazie all'e-learning. *E-Learning & Knowledge management*, n. 1, pp. 43-45.

22 Crudele, M., Franzese, A., Gugliandolo G. (2004). E-learning per la pubblica amministrazione. *E-Learning & Knowledge management*, n. 2, pp. 22-25. Cfr. anche AA. VV. (2004). Vademecum to plan e-learning projects for PA, by Cnipa, downloadable at: http://www.cnipa.gov.it/site/_contentfiles/01377500/1377508_cnipa_quaderno_2.pdf.

23 A similar percentage can be found in the Health sector (Anee-Assinform 2004).

24 AA. VV. (2004). Le principali tappe legislative e non, in ambito e-learning. *E-Learning and Knowledge management*, n. 1, pp. 24-26.

Portugal

Data Sources

In order to understand the policies of e-Learning in Portugal as well as its evolution and present situation we made a documental analysis and conducted three interviews with experts in the e-Learning field.

- Specialised documentation and websites
- Interview with three experts, a Professor from the Education Department of the Minho University, the president of an e-Learning provider company and a former coordinator of ICT projects at the Ministry of Education.
- National studies and reports
- Government plans of action

Definition of e-Learning

In Portugal, the glossary of a governmental website dedicated to Internet related issues[25] defines e-Learning as "a system of distance learning that involves the usage of a specific kind of application with that purpose and allows for interactivity between the teacher and the students, facilitating communication, document exchange and test making."

IQF[26] (Instituto para a Qualidade na Formação) is a public institution that regulates and evaluates the quality of training in Portugal. They have several publications[27] about e-Learning and related issues and some of them present definitions of e-Learning that we may also consider somehow official. Those definitions agree on the point that e-Learning is a modality of Distance Learning that takes place on the Internet. If e-Learning is combined with classroom training then it is called blended learning (b-Learning) and mobile learning (m-Learning) is the name given to the e-Learning that involves the use of mobile devices such as PDAs, laptops or cellular phones.

The interviewed Portuguese experts converge on the opinion that e-Learning is an interactive and collaborative learning process supported by Internet based environments.

The laws[28] that regulate Distance Training in Portugal doesn't make direct reference to the concept of e-Learning but describes Distance Training as a training method with little presential intervention of the instructor that uses diverse didactic resources, including printed, audio, video and computer based or multimedia aiming the acquisition of knowledge as well as the evaluation of the trainee. The same decrees establish that Distance Training comprehends both distance tutoring and presential sessions (what we previously called blended learning). The decrees assume two kinds of distance tutoring: synchronous and asynchronous.

25 http://www.internet.gov.pt/

26 http://www.inofor.pt

27 Carneiro, Roberto (Coord.) (2003) A Evolução do e-Learning em Portugal, INOFOR, Lisboa.
Baptista, Carina and Dias, Ana (Coords.) (2002) e-Learning – O Papel dos Sistemas de Gestão da Aprendizagem na Europa, INOFOR, Lisboa.

28 Despacho nº17 035/2001 de 14 de Agosto and Despacho conjunto nº 609/2003 de 22 de Maio.

The Situation of e-Learning in Portugal

The situation of e-Learning in Portugal suffers from fragilities that come partly from specific factors and partly from more general and contextual factors.

- Portugal has one of the lowest Internet penetration rates when compared with the European mean and those values are particularly related to significant levels of info-exclusion in the population ageing more than 25 and with schooling levels under the 9th grade, which represent about 5 million people whose ages range from 25 to 74;
- There is a very low penetration of personal computers at the homes;
- The national telecommunication market is not very competitive in respect to the offer of broadband;
- The prices of broadband Internet access are only competitive for low traffic rates (the most used offers have strong restrictions to international traffic);
- The citizens that use the Internet mostly use it for very basic services such as e-mail and don't recognize many other benefits on the use of ICT;
- Just a minority of citizens uses electronic commerce;
- The use of the Internet for the relationship of citizens with the public administration is only significant at the level of fiscal administration (tax declaration mostly), while for the majority of the other services it involves only the consultation of information.

These factors constitute a difficult scenario for the development of e-Learning.

In 2002, the Portuguese Catholic University together with the INOFOR (now known as IQF) conducted a research[29] about the situation of e-Learning in Portugal. This study reports that only 11% of the organisations that participated in the study had some kind of e-Learning project and all of them were big organisations. The three major obstacles to the e-Learning implementation that respondents point out are:

- The fact that e-Learning is not seen as a priority of investment
- The fact that presential training responds effectively to the existing needs
- The lack of an organizational culture that promotes e-Learning

From these data we may assume that the main obstacles have a cultural nature.

The experts that we interviewed also identified an obstacle that emerges from the lack of specific skills from the agents.

The e-Learning modality implies a significant degree of autonomy of the trainee in the process of knowledge building, both individually and in group. It also implies a tutor with specific skills on the management and support of the on-line learning. Both prerequisites are not yet generalized.

The commercial perspective associated to e-Learning favoured the growth of a severe constraint, especially with the introduction of the concept of "learning objects" as knowledge structures reusable in new training configurations. This view made difficult the development of e-Learning on the framework of the contextual and constructivist educational approaches and limited e-Learning to the minimalist development of Learning Management Systems that end up being objects separated from the contexts of practice, less effective and less adequate to the real educational and training needs.

So, from the beneficiaries' side we see little receptivity to e-Learning, partly because of cultural factors and partly because of lack of perceived adequacy and usefulness.

29 Carneiro, Roberto (Coord.) (2003) A Evolução do e-Learning em Portugal, INOFOR, Lisboa.

From the offer side the figures are not more encouraging. In 2004 only 36 of the 1593 entities certified by IQF were specifically certified for the development of distance training activities. This means that training entities haven't shown interest in adopting e-Learning methods. This lack of interest may be related to the assumption that the marked is not very receptive either and to the perception that e-Learning requires (from the learners) ICT skills that are not yet widespread in the Portuguese population.

Policies for e-Learning in Portugal

There are three ministries and several public institutes that have some involvement with e-Learning policies.

The Ministry of Education has traditionally been the one to promote distance learning (through TV) since the 70s and educational technologies since the 80s. Since then, this ministry has been creating some of the conditions for the emergence of e-Learning both by equipping schools with computers and by training teachers with the basic ICT skills. The most recent and visible contributions of this ministry to e-Learning are:

- The development of a digital resource bank for primary school teachers;
- The equipment of schools with computers and the creation of ICT labs in schools;
- The reinforcement of the ICT component in the Continuous Training of Teachers;
- The launching of the ALFANET[30] teachers' network;
- The promotion of the ICT subject in the educational curricula as a way of increasing the usage of computers in schools;
- Launching training courses for teachers through e-Learning;
- The creation of an education portal with internal and external communication tools as well as pedagogical and curricular support for teachers.

The Ministry of Science, Technology and Higher Education has also played a very important role on the creation of the conditions for the development of e-Learning. In the early 90s it launched a programme called "Internet nas Escolas" (Internet in the Schools) that resulted in the connection of all schools and universities to the Internet. Many other initiatives related to the integrated development of the Information and Knowledge Society in Portugal created the basis for the emergence of e-Learning.

Some important steps were taken from 1996 to 1999:

- The creation of the Mission for the Information Society;
- The creation of the Network for Science, Technology and Society (RCTS);
- The launch of the Programme Digital Cities;
- The approval of fiscal benefits that encouraged the acquisition of computers, software and Internet access at home;
- The National Initiative for Citizens with Special Needs on the Information Society.

Since 1999:

- Under the scope of the Operational Programme for the Information Society (POSI) it was launched a public call for tenders for the generalization of the Digital Cities Programme;
- Also under the scope of POSI the first public points of Internet access were created (they still are one of the most important means of Internet access in Portugal);
- The approval of the law that created the Diploma of Basic Competences in ICT;

30 http://www.dgidc.min-edu.pt/alfanet/default_Professores.htm

- The Inter-ministries Commission for the Information Society launched a contest for the evaluation of governmental and other public websites, especially schools.
- The establishment of the Unidade de Missão Inovação Conhecimento (UMIC) to define the Information Society and e-Government policies in Portugal.

The Ministry of Work and Social Welfare is also in charge of the vocational and professional training in Portugal. It certifies professional competences in different areas including those of the professionals that work in vocational and professional training. Since the 80s this ministry encourages the acquisition of ICT competences by those professionals and more recently this encouragement was extended to the introduction of e-Learning practices.

This ministry influences e-Learning through regulation, certification and incentives and for those tasks counts with two institutes that play a major role on the training side of e-Learning: IQF and IEFP.

IQF - Institute for the Quality of Training (Ex-INOFOR) aims to contribute for the effectiveness of the training in Portugal, producing and disseminating specialized information and resources.

This institute is the national institution in charge of certifying the training entities, including those that propose to do distance training. By this means it contributes for the quality of e-Learning in Portugal.

IQF also dynamizes the CRC Network (Knowledge Resource Centres) and manages a Virtual CRC. It publishes not only the review "Nova Formação" that covers many issues related to e-Learning but also edits several publications and studies about e-Learning. It also promotes several events intended to support and disseminate e-Learning projects.

IEFP – Institute of Employment and Professional Training is the one in charge of executing the policies of employment and training defined and approved by the government. Its headquarters are placed in Lisbon but it counts with 5 regional delegations, 86 Employment Centres, 31 Training Centres, 1 Centre for Professional Rehabilitation and 8 Centres of Support to the Creation of Enterprises.

This institute regulates the and validates the training offer, including those courses that involve distance training, which means that this is the national institution that tries to ensure the e-Learning quality by specifying and verifying the norms that certified courses must follow. This institute also plays an important role on the reinforcement of the ICT training of qualified professionals, its Centres of Professional Training lead some e-Learning projects as well as employment and training programmes highly supported on digital resources.

The Portuguese government assumed a commitment for 2010 that involve the following goals in terms of Information Society[31]:

a) Infrastructures and accesses:
- Duplicate the number of regular Internet users, which should be more than 60% of the Portuguese population (in 2004 it was 25% in Portugal and 41% in the EU15);
- Triple the number of families with broadband connections to the Internet to more than 50% (in 2004 it was 17%);
- Multiply the number of computers in schools with the purpose of getting a mean proportion of 1 computer per 5 students;

31 Source "Ligar Portugal" at http://www.ligarportugal.pt/

- Ensure that the price of the services of broadband permanent access to Internet used by the majority of the Portuguese population should be among the three lowest of the EU, including the unlimited traffic and the signature of phone line;

b) Creation of jobs, economic development and social appropriation:
- Increase the employment on the ICT sector to 3% of the total employment (meaning 44000 new jobs);
- Increase the percentage of workers that use computers connected to the Internet to no less than 40% (in 2004 it was 19%);
- Increase the regular usage of electronic commerce to no less than 25% of the population (in 2004 it was 3%);
- Ensure the on-line availability of all the basic public services;

The focus on the education and learning is expressed on the following goals:
- Open the school environment, providing virtual environments for students, documents of support in digital format and systems that allow parents and teachers to follow students and to participate in national and international cooperation projects;
- Generalize the usage of the individual electronic portfolio of the student that completes the compulsory schooling, where all the relevant assignments in different areas are registered, demonstrating the effective use of ICT on the several issues.

Some experts are sceptical about several aspects of the application of declared policies. The compulsory inclusion of an ICT subject in the curricula is the recognition of the importance of the ICT skills for the Portuguese population but it can also mean the exclusion of ICT from the activities of the other subjects, which means a significant loss in educational innovation. So there is a risk that e-Learning practices are restricted to this ICT subject instead of spreading to other subjects and become generalized.

There are fundamental questions that deserve our attention like the development of teaching and learning models for on-line environments, the flexibility of the on-line learning processes, the management and tracking of the on-line learning, its evaluation and the development of competences of e-tutors.

So, according to those experts, the political agenda should address more attention to development of the basic skills of the managers and users of the on-line education and training.

The legal framework that regulates both certification of training entities and distance learning courses may also constraint the development of adequate e-Learning solutions. For example, to be certified for distance training, an entity must possess a Learning Management System. This means that there is an assumption that e-Learning must involve the use of such a tool. We know that tools are both facilitators to some processes and constraints to other processes, so by creating this requirement we are directing and limiting the pedagogical approach of the training entities. Another example is the legal requirement that distance training courses must have presential activities and those must not correspond to more than 25% of the entire course duration. This seems to be a rule that applies indifferently from the context, from the beneficiaries as well as from the nature of the learning objectives and contents. This is the kind of rule that compromises the pedagogical effectiveness of e-Learning by dramatically reducing the necessary flexibility.

Spain

Data Sources

The data about the situation and policies of e-Learning in France was gathered from:

- Specialised publications and websites
- Experts directly interviewed
- National and European reports

Some reference publications used:

- Estudio de demanda y expectativas del mercado de eLearning en España 2004. Santillana Formación, 2004.
- Informe de elearning 2003. Consultoría Tatum.
- V edición panel anual resultados 2005. elearning en las grandes empresas, grupo doxa.
- "El despegue del e-learning" - David Segarra, diario el País, Jueves 4 de diciembre del 2003.
- "Internet como vehículo didáctico" Ginés Donaire, diario el País, lunes 4 de octubre de 2004.
- "E-learning, una formación en pañales", Magda. R. Brox, el País, lunes 19 de noviembre de 2001.
- "La tecnología elearning avanza más deprisa que su mercado", Alfred Comín, el País, jueves 12 de septiembre de 2002.
- "E-learning : las mejores prácticas en España", Pelegrín Fernández-Lopéz, Carlos, Pearson Educación, S.A.
- "El e-learning en España", García Manzanedo, Javier, Fundación escuela de organización industrial.
- "Educación virtual y e-learning", Ruipérez García, Germán, Fundación Auna.

The Situation of e-Learning in Spain

Many studies and analyses confirm a constant growth of e-Learning in the training offer of the corporative market.

Some marketing consultancy companies like IDC ranks the Spanish market as one of those that grow faster in Europe, with an interannual rate superior to 30%, whereas other estimations locate it nearer to 40%.

This context makes more and more necessary an in depth study of the experiences and perceptions that organizations and users have when making e-Learning based training, because the knowledge that we have about the main dimensions of the market do not correspond to what we know about the consumers.

From our research we concluded that:

- Taking advantage of the ICT benefits in the training plans is still a pending task for the Spanish organizations;
- The benefits of on-line training most commonly perceived by users and organizations are commodity, flexibility and accessibility;
- The most commonly perceived obstacles are lack of time, technological barriers and poor quality of on-line training contents;
- The good practices and the market trust on the solutions will be the factors of success of the future programmes that use ICT.

During the first period of on-line training experiences in the organizations the investment is usually made on cross-sectional subjects like office-computing and English. Next comes the training for skills acquisition and the subjects are more specific (finance, commercial...). Once the first experiences are well succeeded the tendency is to invest on the development of customized courses.

We forecast the future integration of skill development programmes with the development of full professional paths as an additional channel to the structures of Human Resources.

When it comes to evaluate the training offer in general the quality of service is considered as more important than the content but concerning the e-Learning actions the contents and the tutorship assume a major importance. This happens because users are suspicious about the new channel and because it is harder to redirect an on-line action if the content is not the adequate.

When asked about the future evolution of the on-line training the organizations highlight three directive axes that are:

- the development of competences;
- the effectiveness in terms of conclusion and satisfaction;
- the integration in traditional models (blended learning).

The organizations tend to shorten the duration of the on-line courses, aware that the dedicated time is not programmed and the worker must take it from the free time or from the working time.

In conclusion, the usage of e-Learning as a training tool is beginning to consolidate in Spain inside the big companies and institutions. Those organizations are the ones that have the motivation and the human resources familiarized with the ICT that are needed to quickly implement training programmes that benefit from the new environments. We also can observe initiatives of smaller size and scope promoted by small and medium enterprises, confederations and other entrepreneurial associations.

The integration of the on-line training in the big Spanish companies is expressed on the 80% of interviewed companies that declared some kind of e-Learning experience, although 25% of them are pilot experiences. All these data talk about a developing market where the first steps were already taken and the normalization of the ICT role in training is still going on.

The existing training that incorporates e-Learning in the Spanish organizations is mainly cross-sectional and dominated by areas such as office-computing and other ICT.

The primacy of this kind of content is similar to the tendencies observed in more advanced markets and it's easily explainable through the number of professionals that can use this kind of training in the companies, which significantly reduces the costs per learner and consequently reduces the financial risk.

On the other hand the usage of e-Learning allows training in office-computing to use the same working environment that learners will face. This makes office-computing a privileged candidate subject for the first experiences of e-Learning. As the on-line training initiatives become mature other subjects, such as languages and interpersonal skills, are introduced. In a later stage companies invest in customized e-Learning solutions that may be specific for a certain industry of even for a certain organization.

The main advantages of e-Learning pointed by organizations are training commodity, flexibility and accessibility.

The flexibility, the possibility of accessing training that cannot be accessed in presence, the economization of the dislocation time and the adaptation of contents to the personal needs are the main advantages perceived by users of on-line content. They also highlight the importance of the quality of service and the assistance (specially the quality of the tutoring) when making e-Learning courses. Factors like the learning contents and the technologies receive 15% of the votes each.

However 60% of the users declare that e-Learning brings little or no improvement to the quality of their work, which conduces to the conclusion that the practical contribution and the orientation for results are still a training imperative that on-line approaches have not yet fully answered.

Learners mention time availability as one of the main obstacles when it comes to get involved in on-line training. The time to be dedicated to the on-line training is often stolen from the workers' free time. This shows some kind of discrimination against e-Learning because presential training has its own time and location ensured.

Other obstacles pointed by the on-line learners are:

- The employability of the courses;
- The technological resources (lack of knowledge about the means or limited hardware and software conditions at the job);
- The interest of the contents;
- The absence of tutorship;
- The poor applicability of some contents.

In the sequence of those individual obstacles the main improvements suggested by the on-line learners are:

- Contents should be more adapted, updated, applicable and better quality;
- Tutoring should be closer, accessible and collaborative;
- Practical exercises should be closer to the real thing and involve practical application (learners appreciate reminders with practical recommendations);
- Technological resources should be improved inclusively in their usability.

The systems that evaluate and measure the effectiveness of the e-Learning actions are still not well developed in the Spanish organizations. However there are some initiatives oriented to the implementation of more advanced systems. In many other situations the evaluation systems used in presential training are just transferred for e-Learning evaluation, but they result insufficient in view of the new possibilities offered by on-line training.

Some institutions start to see training not only as a means of rewarding and motivating professionals but also as a strategic investment to improve the effectiveness and the results of their activities. However this new vision is still minority and we believe that this reality is cross-sectional to all modalities of training. The dominating system used on the evaluation of training actions that incorporates on-line contents or on-line activities is to inquire the learners about their satisfaction with the course, which is far from other systems oriented for the organizational improvement such as the applicability of the acquired knowledge and skills.

In general, most interviews show that the evaluation and monitoring systems allowed by the on-line training are little used and, without many exceptions, many organizations limit their evaluations to the monitoring of one or two basic parameters.

It is interesting to verify that a fifth of the interviewed organizations start imposing monitoring and evaluation systems based on the applicability of the learned subjects and on the level 3 and 4 models, that means to evaluate the impact of the learning subjects on the learners' behaviour at the job (level 3) or on the indicators of effectiveness of the organization activity (level 4).

The data show that on-line training in Spain tend to grow and the future of training involves e-Learning as one more channel to be integrated with the other existing ones. The tendency is for this kind of solution to be progressively accepted by the big companies and institutions in Spain.

Some data also make believe that this market growth will be slower than the initially expected and the reasons are:

- The responses show that there is still a conception of e-Learning as a technological solution and not as a training solution and, towards the technological solutions there is the belief that a later start helps to avoid the pioneering mistakes. It is possible that many organizations extend the testing or experimental periods of this training model, waiting for "stories of success" in the national market that clearly show the way to be followed.
- There are difficulties of co-existence between the traditional structures of human resources and the new learning models. In many organizations this tension comes from the perception of e-Learning as a threat to the presential training that has been until now the traditional model in the institutions. Another threat is the set of new competences that is required to be committed and to manage the scope of training programmes based on the integration of multiple channels.
- All the responses show the increasing relevance and the growth of the e-Learning as a training modality but there is an important group of institutions (superior to 50%) that sees e-Learning as a growing modality yet not very relevant at the present time.

Policies for e-Learning in Spain

The e-Learning policies in Spain are defined and implemented by the Ministry of Education and Science where two centres have a very important role: CIDEAD and CNICE.

CIDEAD[32] - Centro para la Innovación y Desarrollo de la Educación a Distancia

The Centre for the Innovation and the Development of Distance Education (CIDEAD) was integrated in the Centro Nacional de Información y Comunicación Educativa (National Centre for the Educational Information and Communication) by the decree R.D. 1.331/2000 of the 7th of July and has the function of coordinating and organizing the elements and processes of the Distance Education, as well as facilitating the access to education for adults and students in school age that, for personal, social, geographical or other reasons couldn't be able to proceed studying in the regular presential schooling (R.D. 1.180/1992 of the 2nd of October).

So this works on the production, direction and coordination of didactic resources and academic orientation and gives response to the needs of those who cannot attend classes and wish for an academic instruction. It also tries to respond to the educational requirements posed by a continuously evolving society that assumes education as a lifelong constant.

The CIDEAD offers distance courses for Primary School education, Compulsory Secondary Schooling, ESPAD and Bachelorship and also Professional Training and Official Language Instruction. The method is an open and flexible education system that counts with complete and complex curricular adaptations, new modular systems and innovative systems of evaluation. All these features combined with the effort in terms of technological innovation result in productions such as "That's English!" for the learning of English language, multimedia resources of support, contents and reinforcement, in brief, the comprehensive management of the on-line instruction that also includes the updating of the tutors that give shape to this ICT-based educational modality.

32 http://cidead.cnice.mec.es/

CNICE[33] – Centro Nacional de Información y Comunicación Educativa

Institutional Actions:

- AULA MENTOR – Aula Mentor is an Internet-based open system learning promoted by CNICE (the National Centre for the Educational Information and Communication of the Ministry of Education and Science) in collaboration with a wide number of institutions (Ministries, Autonomous Communities, Educational Centres, local authorities and Non-governmental Organizations) that assure great flexibility in learning as well as a close and direct attention to the student.
- ALDEA DIGITAL – Information society in the rural schools.
- AULAS HOSPITALARIAS - The Programa de Nuevas Tecnologías de la Información y la Comunicación (Programme of New Information and Communication Technologies) has the function of implementing and evaluating the progressive introduction of the ICT in the educational system, experimenting emerging developments to satisfy different needs on the fields of education and training. Generate innovation is one of its main commitments. It also intervenes in the scope of the scientific and technological investigation, of the industry, and on the different social organizations where the linear models of innovation are being overcome by the networking models, that involve constant and multi directional cooperation and synergies. Nowadays, the knowledge is more and more generated through a new model of social and distributed production and the problem solving is more effective when it is multidimensional. These models of cooperative work, where responsibilities and initiative are shared, can also be suitable to the actual educational needs. For the New Technologies Programme it is inevitable to contribute for the start-up of effective innovation systems in education, incorporating the advantages of the networked cooperative work facilitated by the usage of the telematic tools. When these innovative actions contribute for the inclusion and schooling of hospitalized children all the efforts result very rewarding. On this policy of educational innovation the project "Teleeducación en Aulas Hospitalarias" has the mission of bringing the necessary technical, pedagogical and organizational tools for the creation of a space of learning, communication and support dedicated to the hospitalized students. For that purpose several actions have been made since 1997:
  - Creation of a virtual space over Internet and ISDN, integrated with the educational universe, providing the hospital classes with all the necessary technologies;
  - Training tutors with the basic technological and social skills;
  - Creation of a supporting network facilitating the communication of students with their usual social environment (peers, teachers and family);
  - Training activities over the network.
- ABIES – Programme for the management of school libraries.
- CENTRO VIRTUAL DE FORMACIÓN – project in development.

Cooperation in international projects:

MALTED – Environment for the learning of languages;

OASIS – Open architecture in school environments;

EUN – European Schoolnet, the European network of educational networks;

eTwinning – Twinning of European schools.

33 http://www.cnice.mec.es/

United Kingdom

Data Sources

- Interviews with experts
- Documental analysis
- DfES - Department for Education and Skills (www.dfes.gov.uk)
- JISC – Joint Information Systems Committee (www.jisc.ac.uk)
- RAMIE PROJECT - Research Assessment Methods & Instruments for E-Learning (www-deis.cit.ie/ramie)
- CREATE: Centre for Research in Educational Applications of Technology (www.create-uk.com/)

Definition of e-Learning

In 2002, the UK government's Department for Education and Skills defined e-Learning as: "Learning with the help of information and communication tools. These tools may include the Internet, intranets, wireless working, personal computer-based technologies, handheld computers, interactive TV…electronic whiteboards and video-conferencing".

Differently from many other countries, British education and training professionals don't see e-Learning as a distance learning method, so e-Learning is not the same as on-line learning which seems to be a common view of e-Learning in other countries. In UK, professionals use the expression e-Learning when they want to refer to the use of any kind of ICT in the learning process, including those that are used in the classroom.

The Situation of e-Learning in UK

That is a fact that in UK e-Learning is happening, but it is not fully embedded in the current education delivery (particularly in FE and ACE). It is somehow isolated to pockets of expertise and activity.

There is still a lack of coordination in planning and implementation within and across sectors and it is mostly used to deliver IT training.

Virtually all groups of learners that are using ICT in some way are doing e-Learning. It is used mainly to support other learning which is predominantly delivered by traditional methods, perhaps by word processing documents, using email to correspond with tutors or classmates, or using the internet to search for information.

A lot of this learning is informal, or at least immeasurable, perhaps home or work based and focused on using ICT to search for facts or information.

In Suffolk (where Otley College is located) there are relatively advanced forms of e-learning being currently delivered:

- UFI Learndirect – the learning delivery arm of the University of Industry – are currently probably the biggest players in e-Learning at the moment, within Suffolk and the UK as a whole. About 90% of courses delivered on-line, via a virtual learning environment. Although changing to reflect a greater proportion of economically occupied learners, the majority of enrolments, at least across the board in Suffolk, have been economically inactive or retired. The majority of these learners have been courses related to basic to intermediate ICT skills.
- FE Colleges - present a mixed picture but use VLEs (virtual learning environments) and technology in the classrooms.
- Specialist private sector providers (ITS Training Ltd – Shipping).
- Schools – use VLEs and work with distance learning via for A and AS levels video conferencing.

In terms of purer forms of e-learning, involving the delivery of formal and perhaps qualificatory learning on-line, there is much less activity.

Some barriers to e-Learning were identified in Suffolk:

- Lack of awareness, knowledge, motivation and opportunity among teaching practitioners
- Lack of effective leadership and coordination
- Limited, relevant, learning content
- The costs of implementing e-learning (budgetary constraints)
- The requirements for the further development of e-Learning at a County level are:
- Leadership and coordination
- Skills and knowledge development
- Promotion
- Content (awareness and access)
- Infrastructure (premises/hardware/connectivity)
- Funding

The Suffolk E-Learning Service is an example of the kind of initiatives that happen in UK. It was funded Funded by the Suffolk LSC from ESF funds granted for a period of 18 months (from November 2005 to April 2007). The operational management is done by CREATE[34] at Suffolk College. Its mission is to support all institutions and agencies working in the post-16 education sphere in Suffolk with an interest in implementing or improving their e-Learning by:

- Promoting e-Learning opportunities;
- Tackling the lack of awareness and knowledge among teaching practitioners;
- Encouraging coordination;
- Facilitating and procuring expert guidance.

In practical terms the Suffolk E-Learning Service will:

- Facilitate and organise training, conference and demonstration events;
- Develop special interest groups (based around e-learning themes);
- Develop a directory of learning materials, providers and advice services;

Its current, initial, activities are:

34 CREATE (Centre for Research into the Educational Applications of Technology) is externally-funded, focussed on project-based action research and consultancy and has expertise and interests on e-Learning and on economic development (local and regional issues).

- Developing website with signposting to e-learning content and advice;
- Working with institutional and sector partners to determine principal knowledge and training needs;
- Developing relationships with main advisory services for e-learning JISC, BECTA, NIACE;
- Developing programme of training and awareness raising events.

The challenges to be faced by this kind of initiative are:

- To secure the engagement of target audience;
- To provide services which meet the needs of a varied constituency of education providers and teaching practitioners;
- To encourage cooperation and coordination across institutional boundaries.

JISC (Joint Information Systems Committee) was established in 2000 to support the Further Education sector. Expanded its role in 2003 to support small Higher Education institutions, specialist colleges and Adult and Community Learning (ACL). It supplies Support for Curriculum, Learning Resources, Technical, Strategy & Management.

JISC is presently constituted by 13 Regional Support Centres (RSC): East Midlands, Eastern[35], London, North West, Northern, South East, South West, West Midlands, Yorkshire & Humber, Northern Ireland, Scotland North & East, Scotland South & West and Wales.

The RSC - Eastern supports:

- The Eastern Region – 6 counties
- 34 FE Colleges
- 3 Small HEIs
- 2 Specialist Colleges
- 10 ACLs

It offers:

- Curriculum Support - Getting the best out of technology; Advice on VLEs; in house staff development; training events, Information skills;
- Technical Support - JANET support; Network analysis;
- Management Support - Strategic Advice; Freedom Of Information; Records Management; Staff Development;
- Resources Support - JISC Collections; non-JISC on-line resources; Athens training; Library Management Systems.

That support is delivered through:

- Site visits
- Forums
- Workshops
- Conferences
- JISCmail lists
- e-bulletins and newsletters
- the Website (http://www.rsc-eastern.ac.uk)

35 Otley College is in Suffolk, Eastern Region.

Policies for e-Learning in UK

ICT are clearly stated on the government's National Agenda for education.

On 15 March 2005, the Department for Education and Skills published a document establishing the e-Strategy 'Harnessing Technology: Transforming learning and children's services'.[36]

This strategy describes the use of digital and interactive technologies to achieve a more personalised approach within all areas of education and children's services. It is an ambitious strategy covering all sectors for the next five years and beyond.

The strategy sets out to achieve four overarching objectives:

- transforming teaching, learning and child development, enabling children and learners of all ages to meet their highest expectations;
- connecting with hard to reach groups in new ways;
- opening up education to partnerships with other organisations;
- moving to a new level of efficiency and effectiveness in our delivery.

It is designed to harness technology to the needs of children, learners, parents, teachers, carers, employers and all stakeholders.

The e-Strategy also has the following six priorities:

- Priority 1 - An integrated on-line information service for all citizens
- Priority 2 - Integrated on-line personal support for children and learners
- Priority 3 - A collaborative approach to transforming teaching and learning
- Priority 4 - A good quality training and support package for practitioners
- Priority 5 - A leadership and development package for organisational capability in ICT
- Priority 6 - A common digital infrastructure to support transformation and reform

To help the DFES on the implementation of this strategy there are some key partners at different levels.[37]

Strategic ICT

BECTA (www.becta.org.uk)

The British Educational Communications and Technology Agency is the Government's lead partner in the strategic development and delivery of the e-strategy in the schools and the learning and skills sectors. It has four main roles. It will provide coordination and support for the implementation and running of the e-strategy. It will provide strategic advice to help shape the e-strategy and renew it. It will support the strategy and its partners by providing insight into the developing use of ICT based on evidence and an understanding of innovative technologies and practices, and it will be the delivery partner for those actions for which it is best placed.

JISC (www.jisc.ac.uk)

The Joint Information Systems Committee funds innovative development programmes, by members of the

36 http://www.dfes.gov.uk/publications/e-strategy/docs/e-strategy.pdf

37 Descriptions of the institutions are taken from the e-Strategy document « Harnessing Technology: Transforming learning and children's services' »

community using action research. In order to support institutions in ICT to its best advantage, JISC funds: Advisory services on products; Production services, to achieve economies of scale through the provision of national services; and Development services to test the validity of innovations.

eGU (www.e-government.cabinetoffice.gov.uk)

The role of the e-Government Unit is to support the business transformation of Government, including its development of e-learning.

Leadership

NCSL (www.ncsl.org.uk)

The National College for School Leadership provides career-long learning and development opportunities, professional and practical support for England's existing and aspiring school leaders. Their goal is to ensure that school leaders have the skills, recognition, capacity and ambition to transform the school education system into the best in the world. The College places high emphasis on utilising e-learning in all leadership development it sponsors and commissions. It supports heads and other school leaders in strategically leading ICT for school improvement, raising achievement and organisational change.

CEL (www.centreforexcellence.org.uk)

The Centre for Excellence in Leadership has been established to provide leaders and managers within the learning and skills sector with innovative programmes and services to support them in leading their institutions.

LF (www.leadership-he.com)

The Leadership Foundation aims to draw on the best existing programmes and commission new material in order to offer world-class development in leadership governance and management to current and future leaders within higher education institutions.

Learning Workforce

TTA (www.tta.gov.uk)

The purpose of the Teacher Training Agency is to raise standards by attracting able and committed people to teaching and by improving the quality of training for teachers and the wider school workforce. The Agency has recently been given the responsibility for teachers' continuing professional development and the development of standards for the whole school workforce.

SST (www.specialistschools.org.uk)

The Specialist Schools Trust is the lead body for the Government's specialist schools programme. It seeks to give more young people access to a good secondary education by building networks, sharing best practice and supporting schools.

NESTA Futurelab (www.nestafuturelab.org)

By bringing together the creative, technical and educational communities, NESTA Futurelab is pioneering ways of using new technologies to transform the learning experience by: supporting emerging innovative e-learning and selected projects; encouraging new pedagogies; brokering partnerships and showcasing

developments helping shape the e-learning market and taking assessment forwards.

LSDA (www.lsda.org.uk)

The Learning and Skills Development Agency's mission is to improve the quality of post-16 education and training in England, Wales and Northern Ireland. It does this through research to inform policy and practice, through helping to shape and communicate education policy and through improvement and support programmes for organisations that deliver post-16 education and training.

LLUK (www.lifelonglearning.co.uk)

Lifelong Learning UK is the Sector Skills Council for the post-16 training and education sector workforce. It has been established by the sector's employers to lead the professional development of all those who work in the field of lifelong learning. LLUK will have a key role in reviewing and developing occupational and professional standards, and identifying the training and development needed to deliver the skills for the future.

NIACE (www.niace.org.uk)

The National Institute of Adult Continuing Education works to encourage more and different adults to engage in learning of all kinds. NIACE's aim is to improve opportunities for adult learners across all sectors, with a particular focus on those adults who have not had successful access to education and training in their initial education.

e-Skills UK (www.e-skills.com)

e-skills UK is a not-for profit, employer-led organisation, licensed by government as the Sector Skills Council for IT, Telecoms and Contact Centres. It is also responsible for cross sector IT User Skills and a programme aimed at improving the 'e-skills' of the UK at large on behalf of the Skills for Business Network. e-skills UK is committed to taking practical steps to help employers develop the skills they need to improve business performance. They do this by providing employer-defined skills frameworks, a range of innovative services and programmes for skills development, and information on sources of training and funding. e-skills UK enables employers to make a real influence on the UK's skills strategy and infrastructure.

UFI (www.ufi.com)

UFI is the organisation responsible for learndirect-advice – the national learning advice service and learndirect/UK on-line – the national supported e-learning and e-services network. UFI aims to improve national productivity by providing widespread access to world class learning and e-services. Its role in supporting the strategy is to be a technologically innovative and entrepreneurial force in the improvement of skills for work.

HEA (www.heacademy.ac.uk)

The Higher Education Academy helps foster the development of a higher education sector accessible to all potential students and which is recognised internationally for the high quality of teaching, learning and research and has the capacity to address the changing needs and challenges in our society.

Inspection and QA

OfSTED (www.ofsted.gov.uk)

The Office for Standards in Education is a non-ministerial government department. Its role includes responsibility for the inspection of all schools in England. From September 2005 regular school inspections will be much shorter than previously. A detailed evaluation of ICT, including e-learning, will take place alongside this in a sample of schools.

ALI (www.ali.gov.uk)

The Adult Learning Inspectorate is a government funded body responsible for raising the standards of education and training for young people and adults in England, by inspecting and reporting on the quality of learning provision they receive.

QAA (www.qaa.ac.uk)

Through its audits and reviews of the management of quality and standards in higher education, the Quality Assurance Agency will monitor institutional strategies for the use of ICT to support flexible learning opportunities for UK and international provision, using its Code of Practice on collaborative provision and flexible and distributed learning (including e-learning) as a particular point of reference.

Funding Bodies

LSC (www.lsc.gov.uk)

The Learning and Skills Council exists to make England better skilled and more competitive. The LSC will provide strategic policy and implementation of the e-strategy through the joint leadership of the post-16 e-Learning Policy and Project Board (EPB). The LSC will have a commissioning function to determine appropriate procurement strategies for projects and services to deliver the post-16 elements of the strategy. They will also take responsibility for project monitoring and contract management.

HEFCE (www.hefce.ac.uk)

Working in partnership the Higher Education Funding Council for England promotes and funds high-quality, cost-effective teaching and research, meeting the diverse needs of students, the economy and society.

Qualifications, curriculum and assessment

QCA (www.qca.org.uk)

The Qualifications and Curriculum Authority is responsible for modernising the curriculum and examinations to meet the needs of learners in the 21st century. QCA will modernise the national curriculum and its assessment, and will implement its new regulatory approach to lead awarding bodies and educational providers in using technology to improve the quality, relevance and reliability of learning, curriculum and assessment services provided to learners.

Technology Infrastructure

UKERNA (www.ukerna.ac.uk)

The United Kingdom Education and Research Networking Association operates the networking programme of the education, learning and research communities in the UK (JANET). It researches, develops and provides advanced electronic communication facilities for use within these communities, and with external third parties. Successful implementation of the Government's agenda for raising educational standards involves the general deployment of broadband Internet access with low barriers to entry throughout the UK.

BSI (www.bsonline.techindex.co.uk)

The British Standards Institute was the first national standards-making body in the world. Independent of government, BSI is a non-profit distributing organisation. It is globally recognised as an independent and impartial body serving both the private and public sectors, working with manufacturing and service industries, businesses and governments to facilitate the production of British, European and International Standards.

Other key partner organisations

Awarding bodies

Advisory, Admissions and Information services and organisations

Broadcasting and media organisations

Children's Workforce Development Council

Digital content industry groups

Educational publishing industry groups

Employer organisations

ICT infrastructure industry groups

Local Authorities/Directors of Children's Services/Local Education Authorities

Library and Information Science groups

Other Government Departments and their agencies with e-programmes

Partners contracted to the Department for the delivery of National Strategies

Trade Unions and Professional Associations

Regional bodies, linked to the Department

Research Councils

Subject Associations

University research groups with a focus on e-learning and related disciplines

Voluntary and Community Organisations

Comparative Analysis

By the end of this first study we had opportunity to share and to compare the collected data and we learned a lot from the identified differences.

The differences start at the conceptual level. E-Learning is an Anglo-Saxon expression for "Electronic Learning". Perhaps for that reason, in United Kingdom, the concept of e-Learning is understood as the general usage of ICT in the teaching and learning processes while in other countries e-Learning is associated with the use of Internet for the implementation of learning processes that occur mainly at distance. In that sense e-Learning would stand for conventional learning just the way e-mail stands for conventional mail.

The expression e-Learning is not equally disseminated in the different countries of the SLIDE partnership. For example in France the expression Open and Distance Learning is much more used and corresponds to a mixed and flexible approach that combines both distance and presential methods. A similar concept is the one used in Iceland, known as Distributed Learning. It also represents a flexible modality that involves both distance activities and classroom activities and makes usage of electronic media.

This kind of open and flexible approach is called Blended Learning in countries such as Portugal, Italy or Spain. Those countries of Latin languages adopted the Anglo-Saxon designation of e-Learning and have progressively been replacing the expression "Distance Learning" (that exists in the national languages) with this Anglo-Saxon word. To be precise, in those countries, e-Learning is understood as a Distance Learning approach that involves the use of on-line resources and/or activities.

So, even considering just the six countries that take part in this study, we notice that in some countries e-Learning is seen as a very restrict approach while other countries see it in a very broad sense.

When we consider the stricter definition of e-Learning as on-line education and training we find an approach not fully developed yet. All countries seem to follow an evolutionary line that starts with the focus on the infrastructural conditions and progressively turns its attention into the quality of the pedagogical processes. The interesting thing observed is that this evolution is made at different paces by different actors and we are not only considering the differences between countries but also the differences within each country. When we analyse the evolution of different sectors we realize that they are not in the same stage although they are following a similar path.

From the comparative analysis we can identify some common driving forces:

- Need for development
- Need for accessible knowledge and qualifications
- Need for profit and market differentiation

The need for development

The first is the need for development, which is a social, an economical and a political drive and, for that reason it is here that the governments play the leading role as they are in charge of defining and implementing strategies for that development. It doesn't mean that there are no other institutions aware of this need that contribute for the social and economical development of the regions as well as the countries, but when we analyse the situations of each country we see that this task is primarily taken by the governments through the ministries and through other public institutions.

In Iceland we see many ministries playing some kind of role on the implementation of the ICT into the education and training. France has got the involvement of public authorities at the various levels. All the governments created special centres to assume regulating, implementing, supporting or evaluating tasks.

This driving force for e-Learning involves both the infrastructural level and the quality level. At the infrastructural level the governments have shown a special concern with the equipment of the schools with computers and with the establishment of a fast network connecting them to the Internet. At the quality level, governments acted by creating laws and regulations, by promoting the production of resources as well as the training of the teaching staff and by providing guidelines and consultancy to the e-Learning providers.

Our analyses show some insufficiencies at the several levels. In Portugal, many schools complain about the lack of infrastructural conditions as well as the lack of ICT skills by most of the teachers. In Iceland, the students' complains are related to the excessive and insensitive usage of the ICT which provides evidence about the maturity that comes after a previous period of technological fascination. France has a considerable number of Distance Training Points but they seem to be insufficiently distributed. British seem to be not very happy about the lack of coordination and planning within and across sectors. Portuguese training companies complain that the governmental regulations are so context-insensitive that instead of promoting the quality they restrain it.

So it seems that there is still a lot to be done at all these levels.

The need for accessible knowledge and qualifications

This need comes from the consumers in a broader sense. We are talking about children, youngsters and adults that have the need for education. We are talking about employed and unemployed individuals that need to improve their qualifications and skills. We are talking about companies and other organizations that need knowledge and more efficient practices.

Those are the demanding forces that also have an important role on pushing the market ahead, on selecting the best practices and on providing evidence about the strengths and weaknesses of the educational and training approaches, namely those that are new and innovative.

On this point we found some insufficiencies too. There is the need for accessible knowledge and qualifications but the accessibility is still a problem in many places. The low tax of penetration of the ICT and Internet at the people's homes and at the smaller organizations makes the e-Learning market considerably small. This is a problem particularly serious in Portugal, Spain and France.

Governments sometimes present some initiatives on this area in order to make technologies more accessible to people. Sometimes they even create some need for those technologies since the public, very often, shows little motivation to use them.

All the initiatives that contribute for the creation of a quality-demanding ICT-skilled public and for the improvement of the accessibility to the Internet (including price) are very welcome. As we can see from the Icelandic students, the demand can be a powerful driving force for the growth of e-Learning. Perhaps the strongest.

The need for profit and market differentiation

The need for profit and market differentiation is a driving force faces by all the training providers and some of the educational providers too. It is important to highlight that e-Learning has been seen since its appearance as a training solution very interesting from the economical perspective. Its flexibility in relation to time and place, the nature of its contents and resources, all these factors enclosed some promise of lowering the costs of training and reaching a wider market.

We now know that most of these promises weren't fulfilled, partly because of the small size of the market, partly because of the market attitudes and still partly because high-quality e-Learning solutions are not affordable yet. So, the e-Learning providers slowed down a little bit their excitement and some of this driving force became not so strong.

Anyway we must be aware that an important part of this problem is responsibility from the providers themselves. The small and relatively slow penetration of the e-Learning on the education and training contexts cannot be dissociated from the specific approaches used. To make some sense out of this, it is important to explain that there is not one single approach to e-Learning, but many, and we believe that there are still many others to be discovered. The problem is that most e-Learning solutions reflect the traditional instructional models that come from classroom learning. Very often we observe trainers, tutors and teachers making a huge effort to make as well as possible through e-Learning something that they would do greatly in a classroom.

So, understanding that high-quality e-Learning requires e-Pedagogical models and methods is crucial for the development of successful and adequate solutions. Only by innovating through methods training companies will have an attractive offer and schools will overcome some resistances to the ICT penetration.

Part III

Field Analysis

Comparing perceptions of added-value

One of the goals of this project was "to identify the added-value and the successful practices of ICT introduction in education and training processes". We know that added-value always contains a subjective factor because it depends on the perspective taken by the evaluator. We didn't want to impose our own perspective so we decided to study how people perceive the impact of ICT in education and training through the application of a questionnaire.

First of all we built a conceptual framework to help us on the conception of the questionnaire. That framework was based on our own experiences, on the informations gathered in the previous stage and on the discussions that took place in some workshops organized by the different partners of this project.

The conceptual framework contained the variables that we wanted to study. The next step was to select which variables should be addressed to Students, to Tutors and to Administrators. After this we had the structure for three questionnaires, one per group, and we built the questions in six languages: English, French, Italian, Icelandic, Portuguese and Spanish.

The 18 questionnaires (3 groups x 6 languages) were made available on the Web and each partner tried to recruit respondents in its own country. One of the most effective strategies for recruitment was to contact schools, universities, training centres and training companies and ask the course coordinators/administrators to help us on the recruitment of tutors and students. We sent the URLs with the links for the on-line questionnaires and we kept the questionnaires available for about 45 days.

	Students	***Tutors***	***Administrators***	***Total***
France	60	4	4	68
Iceland	310	15	3	328
Italy	95	9	5	109
Portugal	21	10	5	36
Spain	49	22	18	89
United Kingdom	1	14	4	19
Total	**536**	**74**	**39**	**649**

Number of respondents of each group.

We got a total of 649 respondents: 536 Students, 74 Tutors and 39 Administrators. A strength of this sample is the high number of students that we got but this sample also has some weaknesses. The first is the extremely low number of students from UK. Another weakness is that Iceland got more students than the other partners all together. This difference, associated with other factors, made it inappropriate to compare the data from Icelandic Students with the from the Students of the other countries. Later we explain more about those other factors.

The questionnaire contained several incomplete statements that respondents should complete by choosing from three learning modalities the one that was more relevant for each statement. The three learning modalities were:

- Presential Learning – meaning classroom learning without the use of ICT;
- Distance Learning – meaning the learning that occurs exclusively through on-line activities;
- Blended Learning – meaning the combination of presential activities and on-line activities or the usage of ICT in the classrooms.

We hoped that through these categories we could understand whether respondents value ICT tools and presential contact. The incomplete statements referred to different variables and were used to provide respondents with a context. For each context the respondent should decide whether ICT tools, face-to-face contact or a combination of the two was the most relevant.

When we first looked at the data we noticed one of the weaknesses of this study. We realised that the Icelandic Students had extremely few answers given to Blended Learning. First we thought that they didn't like Blended Learning but then we realised that the Blended Learning option was ignored both for the positive and for the negative features. After a deeper analysis and discussion of these results we concluded that the Icelandic word used for Blended Learning was perhaps too "academic" or "technical" and not commonly known among the students. Furthermore, for Icelandic Students, presential classes are usually enriched with ICT media, so it doesn't make much sense for them to talk about Presential Learning without ICT. This conclusion posed us a serious constraint for the analysis of the results and we decided to exclude the Icelandic Students from the general analysis. Nevertheless it is possible to know from them whether they value more Distance Learning or Presential Learning concerning the different variables.

The small number of respondents of some groups made us adopt another method for the analysis of the data. Besides the general percentages that take as reference the total number of answers to a question we also used the averages of the group percentages. These averages are calculated by:

- excluding the groups with less than 8 respondents

- calculating the percentage of responses that each modality got from each group
- calculating the average of those percentages for each modality

This way we got a proportional number that respects the different group sizes.

Next we present the results of the questionnaire organized by dimensions. The dimensions are:

- Pedagogical
- Communicational
- Attitudinal and Motivational
- Economical
- Social Representations
- Accessibility
- Management

Pedagogical Dimension

In order to know how the respondents perceive the Distance Learning, the Blended Learning and the Presential Learning in respect to many pedagogical aspects we posed some questions going from learning quality to the evaluation accuracy.

An overall analysis shows us that the Blended Learning is highly valued both by tutors and students. The majority of respondents seem to choose Blended Learning in dimensions like concept acquisition and understanding, the diversity of learned concepts, the application of acquired knowledge, the learning speed, the development of new attitudes, the awareness and control of students over the learning process, the focus on the learning tasks and the active and autonomous role that they assume. The tutors value the Blended Learning for the flexibility of its didactic tools as well as the possibility given to the students to make a more accurate self-evaluation. It is likely that the Blended Learning is regarded as an interesting approach thanks to its possibility of merging together the strengths of the Presential classes with strengths of the Distance approach, namely the use of ICT.

Tutors value Presential Learning more in most of the questions related to evaluation (evaluation of acquired concepts, evaluation of attitude change and, mainly, the evaluation of the practical skills acquired). Most tutors also believe that is easier to motivate students in the Presential modality.

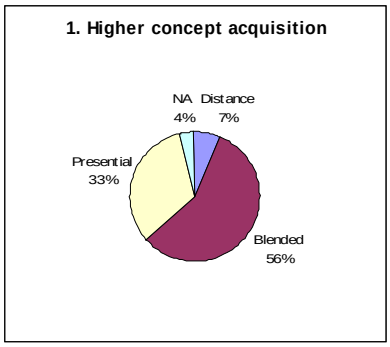
Distance Learning gets lower results than Presential Learning in almost all the pedagogical variables. The only exception is for the variables related with students' control and autonomy over the learning process. Tutors also consider that Distance and Blended methods make easier for them to use non-directive pedagogical strategies.

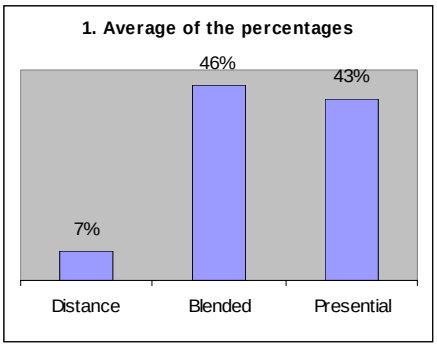
In summary, the face-to-face contact seems to be seen as very important for evaluation and student motivation. In opposition, distance is seen as a facilitator of students' autonomy.

Concept acquisition

Questions:
S1. I learn more concepts when I learn through… T1. Students learn more concepts through…

1. Higher concept acquisition	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	3	14%	15	71%	3	14%	0	0%	21
Portuguese tutors	0	0%	7	70%	3	30%	0	0%	10
Spanish students	4	8%	23	47%	15	31%	7	14%	49
Spanish tutors	6	27%	7	32%	4	18%	5	23%	22
Italian students	5	5%	60	63%	30	32%	0	0%	95
Italian tutors	1	11%	4	44%	4	44%	0	0%	9
French students	0	0%	40	67%	20	33%	0	0%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	0	0%	5	36%	9	64%	0	0%	14
Icelandic tutors	1	7%	4	27%	10	67%	0	0%	15
	20	7%	169	56%	99	33%	12	4%	300
	Mean = 7%		Mean = 46%		Mean = 43%				
Icelandic students	116	37%	6	2%	183	59%	5	2%	310



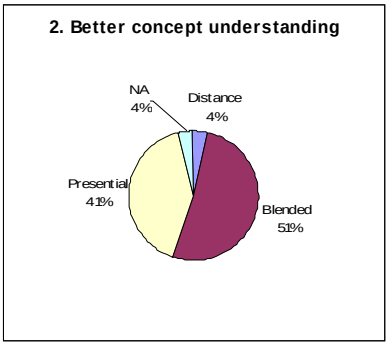


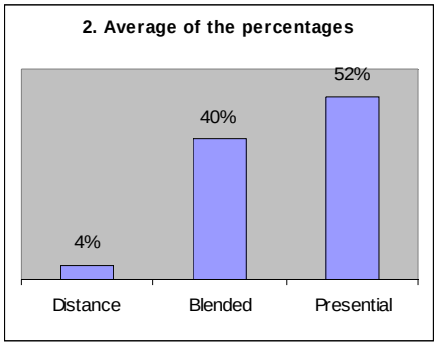
We asked students and tutors about the concept acquisition (questions S1 and T1) and the majority (56%) pointed Blended Learning as the more effective on this issue. Portuguese Students and Portuguese Tutors were the groups of respondents that showed a stronger preference for Blended Learning (71% and 70%). Icelandic and British Tutors clearly prefer Presential Learning (67% and 64%). Distance Learning was chosen by 7% of the Students and Tutors.
Most Icelandic Students (59%) chose Presential Learning.

Concept understanding

Questions:
S2. I understand the concepts much better when I learn through… T2. Students understand the concepts much better when they learn through...

2. Concept understanding	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	2	10%	10	48%	9	43%	0	0%	21
Portuguese tutors	0	0%	4	40%	6	60%	0	0%	10
Spanish students	2	4%	23	47%	18	37%	6	12%	49
Spanish tutors	1	5%	10	45%	7	32%	4	18%	22
Italian students	4	4%	45	47%	46	48%	0	0%	95
Italian tutors	0	0%	2	22%	7	78%	0	0%	9
French students	0	0%	44	73%	16	27%	0	0%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	1	7%	6	43%	7	50%	0	0%	14
Icelandic tutors	2	13%	5	33%	7	47%	1	7%	15
	12	4%	153	51%	124	41%	11	4%	300
	Mean = 4%		Mean = 40%		Mean = 52%				
Icelandic students	91	29%	6	2%	206	66%	7	2%	310



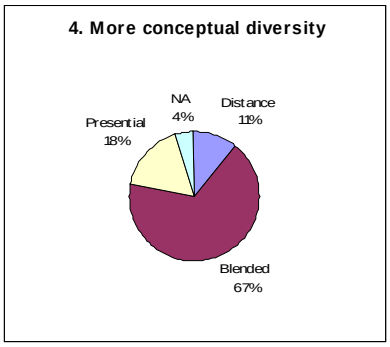


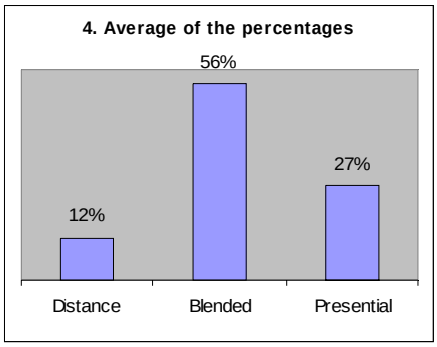
On the questions S2 and T2 regarding the concept understanding, aproximately half of the students and tutors (51%) chose Blended Learning while 41% chose Presential Learning. This high number of responses for Blended Learning had a strong contribution from the French Students (73%). An analysis of the group percentages shows that, in average, groups favour the Presencial Learning (52% against the 40% obtained by the Blended Learning). Distance Learning seems to be not considered just as effective for concept undertanding (4%). The responses suggest that both students and tutors believe that face-to-face contact is important for concept understanding. Icelandic Students showed the same orientation since 66% chose Presential Learning.

Concept diversity

Questions:
S4. I get more diverse knowledge when I learn through… T4. Students get more diverse knowledge when they learn through...

4. Conceptual diversity	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	15	71%	1	5%	1	5%	21
Portuguese tutors	0	0%	9	90%	1	10%	0	0%	10
Spanish students	3	6%	26	53%	14	29%	6	12%	49
Spanish tutors	2	9%	11	50%	5	23%	4	18%	22
Italian students	14	15%	61	64%	20	21%	0	0%	95
Italian tutors	4	44%	4	44%	1	11%	0	0%	9
French students	2	3%	57	95%	1	2%	0	0%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	1	7%	8	57%	5	36%	0	0%	14
Icelandic tutors	3	20%	5	33%	5	33%	2	13%	15
	33	11%	200	67%	54	18%	13	4%	300
	Mean = 12%		Mean = 56%		Mean = 27%				
Icelandic students	176	57%	15	5%	116	37%	3	1%	310



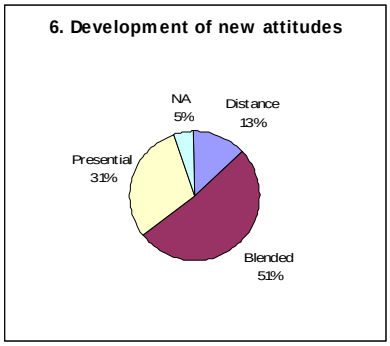


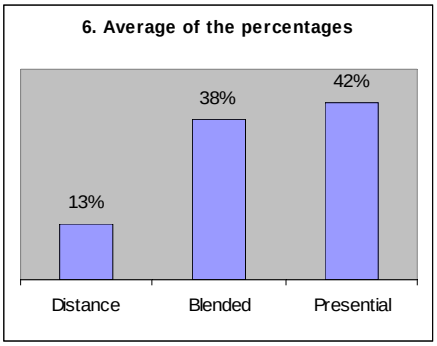
Most Students and Tutors (67%) elected Blended Learning as the one that provides a wider conceptual diversity. Only 18% chose Presential Learning and 11% chose Distance Learning. The groups that show a stronger preference for Blended Learning are the French Students (95%), the Portuguese Tutors (90%) and the Portuguese Students (71%). Among the Icelandic Students 57% believes that Distance Learning favours conceptual diversity.

Development of new attitudes

Questions:
S6. I form opinions more easily when I learn through… T6. Students form opinions more easily when they learn through...

6. Developing new attitudes	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	11	52%	5	24%	1	5%	21
Portuguese tutors	3	30%	3	30%	4	40%	0	0%	10
Spanish students	9	18%	16	33%	18	37%	6	12%	49
Spanish tutors	3	14%	12	55%	2	9%	5	23%	22
Italian students	14	15%	44	46%	37	39%	0	0%	95
Italian tutors	0	0%	2	22%	6	67%	1	11%	9
French students	1	2%	54	90%	5	8%	0	0%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	1	7%	4	29%	9	64%	0	0%	14
Icelandic tutors	4	27%	4	27%	5	33%	2	13%	15
	39	13%	154	51%	92	31%	15	5%	300
	Mean = 13%		Mean = 38%		Mean = 42%				
Icelandic students	169	55%	9	3%	127	41%	5	2%	310



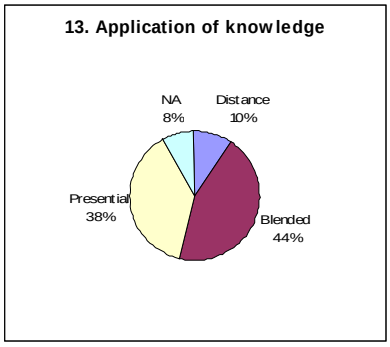


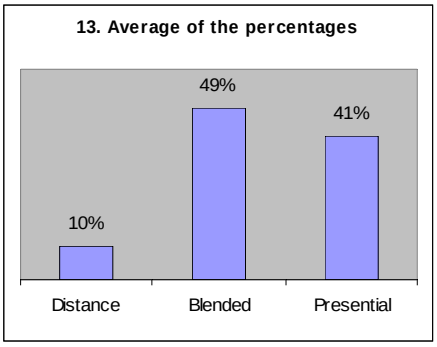
We made the questions S6 and T6 in order to know which training modality is the one that Students and Tutors consider to be the most effective for the development of new attitudes. Blended Learning got 51% of the answers, Presential Learning got 31% and Distance Learning got only 13%. Similarly to the results of the variable "understanding of concepts" this high percentage of answers on Blended Learning results from the strong preference shown by the French Students.
Once more, the average of the group percentages is higher for Presential Learning. Therefore the results show that not many respondents consider Distance Learning as a good modality for the development of new attitudes, which suggests that students and tutors value face-to-face contact as an important promoter of attitude change. The Icelandic Students seem to be divided because 55% chose Distance Learning and 41% chose Presential Learning.

Application of acquired knowledge

Questions:
S13. It is easier to apply my previous knowledge when I learn through... T13. Students make a better application of knowledge when they learn through...

13. Application of knowledge	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	2	10%	8	38%	10	48%	1	5%	21
Portuguese tutors	0	0%	7	70%	3	30%	0	0%	10
Spanish students	6	12%	23	47%	11	22%	9	18%	49
Spanish tutors	2	9%	12	55%	3	14%	5	23%	22
Italian students	11	12%	58	61%	24	25%	2	2%	95
Italian tutors	3	33%	1	11%	3	33%	2	22%	9
French students	0	0%	12	20%	47	78%	1	2%	60
French tutors	1	25%	2	50%	0	0%	1	25%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	0	0%	4	29%	10	71%	0	0%	14
Icelandic tutors	4	27%	5	33%	3	20%	3	20%	15
	29	10%	132	44%	115	38%	24	8%	300
	Mean = 10%		Mean = 49%		Mean = 41%				
Icelandic students	166	54%	13	4%	127	41%	4	1%	310



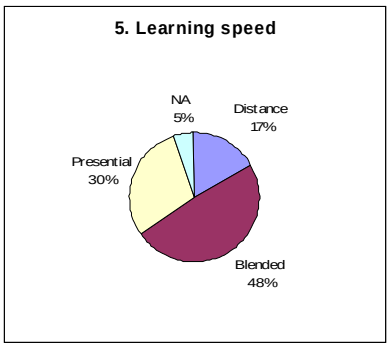


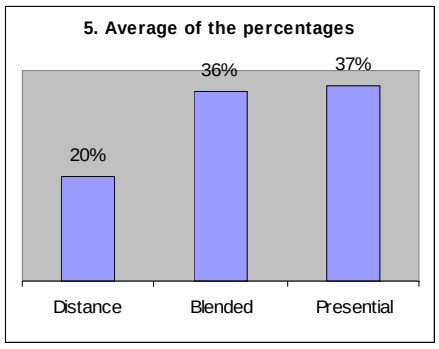
According to 44% of Students and tutors, the knowledge is more easily applied (questions S13 and T13) if learned in a Blended modality, 38% say that knowledge learned through Presential Learning is easier to apply and according to 10% it is knowledge acquired through Distance methods.
Among the Icelandic Students 54% chose knowledge obtained by Distance Learning and 41% chose knowledge learned in Presential settings.
At this time we cannot assert that respondents clearly point out a specific modality as the ideal one for knowledge acquisition, however it seems that face-to-face contact plays a major role for the most. The importance given to this face-to-face contact is inferred from the preference given to Presential and Blended learning modalities.

Learning speed

Questions:
S5. I learn faster through… T5. Students learn faster through...

5. Learning speed	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	10	48%	6	29%	1	5%	21
Portuguese tutors	2	20%	4	40%	4	40%	0	0%	10
Spanish students	16	33%	14	29%	13	27%	6	12%	49
Spanish tutors	4	18%	8	36%	5	23%	5	23%	22
Italian students	13	14%	37	39%	45	47%	0	0%	95
Italian tutors	4	44%	2	22%	2	22%	1	11%	9
French students	0	0%	57	95%	3	5%	0	0%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	2	14%	6	43%	6	43%	0	0%	14
Icelandic tutors	6	40%	2	13%	5	33%	2	13%	15
	51	17%	144	48%	90	30%	15	5%	300
	Mean =	20%	Mean =	36%	Mean =	37%			
Icelandic students	212	68%	8	3%	87	28%	3	1%	310



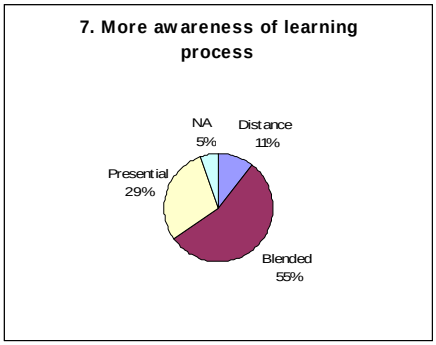


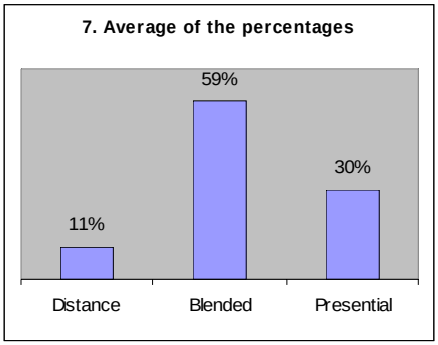
Regarding the learning speed (questions S5 and T5), 48% of the inquired Tutors and Students chose Blended Learning, 30% chose the Presential Learning and 17% chose the Distance Learning. However the average of the group percentages for Blended Learning and Presential Learning (36% and 37% respectively) don't differ much. The mean percentages for Distance Learning weren't as low as the observed in the previous variables (20%). These data suggest that the perceptions of the relationship between learning speed and the different formative modalities vary a lot among respondents and don't seem to follow any tendency. The Icelandic Students, on the other hand, seem to have a clear preference for Distance Learning since 68% indicate this modality as the one where learning is faster.

Students' awareness of the learning process

Questions:
S7. I have a much better perception of the learning process through... T7. Students have a much better perception of the learning process when they learn through...

7. Students' awareness of the learning process	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	13	62%	3	14%	1	5%	21
Portuguese tutors	1	10%	9	90%	0	0%	0	0%	10
Spanish students	6	12%	23	47%	14	29%	6	12%	49
Spanish tutors	1	5%	13	59%	4	18%	4	18%	22
Italian students	14	15%	48	51%	31	33%	2	2%	95
Italian tutors	3	33%	3	33%	2	22%	1	11%	9
French students	0	0%	41	68%	18	30%	1	2%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	0	0%	4	29%	10	71%	0	0%	14
Icelandic tutors	3	20%	6	40%	5	33%	1	7%	15
	32	11%	164	55%	88	29%	16	5%	300
	Mean =	11%	Mean =	59%	Mean =	30%			
Icelandic students	148	48%	8	3%	149	48%	5	2%	310



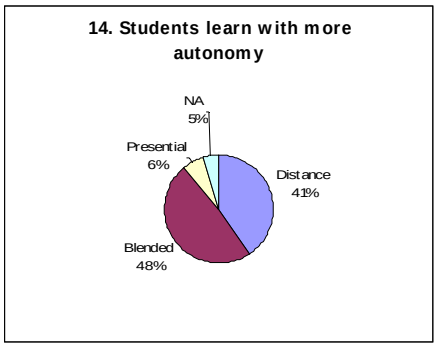


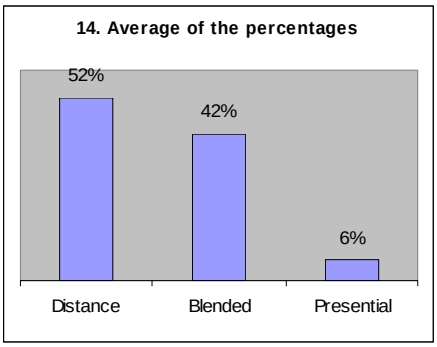
When asked about the modality in which Students have a better perception of the learning process (questions S7 and T7), 55% of the inquired chose blended learning, 29% chose Presential Learning and only 11% choose Distance Learning. The mean percentages of each group have values extraordinary close to those (59%, 30% and 11% respectively). The answers of the Icelandic Students are divided in equal parts (of 48%) between Distance Learning and Presential Learning.

Students' autonomy in the learning process

Questions:
S14. I feel more autonomy when I learn through... T14. Students learn more autonomously through...

14. Learning autonomy	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	11	52%	8	38%	1	5%	1	5%	21
Portuguese tutors	7	70%	3	30%	0	0%	0	0%	10
Spanish students	31	63%	13	27%	0	0%	5	10%	49
Spanish tutors	11	50%	4	18%	3	14%	4	18%	22
Italian students	42	44%	43	45%	9	9%	1	1%	95
Italian tutors	7	78%	2	22%	0	0%	0	0%	9
French students	0	0%	55	92%	4	7%	1	2%	60
French tutors	1	25%	3	75%	0	0%	0	0%	4
British students	0	0%	1	100%	0	0%	0	0%	1
British tutors	4	29%	8	57%	2	14%	0	0%	14
Icelandic tutors	8	53%	5	33%	0	0%	2	13%	15
	122	41%	145	48%	19	6%	14	5%	300
	Mean =	52%	Mean =	42%	Mean =	6%			
Icelandic students	221	71%	5	2%	82	26%	2	1%	310





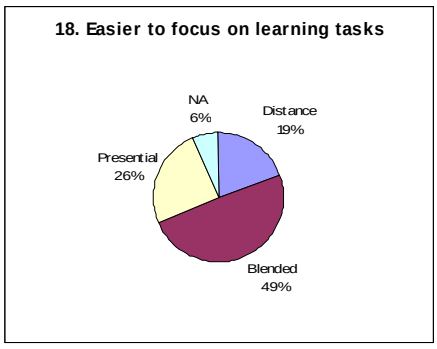
According to the Students and Tutors inquired, the modalities that confer Students a greater autonomy in the learning process (questions S14 and T14) are Blended Learning (48%) and Distance Learning (41%); Presential Learning is the one that got less answers (6%). However, the average of the group percentages shows a different order. There are more groups perceiving the Distance Learning as the one that confers more autonomy to the Students; the average for this modality is 52% and for Blended Learning is 42%. Once again French Students have a significant weigh in the absolute value of answers given for the category of Blended Learning (92%). Icelandic Students don't reveal any doubt since 71% of them point out Distance Learning as the modality that more contributes for learning autonomy.

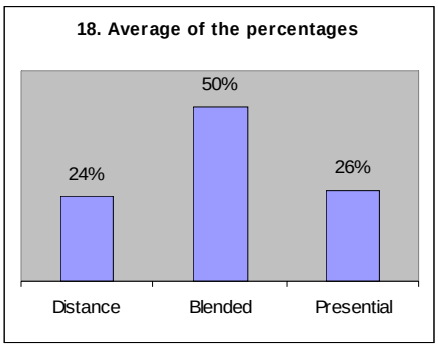
In general, distance seems to be seen as a factor that favours Students' autonomy.

Students' focus on learning activities

Questions:
S18. My focus on the learning tasks is better in... T18. Students get more focused on the learning tasks in...

18. Easy to focus on learning	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	8	38%	8	38%	1	5%	21
Portuguese tutors	4	40%	4	40%	2	20%	0	0%	10
Spanish students	14	29%	22	45%	7	14%	6	12%	49
Spanish tutors	8	36%	8	36%	2	9%	4	18%	22
Italian students	21	22%	42	44%	30	32%	2	2%	95
Italian tutors	2	22%	3	33%	3	33%	1	11%	9
French students	0	0%	42	70%	16	27%	2	3%	60
French tutors	1	25%	3	75%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	1	7%	8	57%	5	36%	0	0%	14
Icelandic tutors	3	20%	6	40%	3	20%	3	20%	15
	58	19%	146	49%	77	26%	19	6%	300
	Mean = 24%		Mean = 50%		Mean = 26%				
Icelandic students	182	59%	7	2%	119	38%	2	1%	310



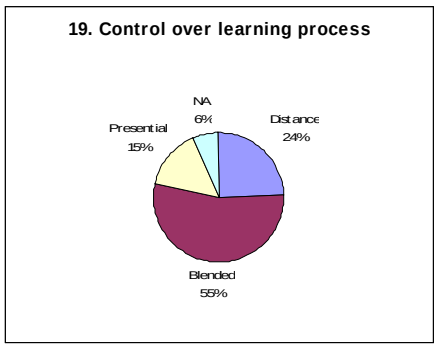


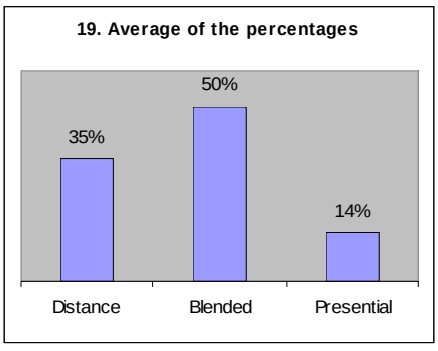
Answering questions S18 and T18, 49% of Students and inquired tutors chose Blended Learning, 26% chose Presential Learning and 19% choose Distance Learning. Theses data are consistent with the average of the group percentages. In fact, the mean percentage of Tutors and Students of each country that chose Blended Learning is 50%. Icelandic Students chose Distance Learning more.
The data don't make clear the relative importance that respondents attribute to distance and to face-to-face contact concerning the Students' focus on the learning tasks.

Students' control over the learning process

Questions:
S19. I have more control over my learning process when I learn through... T19. Students have higher control over their learning process in...

19. Control over learning process	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	6	29%	11	52%	3	14%	1	5%	21
Portuguese tutors	4	40%	4	40%	1	10%	1	10%	10
Spanish students	19	39%	18	37%	6	12%	6	12%	49
Spanish tutors	9	41%	7	32%	2	9%	4	18%	22
Italian students	18	19%	56	59%	19	20%	2	2%	95
Italian tutors	2	22%	3	33%	3	33%	1	11%	9
French students	1	2%	49	82%	8	13%	2	3%	60
French tutors	1	25%	2	50%	0	0%	1	25%	4
British students	0	0%	1	100%	0	0%	0	0%	1
British tutors	5	36%	6	43%	3	21%	0	0%	14
Icelandic tutors	8	53%	5	33%	1	7%	1	7%	15
	73	24%	162	54%	46	15%	19	6%	300
	Mean =	35%	Mean =	50%	Mean =	14%			
Icelandic students	216	70%	5	2%	86	28%	3	1%	310



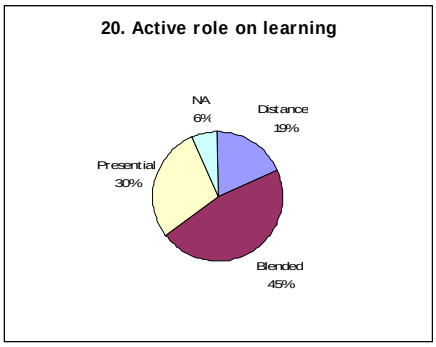


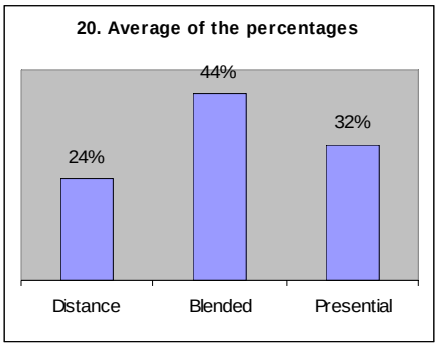
The questions T19 and S19 evaluate Tutors' and Students' perception about the level of control that Students have over the learning process. Blended Learning was chosen by 54% of the respondents, 24% chose Distance Learning and 15% chose the Presential Learning. These numbers are consistent with the average of the group percentages. Among Icelandic Students 70% chose Distance Learning. These data strongly suggest that most respondents see distance as a facilitating factor for the control that Students may have over the learning process.

Students' active role on the learning process

Questions:
S20. I have a more active role when I learn through... T20. Students have a more active role in...

20. Active role on learning	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	8	38%	6	29%	6	29%	1	5%	21
Portuguese tutors	4	40%	5	50%	1	10%	0	0%	10
Spanish students	8	16%	20	41%	15	31%	6	12%	49
Spanish tutors	4	18%	11	50%	3	14%	4	18%	22
Italian students	24	25%	48	51%	21	22%	2	2%	95
Italian tutors	3	33%	2	22%	4	44%	0	0%	9
French students	1	2%	31	52%	26	43%	2	3%	60
French tutors	0	0%	3	75%	0	0%	1	25%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	1	7%	7	50%	6	43%	0	0%	14
Icelandic tutors	3	20%	4	27%	6	40%	2	13%	15
	56	19%	137	46%	89	30%	18	6%	300
	Mean =	24%	Mean =	44%	Mean =	32%			
Icelandic students	159	51%	2	1%	147	47%	2	1%	310



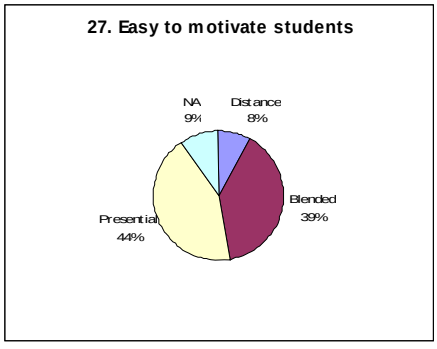


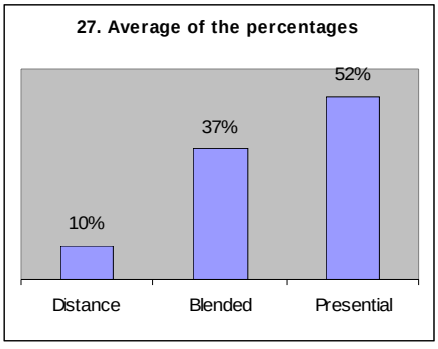
Questions S20 and T20 let us know which learning modality makes easier for Students to have an active role in the learning process. Blended Learning received 46% of the answers, Presential Learning got 30% and Distance Learning got 19%. These numbers are consistent with the average of the group percentages. Icelandic Students answers are distributed through Distance Learning (51%) and Presential Learning (47%).
The data don't support any clear difference on the weight that respondents attribute to distance and to face-to-face contact as facilitators of the Students' active role on learning.

Means to motivate students

Question:
T27. It's easier to motivate students in...

27. Easier to motivate students	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	1	10%	3	30%	5	50%	1	10%	10
Spanish tutors	2	9%	11	50%	5	23%	4	18%	22
Italian tutors	2	22%	1	11%	6	67%	0	0%	9
French tutors	0	0%	3	75%	1	25%	0	0%	4
British tutors	0	0%	7	50%	7	50%	0	0%	14
Icelandic tutors	1	7%	4	27%	8	53%	2	13%	15
	6	8%	29	39%	32	43%	7	9%	74
	Mean =	10%	Mean =	37%	Mean =	52%			



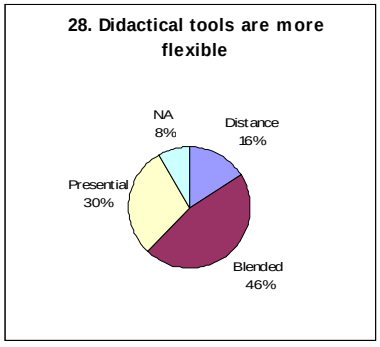


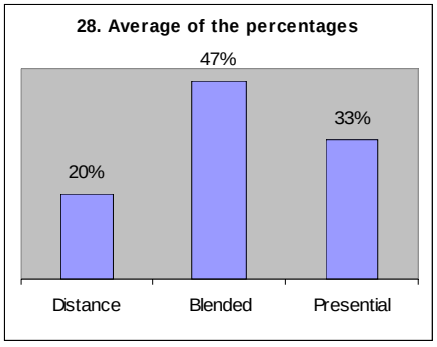
The tutors had been questioned about the modality that offers more possibilities to motivate Students (T27 question) and 43% of them chose Presential Learning, 39% chose Blended Learning and only 8% chose Distance Learning. When we compare the average of the percentages of each group of tutors, the gap between the first two increases: 52% for Presential Learning and 37% for Blended Learning. The results seem to indicate that most Tutors inquired believe that face-to-face contact makes easier for them to motivate students.

Flexibility of the didactic tools

Question:
T28. Teaching tools are more flexible in...

28. Flexibility of didactic tools	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	3	30%	6	60%	1	10%	0		10
Spanish tutors	4	18%	7	32%	7	32%	4	18%	22
Italian tutors	3	33%	3	33%	3	33%	0	0%	9
French tutors	0	0%	4	100%	0	0%	0	0%	4
British tutors	2	14%	8	57%	4	29%	0	0%	14
Icelandic tutors	0	0%	6	40%	7	47%	2	13%	15
	12	16%	34	46%	22	30%	6	8%	74
	Mean =	20%	Mean =	47%	Mean =	33%			



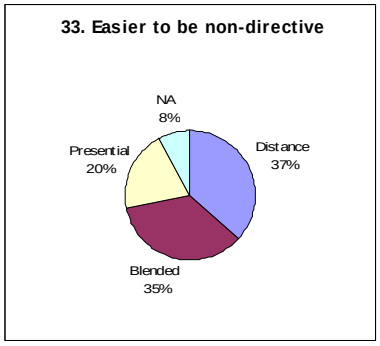


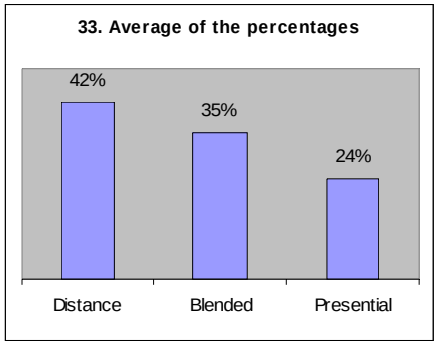
Tutors were also asked about the training modality that offers the greater flexibility in teaching tools (T28 question) and 46% of them chose Blended Learning, 30% indicated Presential Learning and 16% indicated Distance Learning. This flexibility attributed to Blended Learning is probably related to the tutors' perception that in this modality they can combine the typical tools of Presential Learning with the Distance Learning tools.

Opportunity to employ non-directive methods

Question:
T33. It's easier to employ non-directive methods in...

33. Easy to be non-directive	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	6	60%	1	10%	3	30%	0	0%	10
Spanish tutors	9	41%	7	32%	3	14%	3	14%	22
Italian tutors	5	56%	2	22%	1	11%	1	11%	9
French tutors	2	50%	2	50%	0	0%	0	0%	4
British tutors	1	7%	9	64%	4	29%	0	0%	14
Icelandic tutors	4	27%	5	33%	4	27%	2	13%	15
	27	36%	26	35%	15	20%	6	8%	74
	Mean = 42%		Mean = 35%		Mean = 24%				



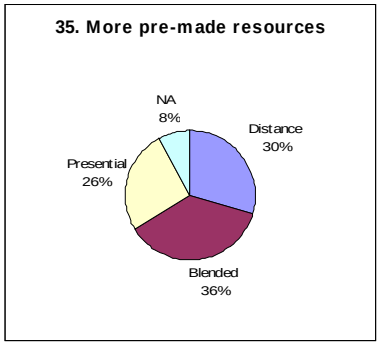


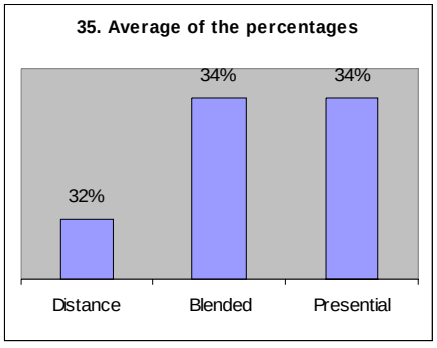
When asked about the modality that makes easier for tutors to adopt non-directive pedagogical methods (question T33), 36% of them chose Distance Learning, 35% chose Blended Learning and 20% chose Presential Learning. These numbers are consistent with the average of the group percentages.

Existence of pre-made resources

Question:
T35. There are more pre-made solutions and activities for...

35. Abundancy of pre-made resources	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	1	10%	1	10%	8	80%	0	0%	10
Spanish tutors	10	45%	8	36%	0	0%	4	18%	22
Italian tutors	5	56%	2	22%	2	22%	0	0%	9
French tutors	1	25%	3	75%	0	0%	0	0%	4
British tutors	2	14%	9	64%	3	21%	0	0%	14
Icelandic tutors	3	20%	4	27%	6	40%	2	13%	15
	22	30%	27	36%	19	26%	6	8%	74
	Mean =	32%	Mean =	34%	Mean =	34%			



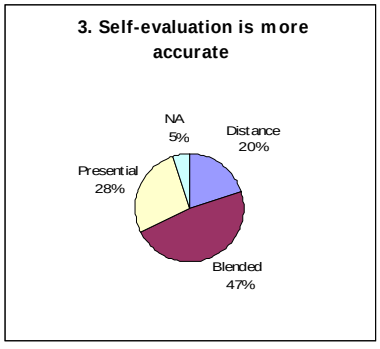


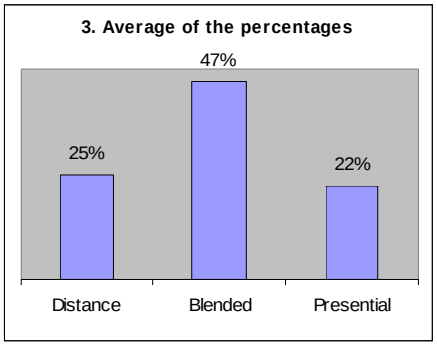
The T35 question asks to Tutors to indicate which formative modality offers more pre-made solutions and resources. Blended Learning got 36% of the answers, Distance Learning got 30% and Presential Learning got 26%. Therefore, there is no significant difference between the categories, not even when we compare the averages of the group percentages: 32% for Distance Learning, 34% for Blended and 34% for Presential Learning.

Ease for Students' self-assessment

Questions:
S3. It is easier to evaluate my knowledge when I learn through… T3. Students make a more accurate self-assessment when they learn through...

3. Easy self-evaluation for students	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	15	71%	2	10%	0	0%	21
Portuguese tutors	3	30%	6	60%	1	10%	0	0%	10
Spanish students	13	27%	19	39%	11	22%	6	12%	49
Spanish tutors	5	23%	8	36%	5	23%	4	18%	22
Italian students	22	23%	44	46%	29	31%	0	0%	95
Italian tutors	4	44%	4	44%	0	0%	1	11%	9
French students	1	2%	32	53%	27	45%	0	0%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	2	14%	6	43%	6	43%	0	0%	14
Icelandic tutors	6	40%	4	27%	2	13%	3	20%	15
	60	20%	142	47%	84	28%	14	5%	300
	Mean =	25%	Mean =	47%	Mean =	22%			
Icelandic students	232	75%	9	3%	64	21%	5	2%	310



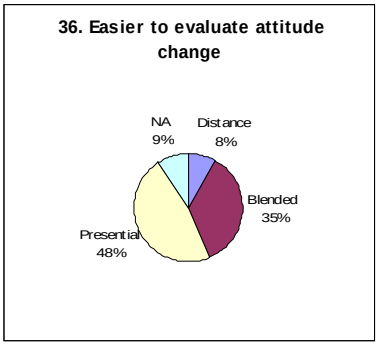


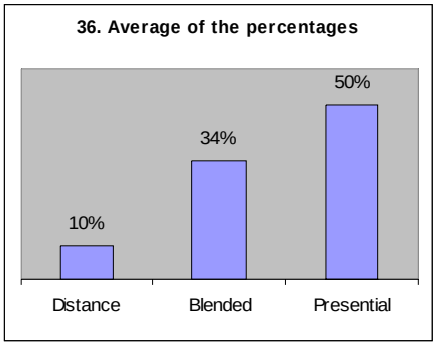
Questions S3 and T3 have the same aim: to know which modality allows students to make a more accurate self-assessment according to the Students' and the Tutors' perceptions. Blended Learning got 47% of the answers while Presential Learning got 28% and Distance Learning got 20% of the answers. The averages of the group percentages are more favourable to Distance Learning (25%) than to the Presential one (22%). However Blended Learning is the preferred by the generality of the groups getting a mean percentage of 47%. Most Icelandic Students (75%) chose Distance Learning.

Accuracy on the evaluation of the students' attitude change

Question:
T36. The evaluation of the students' attitude change is more accurate in...

36. Evaluate students' attitudes	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	2	20%	2	20%	6	60%	0	0%	10
Spanish tutors	1	5%	8	36%	9	41%	4	18%	22
Italian tutors	1	11%	4	44%	4	44%	0	0%	9
French tutors	0	0%	2	50%	1	25%	1	25%	4
British tutors	2	14%	7	50%	5	36%	0	0%	14
Icelandic tutors	0	0%	3	20%	10	67%	2	13%	15
	6	8%	26	35%	35	47%	7	9%	74
	Mean =	10%	Mean =	34%	Mean =	50%			



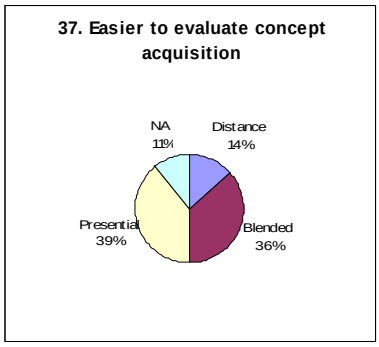


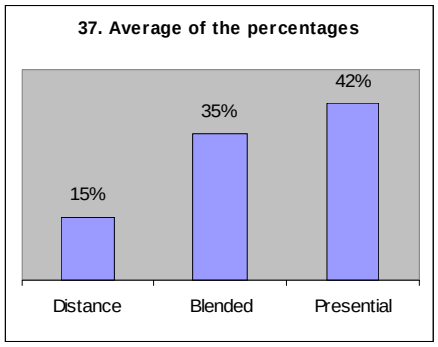
Tutors were asked about which formative modality allows for a more accurate evaluation of the changes in the students' attitudes (question T36). Most answers pointed to Presential Learning (47%) while Blended Learning got 35% of the answers and Distance Learning got only 8%. These data suggest that tutors strongly value the role of face-to-face contact in the evaluation of students' attitudes.

Accuracy on the evaluation of the students' acquisition of concepts

Question:
T37. The evaluation of the students' conceptual acquisition is more accurate in...

37. Evaluate concept acquisition	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	2	20%	5	50%	2	20%	1	10%	10
Spanish tutors	3	14%	10	45%	5	23%	4	18%	22
Italian tutors	2	22%	2	22%	5	56%	0	0%	9
French tutors	0	0%	2	50%	1	25%	1	25%	4
British tutors	1	7%	6	43%	6	43%	1	7%	14
Icelandic tutors	2	13%	2	13%	10	67%	1	7%	15
	10	14%	27	36%	29	39%	8	11%	74
	Mean =	15%	Mean =	35%	Mean =	42%			



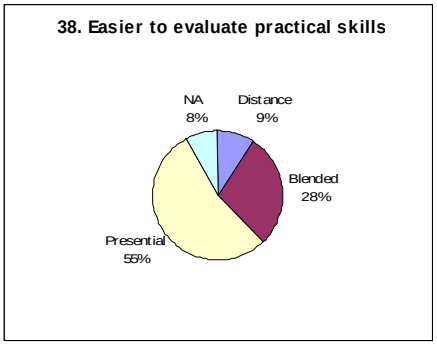


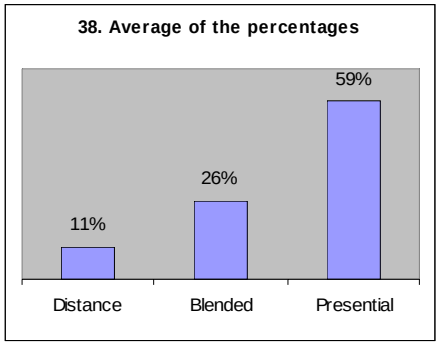
Tutors were also asked about the training modality that allows them to more accurately evaluate how students are acquiring concepts (question T37). The absolute numbers of those that chose Presential Learning (39%) and those that chose Blended Learning (36%) are very close. On the other hand, Distance Learning got only 14% of the answers. These data are not very expressive but they suggest that the face-to-face contact may have, in this point, some value for the inquired tutors.

Accuracy on the evaluation of students' practical skills

Question:
T38. The evaluation of the students' practical skills is more accurate in...

38. Evaluate practical skills	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	1	10%	2	20%	7	70%	0	0%	10
Spanish tutors	3	14%	10	45%	5	23%	4	18%	22
Italian tutors	2	22%	2	22%	5	56%	0	0%	9
French tutors	0	0%	1	25%	2	50%	1	25%	4
British tutors	0	0%	4	29%	10	71%	0	0%	14
Icelandic tutors	1	7%	2	13%	11	73%	1	7%	15
	7	9%	21	28%	40	54%	6	8%	74
	Mean =	11%	Mean =	26%	Mean =	59%			





The T38 question identifies the formative modality that, in the opinion of the Tutors, allows for a more accurate evaluation of the practical skills of the students. On this question the percentage of Tutors that chose Presential Learning (54%) clearly detaches from those who opted for Blended Learning (28%) and Distance Learning (9%).
The data indicate with relative security that the face-to-face contact is very important for the majority of Tutors when it comes to evaluate the students' practical skills.

Communicational Dimension

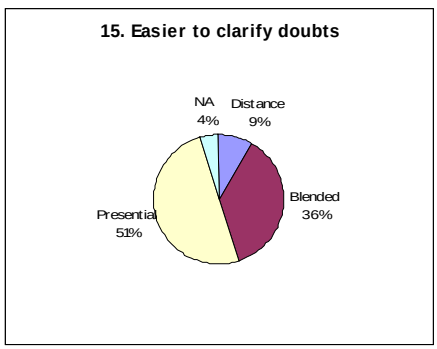
On this study we asked Students, Tutors and Administrators about how the different training modalities differ on some communicational aspects. The first evidence that emerges from the data is that Distance Learning cannot compete with the other modalities on most communication issues. Once again, Blended Learning is the preferred on most variables although results sometimes are not significantly different from those of Presential Learning.
Most respondents see Blended Learning as the best modality in terms of communication speed and effectiveness, in terms of overall information exchange and in respect to the contact of students and tutors with the course coordinators.
Respondents get divided when it comes to point out which modality (Presential or Blended) allows for more information exchange between tutors as well as between students.
Presential Learning gets more support from respondents when it comes to choose the training modality that offers better quality of interaction between students, better means to clarify doubts and more authority to tutors over students.
The semi-presential nature of Blended Learning probably makes respondents see it as a way of combining the richness of face-to-face communication with the versatility of on-line communication. The number of respondents that prefer exclusively mediated communication is very low.

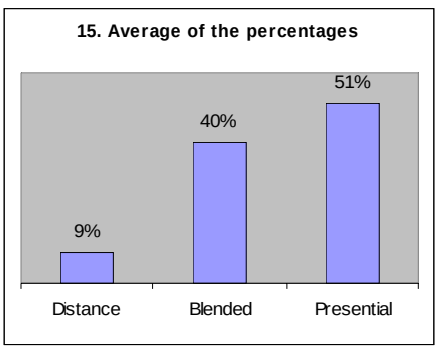
Ease on the clarification of doubts

Questions:

S15. It is easier to clarify my doubts when I learn through...
T15. Students clarify their doubts better through...

15. Easy to clarify doubts	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	2	10%	10	48%	8	38%	1	5%	21
Portuguese tutors	2	20%	4	40%	3	30%	1	10%	10
Spanish students	2	4%	20	41%	21	43%	6	12%	49
Spanish tutors	5	23%	7	32%	6	27%	4	18%	22
Italian students	15	16%	34	36%	46	48%	0	0%	95
Italian tutors	0	0%	5	56%	4	44%	0	0%	9
French students	0	0%	18	30%	41	68%	1	2%	60
French tutors	0	0%	3	75%	1	25%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	0	0%	3	21%	11	79%	0	0%	14
Icelandic tutors	0	0%	5	33%	10	67%	0	0%	15
	26	9%	109	36%	152	51%	13	4%	300
	Mean = 9%		Mean = 40%		Mean = 51%				
Icelandic students	85	27%	7	2%	215	69%	3	1%	310



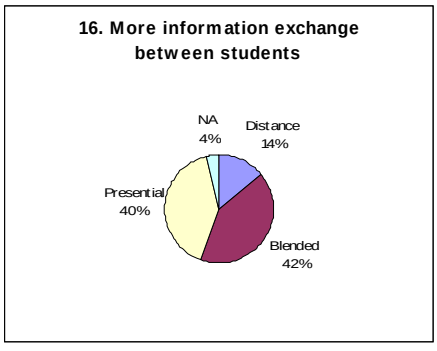


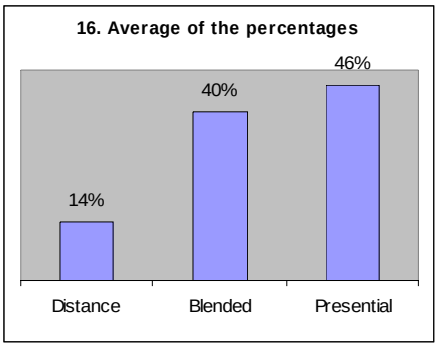
Students and Tutors were inquired about the formative modality that makes easier for students to clarify their doubts (questions S15 and T15). Presential Learning was the most chosen modality (51%), then Blended Learning (36%) and finally Distance Learning (9%). Icelandic Students also privileged Presential Learning (69%).

Information exchange between students

Questions:
S16. I exchange more information with my peer students in... T16. Students exchange more information among them in...

16. Exchange between students	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	5	24%	5	24%	10	48%	1	5%	21
Portuguese tutors	2	20%	6	60%	1	10%	1	10%	10
Spanish students	7	14%	18	37%	19	39%	5	10%	49
Spanish tutors	2	9%	12	55%	4	18%	4	18%	22
Italian students	24	25%	36	38%	35	37%	0	0%	95
Italian tutors	2	22%	0	0%	7	78%	0	0%	9
French students	0	0%	33	55%	27	45%	0	0%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	1	100%	0	0%	0	0%	1
British tutors	0	0%	6	43%	8	57%	0	0%	14
Icelandic tutors	0	0%	4	27%	10	67%	1	7%	15
	42	14%	125	42%	121	40%	12	4%	300
	Mean =	14%	Mean =	40%	Mean =	46%			
Icelandic students	65	21%	3	1%	237	76%	5	2%	310





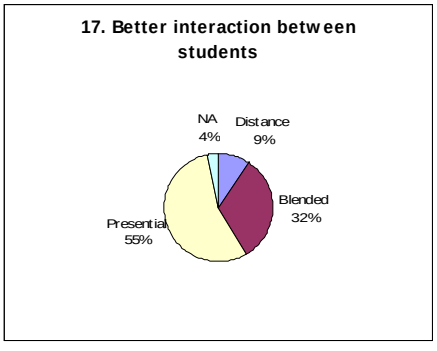
Questions S16 and T16 evaluate which are, in the opinion of Students and Tutors, the training modality that produces a bigger exchange of information between students. Answers were mainly distributed through Blended Learning (42%) and Presential Learning (40%). Distance Learning got the preference of only 14% of the respondents. The averages of the group percentages don't differ much from the absolute values but they slightly favour Presential Learning (46%) in comparison to Blended Learning (40%).

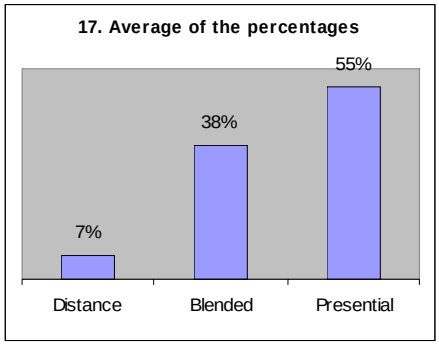
Most Icelandic Students (76%) opted for Presential Learning.

Quality of the interaction between students

Questions:
S17. The interaction among peer students is better in... T17. The interaction among peer students is better in...

17. Interaction quality among students	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	4	19%	12	57%	1	5%	21
Portuguese tutors	0	0%	5	50%	4	40%	1	10%	10
Spanish students	6	12%	11	22%	27	55%	5	10%	49
Spanish tutors	0	0%	10	45%	8	36%	4	18%	22
Italian students	17	18%	21	22%	57	60%	0	0%	95
Italian tutors	1	11%	4	44%	4	44%	0	0%	9
French students	0	0%	26	43%	34	57%	0	0%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	1	100%	0	0%	0	0%	1
British tutors	0	0%	5	36%	9	64%	0	0%	14
Icelandic tutors	0	0%	6	40%	9	60%	0	0%	15
	28	9%	97	32%	164	55%	11	4%	300
	Mean = 7%		Mean = 38%		Mean = 55%				
Icelandic students	28	9%	7	2%	269	87%	6	2%	310



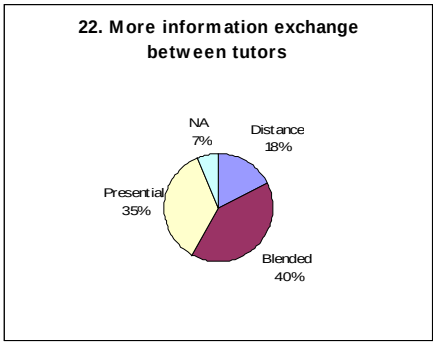


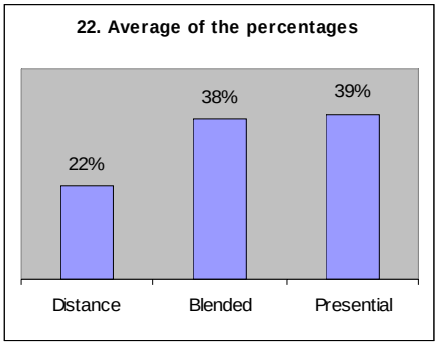
Students and Tutors were asked about the formative modality that generates the best quality of interaction between students (questions S17 and T17). Presential Learning leaded preferences with 55% of the answers against the 32% of answers obtained by Presential Learning and the 9% obtained by Distance Learning. Icelandic Students had been very clear in its preference, since 87% also chose Presential Learning.

Information exchange between tutors

Question:
T22. I exchange more information with my tutor colleagues in...

22. Exchange between tutors	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	2	20%	2	20%	5	50%	1	10%	10
Spanish tutors	5	23%	13	59%	0	0%	4	18%	22
Italian tutors	5	56%	3	33%	1	11%	0	0%	9
French tutors	0	0%	3	75%	1	25%	0	0%	4
British tutors	0	0%	6	43%	8	57%	0	0%	14
Icelandic tutors	1	7%	3	20%	11	73%	0	0%	15
	13	18%	30	41%	26	35%	5	7%	74
	Mean =	22%	Mean =	38%	Mean =	39%			



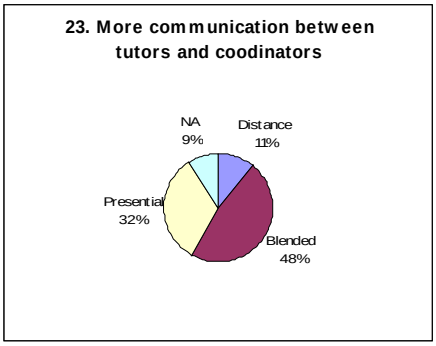


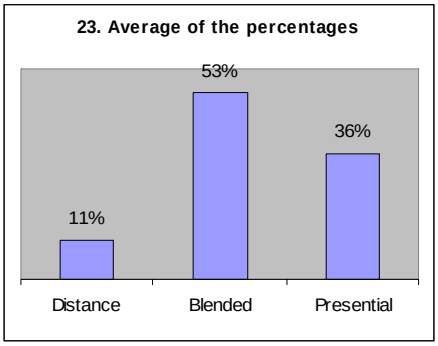
We also tried to know the opinion of the tutors about the training modality where a bigger exchange of information between tutors occurs (T22 question). Blended Learning got 41% of the answers, Presential Learning received 35% and Distance Learning collected 18% of the answers. The averages of the group percentages put Blended Learning and Presential Learning at the same level of preference (38% and 39% respectively).

Communication between tutors and course coordination

Question:
T23. Communication with coordinators is better in...

23. Communication quality between tutors and coordination	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	2	20%	3	30%	4	40%	1	10%	10
Spanish tutors	3	14%	13	59%	2	9%	4	18%	22
Italian tutors	1	11%	4	44%	3	33%	1	11%	9
French tutors	0	0%	3	75%	1	25%	0	0%	4
British tutors	0	0%	9	64%	5	36%	0	0%	14
Icelandic tutors	2	13%	3	20%	9	60%	1	7%	15
	8	11%	35	47%	24	32%	7	9%	74
	Mean =	11%	Mean =	53%	Mean =	36%			



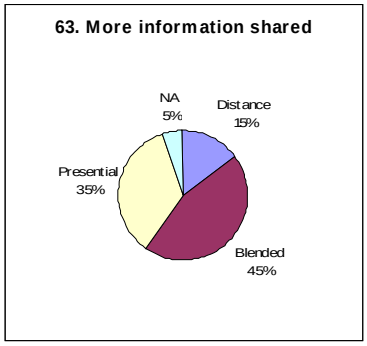


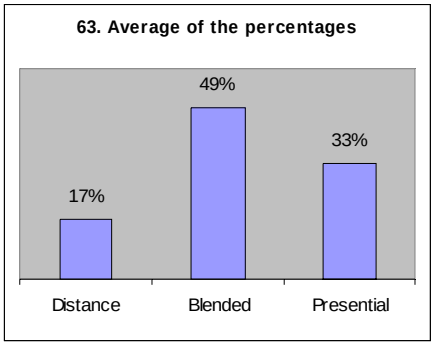
We asked the Tutors about the training modality where they communicate better with the courses coordination (question T23) and, once again, Blended Learning received more answers (47%), Presential Learning got 32% and 11% of the Tutors chose Distance Learning. The averages of the group percentages give us values that are consistent with the absolute differences observed.

Overall share of information

Question:
S63. People share more information in...

63. Information sharing	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	5	24%	11	52%	1	5%	21
Portuguese tutors	3	30%	4	40%	2	20%	1	10%	10
Portuguese administrators	1	20%	3	60%	1	20%	0	0%	5
Spanish students	10	20%	19	39%	14	29%	6	12%	49
Spanish tutors	5	23%	11	50%	2	9%	4	18%	22
Spanish administrators	4	22%	6	33%	4	22%	4	22%	18
Italian students	16	17%	42	44%	37	39%	0	0%	95
Italian tutors	2	22%	4	44%	3	33%	0	0%	9
Italian administrators	2	40%	3	60%	0	0%	0	0%	5
French students	0	0%	32	53%	28	47%	0	0%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
French administrators	1	25%	3	75%	0	0%	0	0%	4
British students	0	0%	1	100%	0	0%	0	0%	1
British tutors	1	7%	7	50%	6	43%	0	0%	14
British administrators	0	0%	2	50%	2	50%	0	0%	4
Icelandic tutors	2	13%	5	33%	8	53%	0	0%	15
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	51	15%	151	45%	120	35%	17	5%	339
	Mean =	17%	Mean =	49%	Mean =	33%			
Icelandic students	69	22%	4	1%	234	75%	3	1%	310



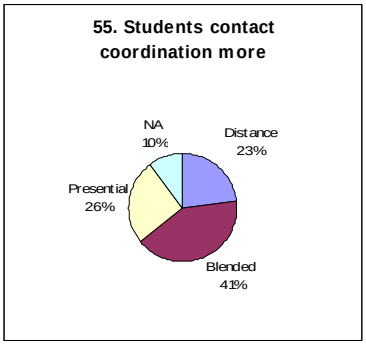


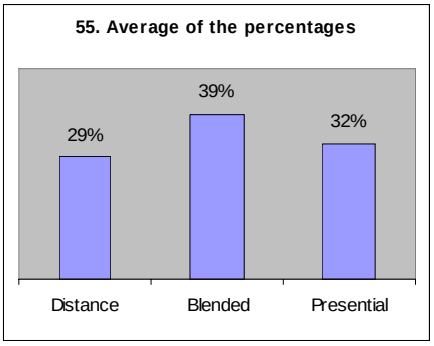
The question S63 was made to Students, Tutors and Administrators in order to know, in their opinions, which is the training modality where people share more information. Blended Learning got 45% of the answers, Presential Learning was chosen by 35% of the respondents and Distance Learning got 15%. The averages of the group percentages are consistent with those numbers. Presential Learning was chosen by an impressive percentage of the Icelandic students (75%).

Contact of students with the course coordination

Question:
A55. Students contact more the course coordination in…

55. Contact of students with the coordination	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	2	40%	2	40%	1	20%	0	0%	5
Spanish administrators	3	17%	8	44%	4	22%	3	17%	18
Italian administrators	2	40%	2	40%	1	20%	0	0%	5
French administrators	1	25%	2	50%	1	25%	0	0%	4
British administrators	0	0%	2	50%	2	50%	0	0%	4
Icelandic administrators	1	33%	0	0%	1	33%	1	33%	3
	9	23%	16	41%	10	26%	4	10%	39
	Mean =	29%	Mean =	39%	Mean =	32%			



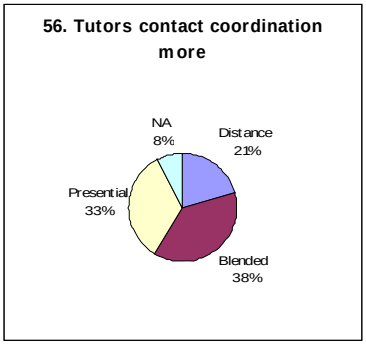


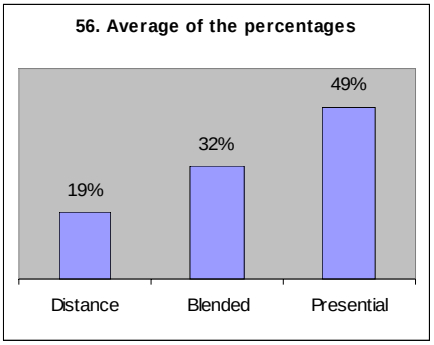
We asked the Administrators about the training modality where the course coordination receives more contacts from students (question A55): 41% declared to be Blended Learning, 26% declared to be Presential Learning and 23% declared to be Distance Learning.

Contact of tutors with the course coordination

Question:
A56. Tutors contact more the course coordination in…

56. Contact of tutors with the coordination	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	1	20%	2	40%	2	40%	0	0%	5
Spanish administrators	4	22%	9	50%	3	17%	2	11%	18
Italian administrators	1	20%	1	20%	3	60%	0	0%	5
French administrators	2	50%	2	50%	0	0%	0	0%	4
British administrators	0	0%	1	25%	3	75%	0	0%	4
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	8	21%	15	38%	13	33%	3	8%	39
	Mean =	19%	Mean =	32%	Mean =	49%			



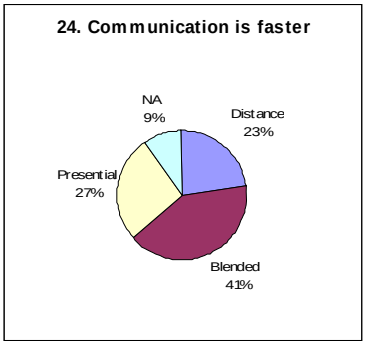


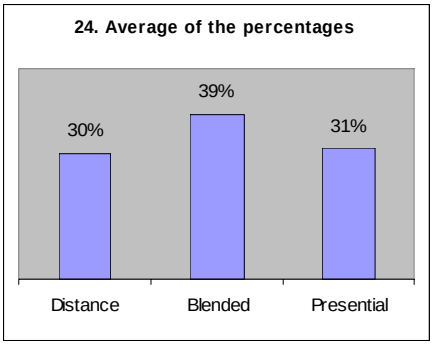
When asked about the training modality in which tutors contact the course coordination more (question A56) the Administrators expressed their opinions: 38% chose Blended Learning, 33% chose Presential Learning and 21% chose Distance Learning.

Communication speed

Question:
T24. Communication is faster through...

24. Communication speed	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	3	30%	3	30%	3	30%	1	10%	10
Spanish tutors	5	23%	9	41%	4	18%	4	18%	22
Italian tutors	5	56%	2	22%	1	11%	1	11%	9
French tutors	0	0%	4	100%	0	0%	0	0%	4
British tutors	2	14%	9	64%	3	21%	0	0%	14
Icelandic tutors	2	13%	3	20%	9	60%	1	7%	15
	17	23%	30	41%	20	27%	7	9%	74
	Mean =	30%	Mean =	39%	Mean =	31%			



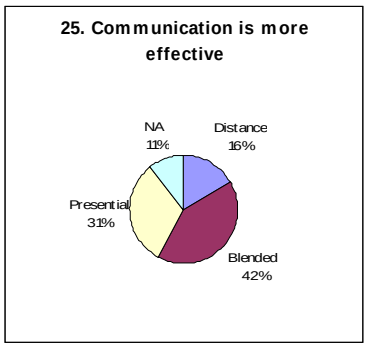


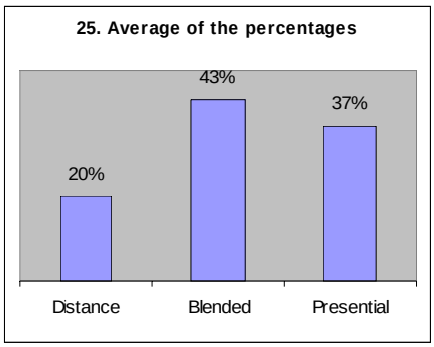
Tutors were asked about the training context where the communication is faster (question T24) and 41% pointed Blended Learning, 27% pointed Presential Learning and 23% picked Distance Learning.

Communication effectiveness

Question:
T25. Communication is more effective in...

25. Communication effectiveness	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	2	20%	4	40%	3	30%	1	10%	10
Spanish tutors	3	14%	11	50%	4	18%	4	18%	22
Italian tutors	2	22%	2	22%	4	44%	1	11%	9
French tutors	0	0%	3	75%	1	25%	0	0%	4
British tutors	0	0%	8	57%	5	36%	1	7%	14
Icelandic tutors	5	33%	3	20%	6	40%	1	7%	15
	12	16%	31	42%	23	31%	8	11%	74
	Mean =	20%	Mean =	43%	Mean =	37%			



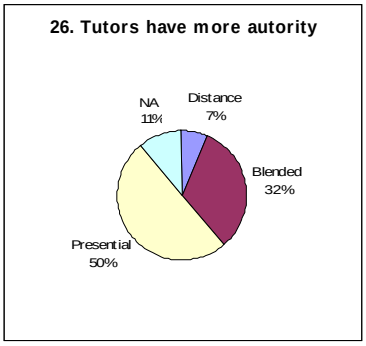


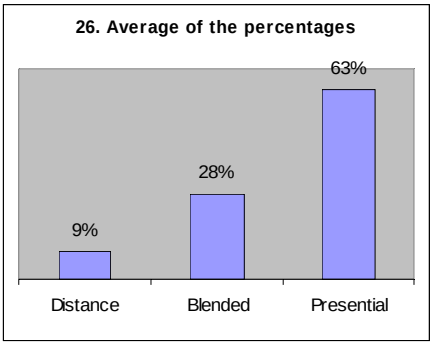
We also asked Tutors about the training modality where the communication is more effective (question T25). The responses showed a tendency similar to the previous variable: 42% of the Tutors chose Blended Learning, 31% chose Presential Learning and 16% chose Distance Learning.

Authority of the tutor over the students

Question:
T26. I feel more authority and control over students in...

26. Tutor authority	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	0	0%	1	10%	8	80%	1	10%	10
Spanish tutors	1	5%	9	41%	7	32%	5	23%	22
Italian tutors	2	22%	1	11%	5	56%	1	11%	9
French tutors	0	0%	4	100%	0	0%	0	0%	4
British tutors	0	0%	4	29%	10	71%	0	0%	14
Icelandic tutors	2	13%	5	33%	7	47%	1	7%	15
	5	7%	24	32%	37	50%	8	11%	74
	Mean = 9%		Mean = 28%		Mean = 63%				





In the question T26 we asked the Tutors about the training modality that makes them feel more authority over students. Most chose Presential Learning (50%), 32% chose Blended Learning and only 7% chose Distance Learning.

Attitudinal and Motivational Dimension

Through this study we also tried to understand how the respondents think and feel about the three learning modalities. The results clearly show that face-to-face contact is highly valued in everything concerning interpersonal relationships. Thus, we observed that Presential Learning is perceived as the most adequate for the development of positive attitudes on the students towards their peer colleagues and tutors. It's also the approach that seems to produce higher cohesion in the groups and more closeness between students and tutors. Nevertheless, Presential Learning is also the modality that respondents associated to the development of more formal relationships.

It is not clear which modality provides a more pleasant learning and working environment or which one motivates more the education and training professionals. The choices are distributed mainly between Presential and Blended Learning.

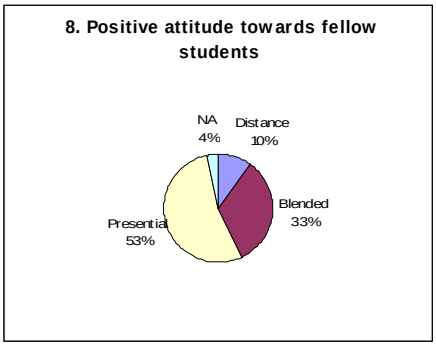
Most students seem to prefer the contents learned through a Blended approach and this is also the approach that receives the general preference of more than 50% of the respondents. Blended Learning is pointed out as the one that is more compatible with the respondents' lifestyle and is the one that motivates them the most for a lifelong learning attitude. Distance Learning is the least chosen in every variable except this last one.

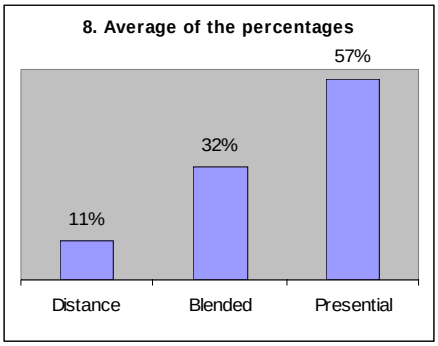
We interpret this strong preference for Blended Learning as a result of its semi-presential nature that simultaneously allows for the relational proximity through face-to-face contact and offers the flexibility of the activities that are free of space and time constraints.

Attitudes of students towards their peer colleagues

Question:
S8. I usually like my peer students more in...

8. Attitude towards fellow students	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	3	14%	5	24%	12	57%	1	5%	21
Spanish students	7	14%	11	22%	25	51%	6	12%	49
Italian students	12	13%	37	39%	45	47%	1	1%	95
French students	0	0%	22	37%	38	63%	0	0%	60
British students	0	0%	0	0%	1	100%	0	0%	1
	22	10%	75	33%	121	54%	8	4%	226
	Mean =	11%	Mean =	32%	Mean =	57%			
Icelandic students	91	29%	4	1%	201	65%	14	5%	310



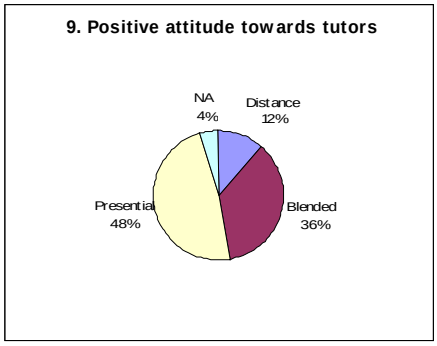


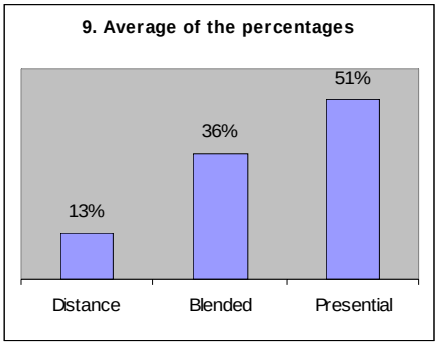
The students were asked about the learning modality where they usually develop a more positive attitude towards the peer colleagues (question S8). Most of them (54%) chose Presential Learning, 33% chose Blended Learning and 10% chose Distance Learning. Among the Icelandic Students 65% chose Presential Learning.

Attitudes of students towards their tutors

Question:
S9. I usually like my tutors more in...

9. Attitude towards tutors	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	3	14%	6	29%	10	48%	2	10%	21
Spanish students	8	16%	21	43%	15	31%	5	10%	49
Italian students	15	16%	41	43%	36	38%	3	3%	95
French students	0	0%	13	22%	47	78%	0	0%	60
British students	0	0%	0	0%	1	100%	0	0%	1
	26	12%	81	36%	109	48%	10	4%	226
	Mean =	13%	Mean =	36%	Mean =	51%			
Icelandic students	138	45%	5	2%	150	48%	17	5%	310



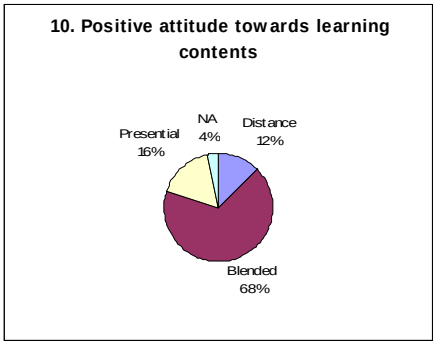


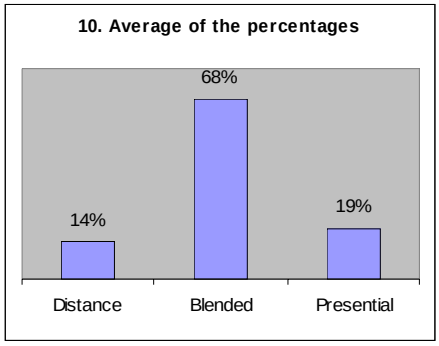
The S9 question is also directed to Students and aims to identify the training contexts in which they develop more positive attitudes towards the tutors. Most of the students (48%) pointed Presential Learning, 36% chose Blended Learning and only 12% chose Distance Learning.

Attitude of students towards the learning contents

Question:
S10. I usually like more the learning contents in...

10. Attitude towards learning contents	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	10	48%	6	29%	1	5%	21
Spanish students	8	16%	30	61%	6	12%	5	10%	49
Italian students	16	17%	59	62%	19	20%	1	1%	95
French students	0	0%	53	88%	6	10%	1	2%	60
British students	0	0%	1	100%	0	0%	0	0%	1
	28	12%	153	68%	37	16%	8	4%	226
	Mean =	14%	Mean =	68%	Mean =	19%			
Icelandic students	197	64%	9	3%	95	31%	9	3%	310





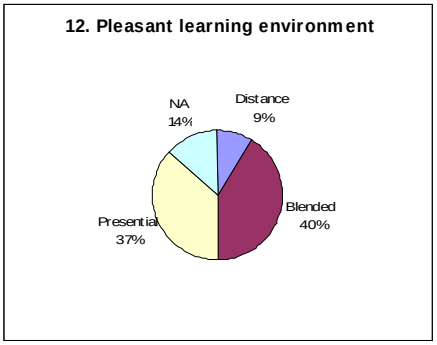
The opinion of the Students concerning the learning context that captivates them more through its learning contents is expressed in the answers to the question S10. These answers differ very much from those that had been observed in the previous two variables: the majority prefers the contents of Blended Learning (68%) leaving clearly behind the contents of Presential Learning (16%) and Distance Learning (12%). The Icelandic Students, on the other hand, show a clear preference for the contents of Distance Learning (64%).

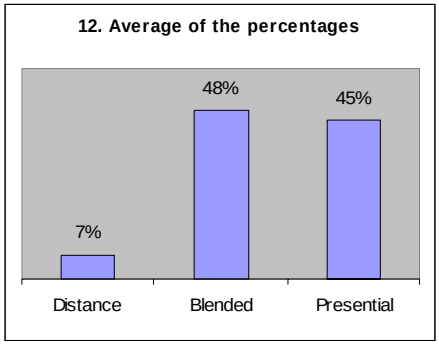
In short, when the object of the attitudes has a relational nature Students seem to value the face-to-face contact more, but when object of attitude has a different nature (learning contents, for example) the presential contact loses relevance. This tendency is also observed on the next variables.

Enjoyableness of the learning environment

Question:
S12. The learning environment is more pleasant in...

12. Enjoyable learning environment	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	2	10%	11	52%	6	29%	2	10%	21
Portuguese tutors	0	0%	7	70%	3	30%	0	0%	10
Portuguese administrators	0	0%	3	60%	2	40%	0	0%	5
Spanish students	7	14%	11	22%	26	53%	5	10%	49
Spanish tutors	0	0%	2	9%	1	5%	19	86%	22
Spanish administrators	1	6%	1	6%	0	0%	16	89%	18
Italian students	14	15%	37	39%	43	45%	1	1%	95
Italian tutors	0	0%	3	33%	5	56%	1	11%	9
Italian administrators	0	0%	3	60%	2	40%	0	0%	5
French students	2	3%	38	63%	19	32%	1	2%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
French administrators	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	1	7%	7	50%	6	43%	0	0%	14
British administrators	2	50%	2	50%	0	0%	0	0%	4
Icelandic tutors	1	7%	6	40%	8	53%	0	0%	15
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	30	9%	139	41%	124	37%	46	14%	339
	Mean =	7%	Mean =	48%	Mean =	45%			
Icelandic students	141	45%	8	3%	152	49%	9	3%	310



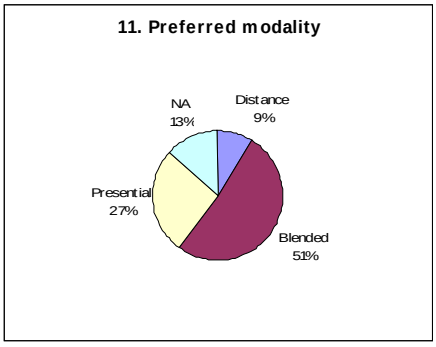


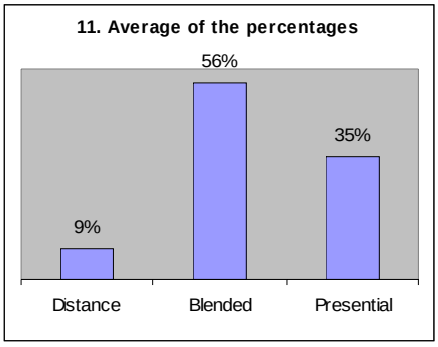
In order to know which modality provides a more enjoyable environment we asked Students, Tutors and Administrators (question S12). The percentage of the answers in Blended Learning (41%) does not differ substantially from the answers in Presential Learning (37%). Distance Learning receives only 9% of the answers. The Icelandic Students are divided between Presential Learning (49%) and Distance Learning (45%).

Preferred modality

Questions:
S11. I prefer to learn through... T11. I prefer to teach through... A11. I prefer to coordinate courses through…

11. Preferred modality	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	11	52%	5	24%	1	5%	21
Portuguese tutors	0	0%	8	80%	2	20%	0	0%	10
Portuguese administrators	1	20%	3	60%	1	20%	0	0%	5
Spanish students	9	18%	25	51%	10	20%	5	10%	49
Spanish tutors	1	5%	2	9%	0	0%	19	86%	22
Spanish administrators	1	6%	1	6%	0	0%	16	89%	18
Italian students	10	11%	59	62%	25	26%	1	1%	95
Italian tutors	1	11%	5	56%	3	33%	0	0%	9
Italian administrators	1	20%	3	60%	1	20%	0	0%	5
French students	0	0%	34	57%	24	40%	2	3%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
French administrators	1	25%	2	50%	1	25%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	0	0%	6	43%	8	57%	0	0%	14
British administrators	0	0%	3	75%	1	25%	0	0%	4
Icelandic tutors	1	7%	6	40%	8	53%	0	0%	15
Icelandic administrators	1	33%	0	0%	1	33%	1	33%	3
	31	9%	172	51%	91	27%	45	13%	339
	Mean =	9%	Mean =	56%	Mean =	35%			
Icelandic students	167	54%	7	2%	132	43%	4	1%	310



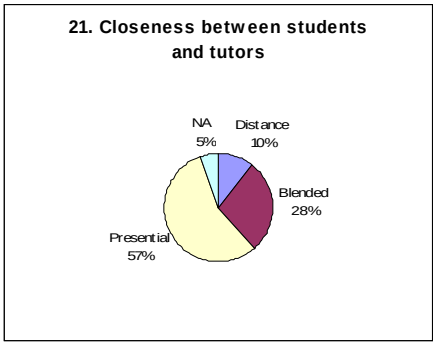


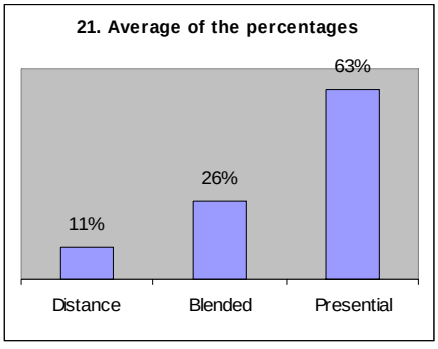
When asked about their preferred modality (questions S11, T11 and A11), most Students, Tutors and Administrators chose Blended Learning (51%), 27% chose Presential and, just 9% chose Distance Learning. Among the Icelandic Students those that prefer Distance Learning (54%) are in bigger number than those that prefer Presential Learning (43%).

Closeness between students and tutors

Questions:
S21. I feel closer to the tutors when I learn through... T21. My closeness with students is higher in...

21. Proximity between students and tutors	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	2	10%	2	10%	15	71%	2	10%	21
Portuguese tutors	0	0%	2	20%	6	60%	2	20%	10
Spanish students	3	6%	17	35%	24	49%	5	10%	49
Spanish tutors	2	9%	6	27%	8	36%	6	27%	22
Italian students	18	19%	34	36%	42	44%	1	1%	95
Italian tutors	3	33%	2	22%	4	44%	0	0%	9
French students	1	2%	11	18%	48	80%	0	0%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	0	0%	3	21%	11	79%	0	0%	14
Icelandic tutors	2	13%	4	27%	9	60%	0	0%	15
	31	10%	85	28%	168	56%	16	5%	300
	Mean =	11%	Mean =	26%	Mean =	63%			
Icelandic students	109	35%	4	1%	192	62%	5	2%	310



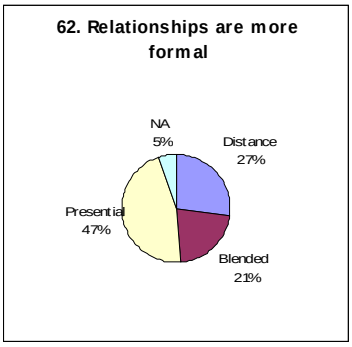


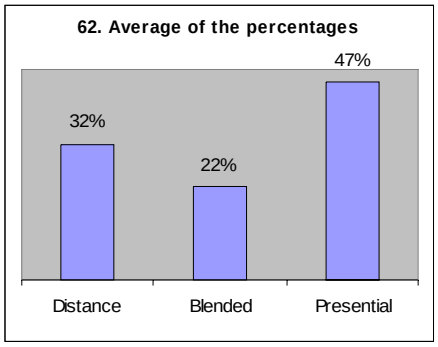
In order to know the opinions of Students and Tutors about the context that favours more the closeness between them we made the questions S21 and T21. There are no significant differences in the opinions expressed by Students and Tutors. The majority chose Presential Learning (56%). Blended Learning received 28% of the answers and Distance Learning just got 10%. Most Icelandic Students also chose Presential Learning (62%).

Formality of the relationships

Question:
S62. Relationships are more formal in...

62. Relationships formality	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	11	52%	1	5%	7	33%	2	10%	21
Portuguese tutors	2	20%	2	20%	5	50%	1	10%	10
Portuguese administrators	3	60%	2	40%	0	0%	0	0%	5
Spanish students	12	24%	16	33%	16	33%	5	10%	49
Spanish tutors	3	14%	8	36%	7	32%	4	18%	22
Spanish administrators	1	6%	4	22%	10	56%	3	17%	18
Italian students	38	40%	14	15%	43	45%	0	0%	95
Italian tutors	4	44%	1	11%	4	44%	0	0%	9
Italian administrators	1	20%	1	20%	3	60%	0	0%	5
French students	0	0%	17	28%	43	72%	0	0%	60
French tutors	1	25%	2	50%	1	25%	0	0%	4
French administrators	0	0%	0	0%	3	75%	1	25%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	4	29%	3	21%	7	50%	0	0%	14
British administrators	1	25%	0	0%	3	75%	0	0%	4
Icelandic tutors	10	67%	1	7%	3	20%	1	7%	15
Icelandic administrators	1	33%	0	0%	1	33%	1	33%	3
	92	27%	72	21%	157	46%	18	5%	339
	Mean =	32%	Mean =	22%	Mean =	47%			
Icelandic students	213	69%	6	2%	81	26%	10	3%	310



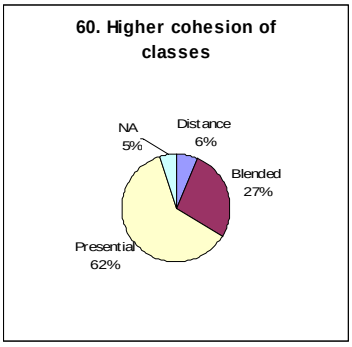


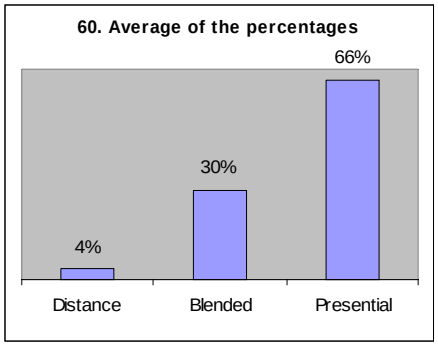
Students, Tutors and Administrators were asked about the training modality where the relationships are more formal (question S62) and 46% answered that it is in Presential Learning, 27% answered that it is in Distance Learning and 21% declared to be in Blended Learning. Icelandic Students seem to have a different opinion since 69% answered that Distance Learning produces more formal relationships.

Class cohesion

Question:
S60. Classes are more cohesive in...

60. Cohesion of classes	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	2	10%	7	33%	11	52%	1	5%	21
Portuguese tutors	0	0%	2	20%	7	70%	1	10%	10
Portuguese administrators	0	0%	2	40%	3	60%	0	0%	5
Spanish students	5	10%	9	18%	29	59%	6	12%	49
Spanish tutors	0	0%	9	41%	8	36%	5	23%	22
Spanish administrators	1	6%	5	28%	12	67%	0	0%	18
Italian students	13	14%	23	24%	58	61%	1	1%	95
Italian tutors	0	0%	2	22%	7	78%	0	0%	9
Italian administrators	0	0%	3	60%	2	40%	0	0%	5
French students	0	0%	14	23%	46	77%	0	0%	60
French tutors	0	0%	3	75%	1	25%	0	0%	4
French administrators	1	25%	2	50%	1	25%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	0	0%	5	36%	9	64%	0	0%	14
British administrators	0	0%	2	50%	2	50%	0	0%	4
Icelandic tutors	0	0%	5	33%	9	60%	1	7%	15
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	22	6%	93	27%	208	61%	16	5%	339
	Mean = 4%		Mean = 30%		Mean = 66%				
Icelandic students	55	18%	6	2%	234	75%	15	5%	310



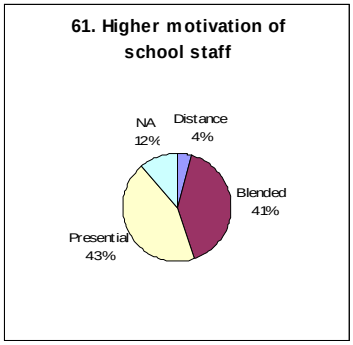


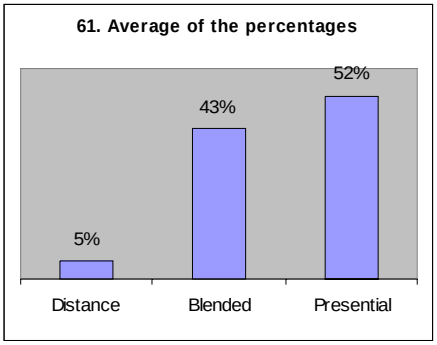
The question S60 was placed to Students, Tutors and Administrators with the aim of knowing their opinions concerning the learning context that produces more cohesion into groups. The answers show a clear tendency: 61% affirmed to be Presential Learning while Blended Learning and Distance Learning got only 27% and 6% of the answers respectively. The Icelandic Students showed the same tendency: 75% chose Presential Learning.

Motivation of the education/training staff

Question:
T61. Schools professionals are more motivated in...

61. Motivation of school staff	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	0	0%	3	30%	7	70%	0	0%	10
Portuguese administrators	0	0%	2	40%	3	60%	0	0%	5
Spanish tutors	2	9%	8	36%	7	32%	5	23%	22
Spanish administrators	2	11%	7	39%	7	39%	2	11%	18
Italian tutors	0	0%	3	33%	5	56%	1	11%	9
Italian administrators	0	0%	3	60%	2	40%	0	0%	5
French tutors	0	0%	3	75%	1	25%	0	0%	4
French administrators	0	0%	2	50%	1	25%	1	25%	4
British tutors	0	0%	9	64%	5	36%	0	0%	14
British administrators	0	0%	2	50%	2	50%	0	0%	4
Icelandic tutors	1	7%	4	27%	7	47%	3	20%	15
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	5	4%	46	41%	49	43%	13	12%	113
	Mean = 5%		Mean = 43%		Mean = 52%				



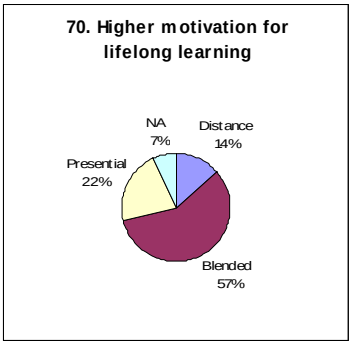


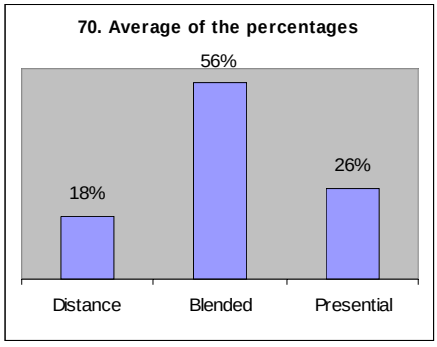
The question T61 was made to Tutors and Administrators in order to know, in their opinion, which training modality is more motivating for education and training staff. The answers are almost equally distributed through Presential Learning (43%) and Blended Learning (41%). Only 4% of the respondents chose Distance Learning.

Motivation for lifelong learning

Questions:
S70. I feel more motivated to learn through all my life when I learn through... T70. Positive attitude towards lifelong learning is better promoted through...

70. Motivation for Lifelong Learning	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	13	62%	3	14%	1	5%	21
Portuguese tutors	2	20%	5	50%	3	30%	0	0%	10
Portuguese administrators	0	0%	4	80%	1	20%	0	0%	5
Spanish students	5	10%	22	45%	13	27%	9	18%	49
Spanish tutors	7	32%	9	41%	2	9%	4	18%	22
Spanish administrators	3	17%	8	44%	4	22%	3	17%	18
Italian students	15	16%	59	62%	20	21%	1	1%	95
Italian tutors	4	44%	1	11%	2	22%	2	22%	9
Italian administrators	1	20%	4	80%	0	0%	0	0%	5
French students	0	0%	49	82%	10	17%	1	2%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
French administrators	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	0	0%	6	43%	8	57%	0	0%	14
British administrators	1	25%	1	25%	2	50%	0	0%	4
Icelandic tutors	4	27%	6	40%	3	20%	2	13%	15
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	46	14%	195	58%	74	22%	24	7%	339
	Mean =	18%	Mean =	56%	Mean =	26%			
Icelandic students	182	59%	10	3%	110	35%	8	3%	310



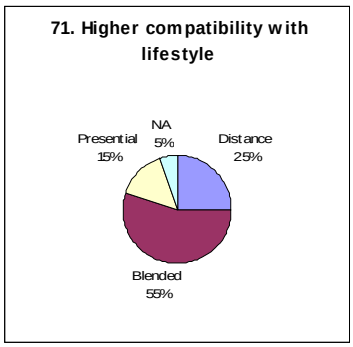


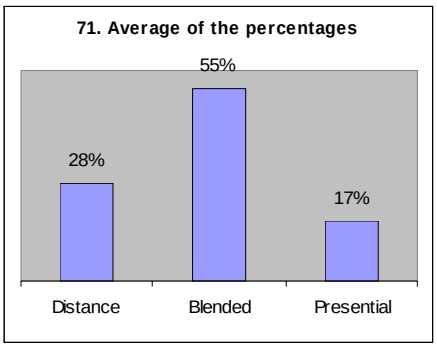
The question S70 was made to the Students and the question T70 was made to the Tutors and Administrators. The intention was to get their opinions about the modality that motivates people more to adopt a lifelong learning attitude. Blended Learning was chosen by 58% of the respondents. Presential and Distance Learning modalities got 22% and 14% of the answers, respectively. The Icelandic Students chose mainly Distance Learning (59%).

Compatibility with lifestyle

Question:
S71. My lifestyle is more compatible with...

71. Compatibility with lifestyle	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	7	33%	13	62%	0	0%	1	5%	21
Portuguese tutors	3	30%	6	60%	1	10%	0	0%	10
Portuguese administators	1	20%	3	60%	1	20%	0	0%	5
Spanish students	20	41%	21	43%	3	6%	5	10%	49
Spanish tutors	8	36%	7	32%	3	14%	4	18%	22
Spanish administrators	7	39%	6	33%	3	17%	2	11%	18
Italian students	22	23%	53	56%	19	20%	1	1%	95
Italian tutors	4	44%	2	22%	1	11%	2	22%	9
Italian administrators	2	40%	2	40%	1	20%	0	0%	5
French students	3	5%	51	85%	5	8%	1	2%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	2	14%	8	57%	4	29%	0	0%	14
British administrators	2	50%	2	50%	0	0%	0	0%	4
Icelandic tutors	2	13%	6	40%	6	40%	1	7%	15
Icelandic administrators	1	33%	0	0%	1	33%	1	33%	3
	84	25%	184	55%	49	15%	18	5%	335
	Mean = 28%		Mean = 55%		Mean = 17%				
Icelandic students	219	71%	8	3%	79	25%	4	1%	310





All the respondents expressed about the modality that is more compatible with their lifestyles (question S71) and, once more, Blended Learning was the preferred one (55%). Distance Learning comes in the second place (25%) and the less chosen was Presential Learning (15%). The Icelandic Students opted, in majority, for Distance Learning (71%).

Economical Dimension

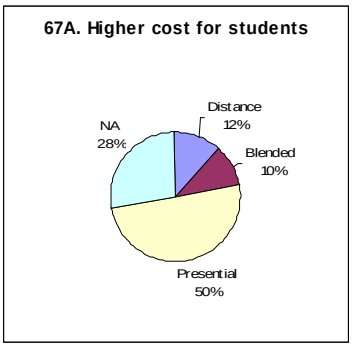
Market is a determinant factor for the growth or extinction of any type of product or service and the training approaches are not an exception. The costs that students associate to some training modalities determine the demand and the costs perceived by schools determine the offer. So we also decided to understand how Presential, Blended and Distance Learning are perceived from an economical perspective.

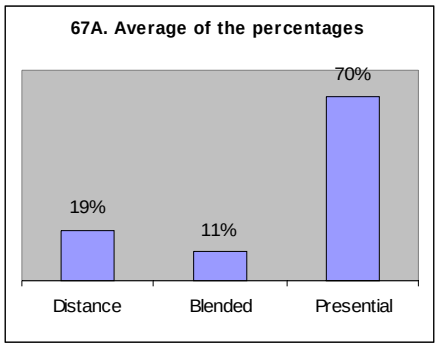
The perception of the costs favours Distance Learning and Blended Learning. For the Students the modality most expensive is Presential Learning and the relation between quality and costs is seen as more favourable in Blended Learning. There is no consensus between respondents on the estimated costs of content production, but most of them assert that Distance Learning involves more expensive contents. Another aspect where Distance Learning is perceived as expensive is in the adaptation of the tutors. On the other hand the cost of education, the cost of the pedagogical resources, the costs of management and the return over the investment are considered to me more favourable to Distance Learning.

Cost for the students

Question:
S67A. The costs of learning are higher in...

67A. Cost for students	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	4	19%	2	10%	14	67%	1	5%	21
Portuguese tutors	0	0%	0	0%	10	100%	0	0%	10
Portuguese administrators	0	0%	0	0%	5	100%	0	0%	5
Spanish students	0	0%	1	2%	5	10%	43	88%	49
Spanish tutors	0	0%	1	5%	2	9%	19	86%	22
Spanish administrators	0	0%	0	0%	2	11%	16	89%	18
Italian students	21	22%	17	18%	50	53%	7	7%	95
Italian tutors	2	22%	1	11%	5	56%	1	11%	9
Italian administrators	3	60%	0	0%	2	40%	0	0%	5
French students	0	0%	8	13%	51	85%	1	2%	60
French tutors	0	0%	1	25%	2	50%	1	25%	4
French administrators	0	0%	0	0%	2	50%	2	50%	4
British students	0	0%	1	100%	0	0%	0	0%	1
British tutors	2	14%	2	14%	10	71%	0	0%	14
British administrators	0	0%	0	0%	4	100%	0	0%	4
Icelandic tutors	7	47%	1	7%	4	27%	3	20%	15
Icelandic administrators	1	33%	0	0%	2	67%	0	0%	3
	40	12%	35	10%	170	50%	94	28%	339
	Mean =	19%	Mean =	11%	Mean =	70%			
Icelandic students	237	76%	6	2%	57	18%	10	3%	310



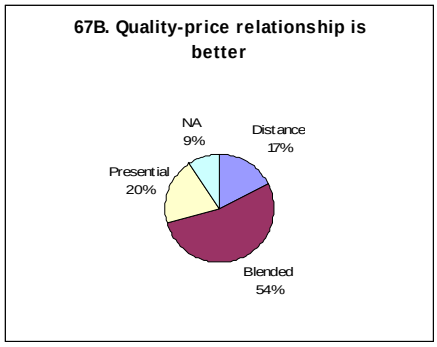


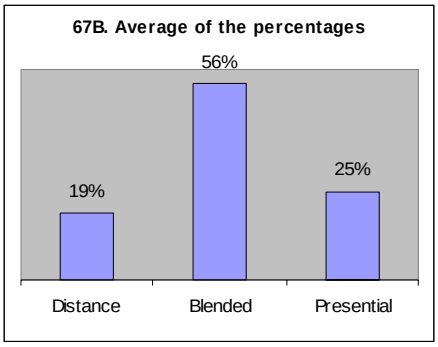
We wanted to know the perception of the respondents concerning the costs of each modality for Students (question S67A): 50% of the respondents affirmed that Presential Learning is the most expensive; only 12% and 10% of the respondents considered Distance and Blended Learning the most expensive modalities.
It is noteworthy that 28% of the respondents didn't answer this question. Maybe not many people feel able to give an opinion about this issue. There was 76% of the Icelandic Students considering Distance Learning the most expensive for Students.

The quality-price relationship

Question:
S67B. The price/quality relationship is better in…

67B. Quality-price relationship	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	5	24%	13	62%	2	10%	1	5%	21
Portuguese tutors	2	20%	6	60%	2	20%	0	0%	10
Portuguese administrators	0	0%	4	80%	1	20%	0	0%	5
Spanish students	9	18%	22	45%	10	20%	8	16%	49
Spanish tutors	6	27%	10	45%	2	9%	4	18%	22
Spanish administrators	3	17%	10	56%	3	17%	2	11%	18
Italian students	21	22%	44	46%	23	24%	7	7%	95
Italian tutors	5	56%	2	22%	0	0%	2	22%	9
Italian administrators	2	40%	3	60%	0	0%	0	0%	5
French students	0	0%	51	85%	8	13%	1	2%	60
French tutors	1	25%	3	75%	0	0%	0	0%	4
French administrators	1	25%	3	75%	0	0%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	2	14%	4	29%	8	57%	0	0%	14
British administrators	1	25%	1	25%	2	50%	0	0%	4
Icelandic tutors	1	7%	4	27%	4	27%	6	40%	15
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	59	17%	180	53%	68	20%	32	9%	339
	Mean = 19%		Mean = 56%		Mean = 25%				
Icelandic students	125	40%	9	3%	145	47%	31	10%	310



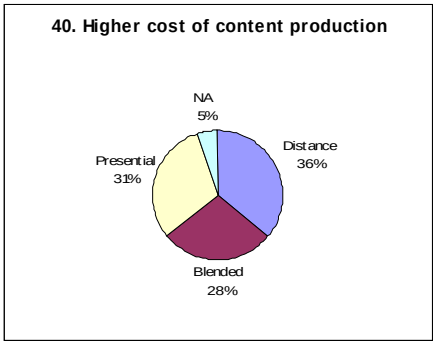


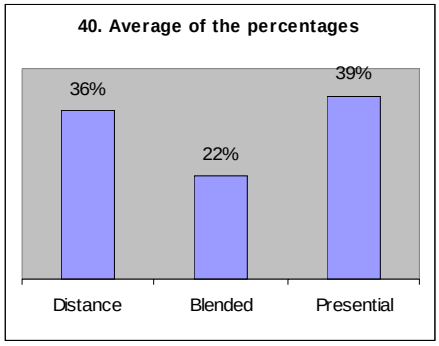
The question S67B is intended to collect the perception of the Students, Tutors and Administrators concerning the modality that offers a better quality-price relationship. Blended Learning was the most chosen (53%) against 20% for Presential Learning and 17% for Distance Learning.

Cost of content production

Question:
A40. The costs of content creation are higher in…

40. Costs of content production	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	3	60%	0	0%	2	40%	0	0%	5
Spanish administrators	3	17%	7	39%	6	33%	2	11%	18
Italian administrators	2	40%	3	60%	0	0%	0	0%	5
French administrators	4	100%	0	0%	0	0%	0	0%	4
British administrators	0	0%	1	25%	3	75%	0	0%	4
Icelandic administrators	2	67%	0	0%	1	33%	0	0%	3
	14	**36%**	11	28%	12	31%	2	5%	39
	Mean =	36%	Mean =	22%	Mean =	39%			



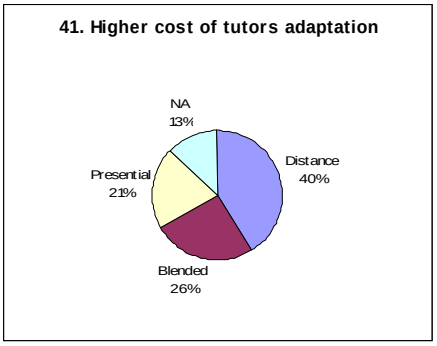


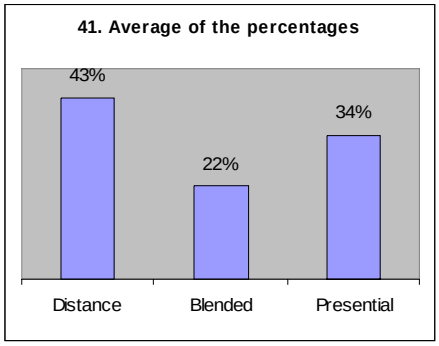
We asked the Administrators about the training modality that, in their opinion, involves higher costs for content production (question A40) and the answers are not conclusive: 36% affirmed to be Distance Learning, 31% pointed to Presential and 28% pointed to Blended Learning.

Costs of tutor adaptation

Question:
A41. The costs of tutor adaptation are higher in…

41. Costs of tutor adaptation	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	5	100%	0	0%	0	0%	0	0%	5
Spanish administrators	6	33%	6	33%	2	11%	4	22%	18
Italian administrators	1	20%	2	40%	2	40%	0	0%	5
French administrators	1	25%	2	50%	0	0%	1	25%	4
British administrators	1	25%	0	0%	3	75%	0	0%	4
Icelandic administrators	2	67%	0	0%	1	33%	0	0%	3
	16	41%	10	26%	8	21%	5	13%	39
	Mean =	43%	Mean =	22%	Mean =	34%			



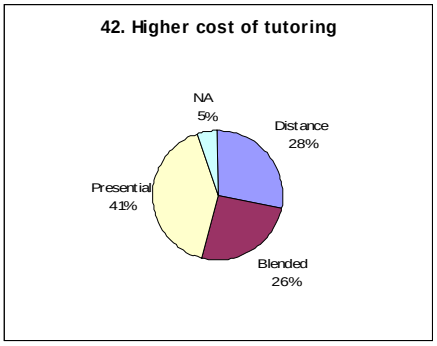


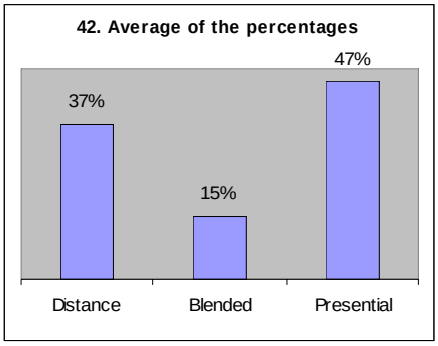
According to 41% of the inquired Administrators, the adaptation of the tutors is more expensive (question A41) for Distance Learning; 26% considered Blended Learning as the one that involves higher costs for tutor adaptation and 21% pointed out Presential Learning as the most expensive on that issue.

Costs of tutoring

Question:
A42. The costs of tutoring are higher in…

42. Tutoring costs	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	1	20%	1	20%	3	60%	0	0%	5
Spanish administrators	3	17%	7	39%	6	33%	2	11%	18
Italian administrators	4	80%	0	0%	1	20%	0	0%	5
French administrators	2	50%	2	50%	0	0%	0	0%	4
British administrators	0	0%	0	0%	4	100%	0	0%	4
Icelandic administrators	1	33%	0	0%	2	67%	0	0%	3
	11	28%	10	26%	16	41%	2	5%	39
	Mean =	37%	Mean =	15%	Mean =	47%			



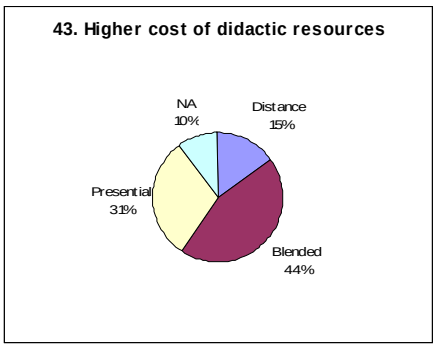


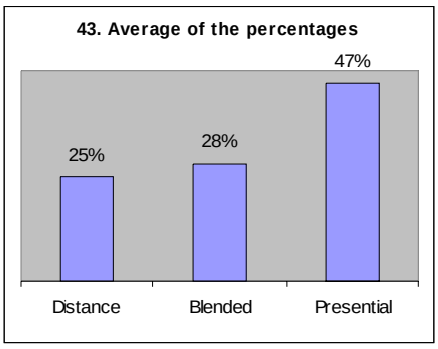
The costs of tutoring (question A42) are, according to 41% of the inquired Administrators, higher in Presential Learning; 28% considered them higher in Distance Learning and 26% considered it higher in Blended Learning.

Cost of the didactic resources

Question:
A43. The costs are higher for the resources required for…

43. Resources cost	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	1	20%	1	20%	3	60%	0	0%	5
Spanish administrators	0	0%	10	56%	5	28%	3	17%	18
Italian administrators	1	20%	3	60%	0	0%	1	20%	5
French administrators	3	75%	0	0%	1	25%	0	0%	4
British administrators	0	0%	3	75%	1	25%	0	0%	4
Icelandic administrators	1	33%	0	0%	2	67%	0	0%	3
	6	15%	17	44%	12	31%	4	10%	39
	Mean =	25%	Mean =	28%	Mean =	47%			



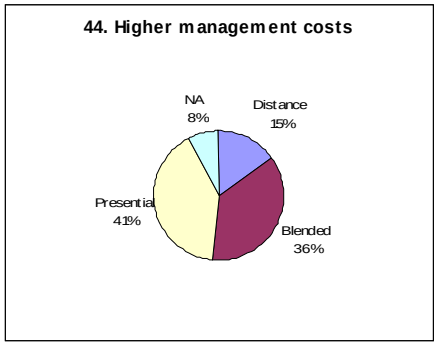


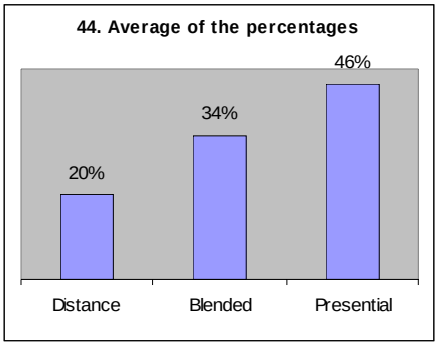
The modality that involves more expensive resources (question A43) is, according to 44% of the inquired Administrators, Blended Learning and, according to 31% is Presential Learning while according to 15% is Distance Learning.

Management costs

Question:
A44. Management costs are higher in…

44. Costs of management	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	1	20%	3	60%	1	20%	0	0%	5
Spanish administrators	1	6%	7	39%	7	39%	3	17%	18
Italian administrators	2	40%	1	20%	2	40%	0	0%	5
French administrators	1	25%	3	75%	0	0%	0	0%	4
British administrators	0	0%	0	0%	4	100%	0	0%	4
Icelandic administrators	1	33%	0	0%	2	67%	0	0%	3
	6	15%	14	36%	16	41%	3	8%	39
	Mean =	20%	Mean =	34%	Mean =	46%			



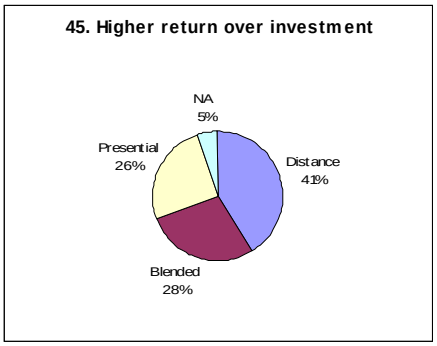


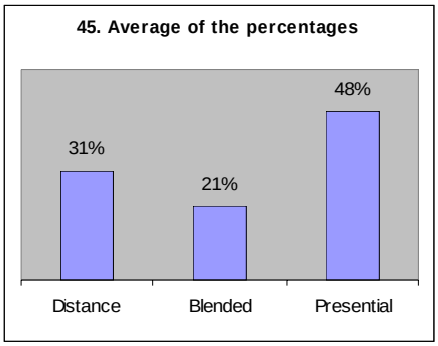
Management is (question A44), in the opinion of 41% of the inquired Administrators, more expensive in Presential Learning, in the opinion of 36% is more expensive in Blended Learning and in the opinion of 15% is more costly in Distance Learning.

Return over the investment

Question:
A45. The ROI is higher in…

45. Return over investment	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	4	80%	1	20%	0	0%	0	0%	5
Spanish administrators	8	44%	6	33%	3	17%	1	6%	18
Italian administrators	2	40%	2	40%	1	20%	0	0%	5
French administrators	1	25%	1	25%	2	50%	0	0%	4
British administrators	0	0%	1	25%	2	50%	1	25%	4
Icelandic administrators	1	33%	0	0%	2	67%	0	0%	3
	16	41%	11	28%	10	26%	2	5%	39
	Mean = 31%		Mean = 21%		Mean = 48%				





According to 41% of the Administrators, the return over the investment (ROI) (question A45) is higher in Distance Learning; 28% of the respondents consider that Blended Learning is more profitable and 26% consider it higher in Presential Learning.

Dimension of Social Representations

Among the factors the influence the positioning of a product or service in the market its public image or the social representation plays an extremely important role. That is the reason why we tried to know from our respondents what do they think that are the social representations of each modality for the general public.

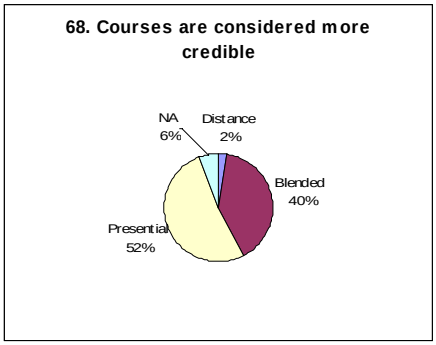
Our respondents clearly showed the dominant position of Presential Learning on this issue. This modality seems to be perceived as more credible, as better ensuring the students employment and as conferring a better reputation to the schools. Still according to majority of the respondents, employers prefer that their collaborators get training through Presential Learning and the skills acquired through this type of learning are also more recognized.

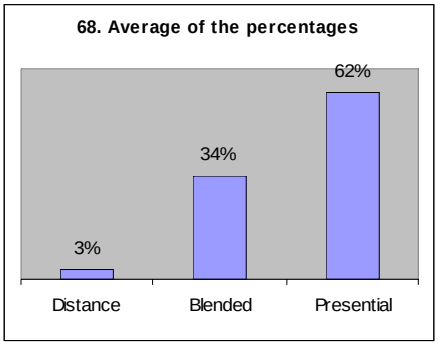
It is also noteworthy that Blended Learning has a more positive representation than Distance Learning in all the variables.

The courses' credibility

Question:
S68. The courses' credibility is higher in…

68. Courses credibility	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	0	0%	4	19%	16	76%	1	5%	21
Portuguese tutors	0	0%	1	10%	9	90%	0	0%	10
Portuguese administrators	0	0%	0	0%	5	100%	0	0%	5
Spanish students	0	0%	14	29%	28	57%	7	14%	49
Spanish tutors	0	0%	8	36%	10	45%	4	18%	22
Spanish administrators	1	6%	6	33%	8	44%	3	17%	18
Italian students	3	3%	39	41%	51	54%	2	2%	95
Italian tutors	1	11%	3	33%	3	33%	2	22%	9
Italian administrators	0	0%	3	60%	2	40%	0	0%	5
French students	0	0%	46	77%	14	23%	0	0%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
French administrators	0	0%	2	50%	1	25%	1	25%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	2	14%	2	14%	10	71%	0	0%	14
British administrators	0	0%	0	0%	4	100%	0	0%	4
Icelandic tutors	1	7%	4	27%	9	60%	1	7%	15
Icelandic administrators	0	0%	0	0%	3	100%	0	0%	3
	8	2%	136	40%	174	51%	21	6%	339
	Mean = 3%		Mean = 34%		Mean = 62%				
Icelandic students	82	26%	7	2%	197	64%	24	8%	310

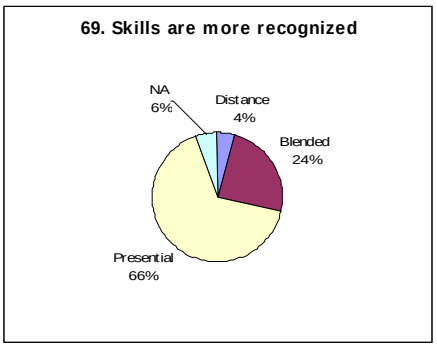


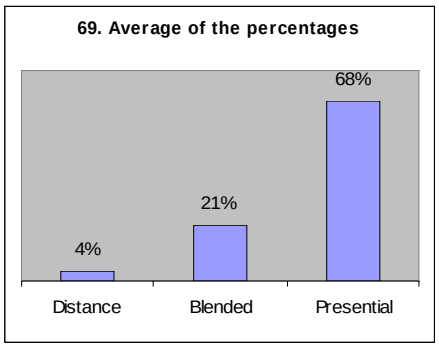


The question S68 asks the Students', Tutors' and Administrators' opinion about the modality that offers courses with bigger credibility. Presential Learning was the one that received more answers (51%), followed by Blended Learning (40%). Only 2% of the respondents chose Distance Learning. The Icelandic Students had also privileged Presential Learning (64%) but 26% had recognized in Distance Learning the modality that offers the most credible courses.

Questions:
S69. We get more recognition if our qualifications are obtained through… T69. Students get more recognition if their qualifications are obtained through...

69. Recognition of skills	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	0	0%	6	29%	14	67%	1	5%	21
Portuguese tutors	0	0%	4	40%	6	60%	0	0%	10
Portuguese administrators	0	0%	0	0%	5	100%	0	0%	5
Spanish students	2	4%	9	18%	32	65%	6	12%	49
Spanish tutors	1	5%	7	32%	11	50%	3	14%	22
Spanish administrators	4	22%	5	28%	8	44%	1	6%	18
Italian students	6	6%	35	37%	53	56%	1	1%	95
Italian tutors	0	0%	1	11%	7	78%	1	11%	9
Italian administrators	0	0%	3	60%	2	40%	0	0%	5
French students	0	0%	4	7%	55	92%	1	2%	60
French tutors	0	0%	2	50%	2	50%	0	0%	4
French administrators	0	0%	0	0%	3	75%	1	25%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	0	0%	4	29%	10	71%	0	0%	14
British administrators	0	0%	2	50%	2	50%	0	0%	4
Icelandic tutors	1	7%	1	7%	9	60%	4	27%	15
Icelandic administrators	1	33%	0	0%	2	67%	0	0%	3
	15	4%	83	24%	222	65%	19	6%	339
	Mean = 4%		Mean = 21%		Mean = 68%				
Icelandic students	47	15%	5	2%	228	74%	30	10%	310



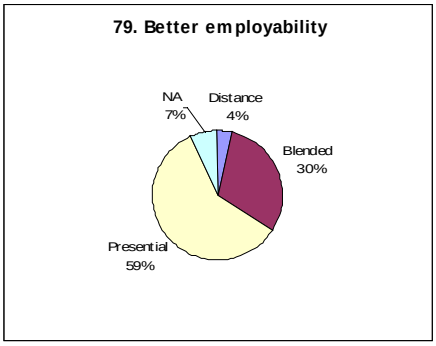


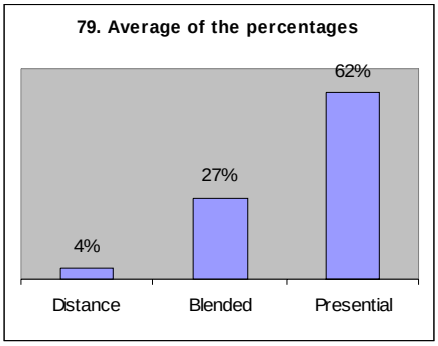
In the questions S69 and T69 we got the Students', Tutors' and Administrators' perceptions of how the skills developed through the different training modalities are publicly recognized. Presential Learning leaded with 65% of the answers, Blended Learning came in second but with a much lower number of answers (24%) and finally, Distance Learning is the less recognized (4%).
Among the Icelandic Students, 74% also said that the skills obtained through Presential Learning are more recognised.

Employability

Question:
S79. Employability is higher for those that learned through…

79. Employability	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	0	0%	9	43%	11	52%	1	5%	21
Portuguese tutors	0	0%	4	40%	6	60%	0	0%	10
Portuguese administrators	0	0%	0	0%	5	100%	0	0%	5
Spanish students	2	4%	11	22%	27	55%	9	18%	49
Spanish tutors	2	9%	6	27%	9	41%	5	23%	22
Spanish administrators	4	22%	4	22%	10	56%	0	0%	18
Italian students	4	4%	50	53%	41	43%	0	0%	95
Italian tutors	0	0%	3	33%	4	44%	2	22%	9
Italian administrators	0	0%	3	60%	2	40%	0	0%	5
French students	0	0%	2	3%	58	97%	0	0%	60
French tutors	0	0%	1	25%	2	50%	1	25%	4
French administrators	0	0%	1	25%	2	50%	1	25%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	0	0%	5	36%	9	64%	0	0%	14
British administrators	0	0%	1	25%	3	75%	0	0%	4
Icelandic tutors	0	0%	3	20%	9	60%	3	20%	15
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	12	4%	103	30%	201	59%	23	7%	339
	Mean = 4%		Mean = 27%		Mean = 62%				
Icelandic students	46	15%	13	4%	218	70%	33	11%	310



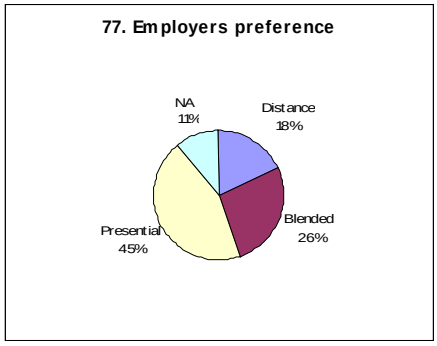


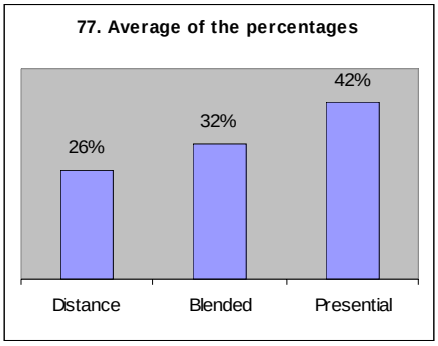
Concerning the modality that ensures better employability to students (question S79), 59% of the respondents chose Presential Learning, 30% chose Blended Learning and only 4% chose Distance Learning. The majority of Icelandic Students also chose Presential Learning (70%).

Employers' preferred modality for the training of their workers

Question:
S77. Employers prefer to train their workers through…

77. Employers preference	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	2	10%	4	19%	4	19%	11	52%	21
Portuguese tutors	3	30%	1	10%	6	60%	0	0%	10
Portuguese administrators	1	20%	2	40%	2	40%	0	0%	5
Spanish students	15	31%	16	33%	11	22%	7	14%	49
Spanish tutors	7	32%	8	36%	3	14%	4	18%	22
Spanish administrators	3	17%	9	50%	4	22%	2	11%	18
Italian students	17	18%	33	35%	41	43%	4	4%	95
Italian tutors	2	22%	1	11%	5	56%	1	11%	9
Italian administrators	1	20%	3	60%	1	20%	0	0%	5
French students	0	0%	4	7%	56	93%	0	0%	60
French tutors	0	0%	1	25%	2	50%	1	25%	4
French administrators	0	0%	0	0%	3	75%	1	25%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	4	29%	3	21%	6	43%	1	7%	14
British administrators	2	50%	1	25%	1	25%	0	0%	4
Icelandic tutors	4	27%	3	20%	3	20%	5	33%	15
Icelandic administrators	1	33%	0	0%	1	33%	1	33%	3
	62	18%	89	26%	150	44%	38	11%	339
	Mean = 26%		Mean = 32%		Mean = 42%				
Icelandic students	122	39%	16	5%	82	26%	90	29%	310





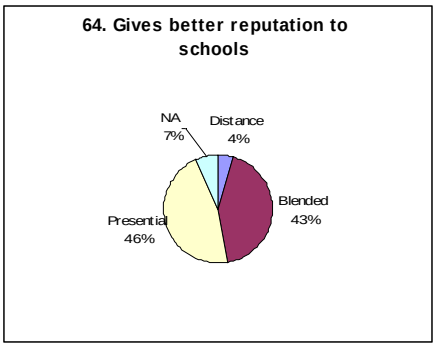
Through the question S77 we tried to know what Students, Tutors and Administrators think about the training modality that employers prefer when it comes to provide training for their workers. Most respondents (44%) said that Presential Learning is still the most preferred, while 26% chose Distance Learning and 18% chose Blended Learning.
We got more answers from Icelandic Students on Distance Learning (39%) than on Presential Learning (26%).

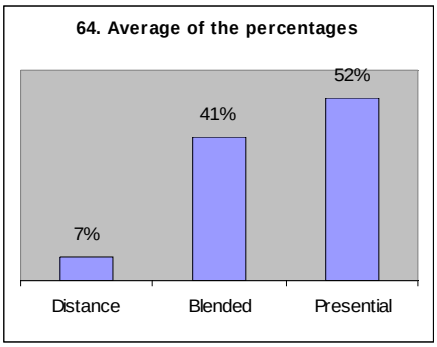
Reputation obtained by schools

Question:
S64. Schools get better reputation from…

64. School reputation	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	2	10%	7	33%	11	52%	1	5%	21
Portuguese tutors	0	0%	3	30%	7	70%	0	0%	10
Portuguese administrators	0	0%	0	0%	5	100%	0	0%	5
Spanish students	0	0%	14	29%	28	57%	7	14%	49
Spanish tutors	3	14%	9	41%	6	27%	4	18%	22
Spanish administrators	4	22%	6	33%	8	44%	0	0%	18
Italian students	4	4%	30	32%	58	61%	3	3%	95
Italian tutors	0	0%	3	33%	5	56%	1	11%	9
Italian administrators	0	0%	4	80%	1	20%	0	0%	5
French students	0	0%	54	90%	5	8%	1	2%	60
French tutors	0	0%	4	100%	0	0%	0	0%	4
French administrators	0	0%	3	75%	0	0%	1	25%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	1	7%	5	36%	8	57%	0	0%	14
British administrators	0	0%	0	0%	4	100%	0	0%	4
Icelandic tutors	0	0%	3	20%	7	47%	5	33%	15
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	14	4%	145	43%	156	46%	24	7%	339
	Mean = 7%		Mean = 41%		Mean = 52%				
Icelandic students	127	41%	10	3%	147	47%	26	8%	310

The question S64 evaluates the perception of the respondents about the modality that confers a better reputation to schools. The answers are divided: 46% of the choices fall once more on Presential Learning but 43% of the answers go to the Blended category. Only 4% chose Distance Learning.





The averages of the group percentages show a larger gap between the two options that were more voted (52% and 41% respectively). Thus the results indicate that Presential Learning still grants more prestige to the schools. The exception is, perhaps, the answers of the French groups that attribute a bigger value to Blended Learning (61 out of 68 respondents chose this modality).
The Icelandic Students distribute their answers between Presential Learning (47%) and Distance Learning (41%).

Accessibility Dimension

Accessibility creates opportunity. It is very unlikely that somebody will look for something which existence is unaware of. Most frequently decisions fall on the most accessible options.

We tried to understand the respondents' view concerning the accessibility of the three types of learning. The Presential Learning offer seems to have more visibility because most respondents refer it as the most publicized and the one that offers more courses in specific interest areas.

Differences on the course diversity seem to be small but there are a slightly superior number of respondents that associate Blended Learning to course diversity.

Independently of the higher visibility of Presential Learning, Distance Learning is seen as the most accessible. It is on Distance Learning that students self-enrol more easily, it's on this modality that they find less constraints and prerequisites and Distance Learning is also the one that offers best conditions of accessibility for Students with special needs.

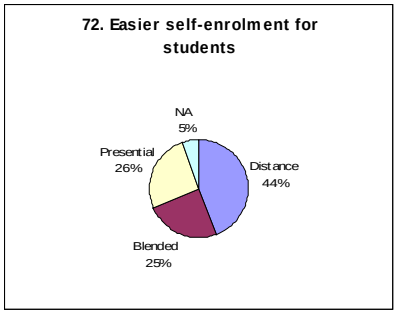
The Distance modality is also the one most associated with the availability of free courses, while Blended Learning is the less associated.

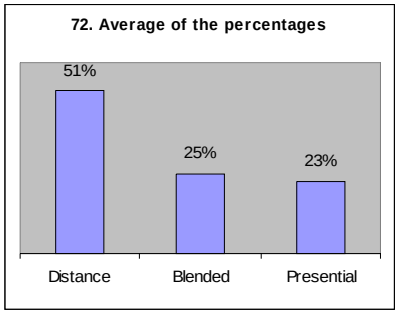
Distance and Blended modalities are seen as those that offer higher equity on the access to knowledge.

Easiness for students to self-enrol

Question:
S72. It is easier to enrol in a course in…

72. Easy self-enrolment for students	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	9	43%	9	43%	2	10%	1	5%	21
Portuguese tutors	7	70%	3	30%	0	0%	0	0%	10
Portuguese administrators	3	60%	0	0%	2	40%	0	0%	5
Spanish students	26	53%	13	27%	4	8%	6	12%	49
Spanish tutors	13	59%	4	18%	3	14%	2	9%	22
Spanish administrators	8	44%	4	22%	4	22%	2	11%	18
Italian students	49	52%	23	24%	21	22%	2	2%	95
Italian tutors	6	67%	0	0%	3	33%	0	0%	9
Italian administrators	3	60%	0	0%	1	20%	1	20%	5
French students	3	5%	17	28%	39	65%	1	2%	60
French tutors	1	25%	2	50%	0	0%	1	25%	4
French administrators	2	50%	0	0%	2	50%	0	0%	4
British students	1	100%	0	0%	0	0%	0	0%	1
British tutors	7	50%	4	29%	3	21%	0	0%	14
British administrators	2	50%	2	50%	0	0%	0	0%	4
Icelandic tutors	7	47%	3	20%	4	27%	1	7%	15
Icelandic administrators	2	67%	0	0%	0	0%	1	33%	3
	149	44%	84	25%	88	26%	18	5%	339
	Mean = 51%		Mean = 25%		Mean = 23%				
Icelandic students	196	63%	6	2%	105	34%	3	1%	310





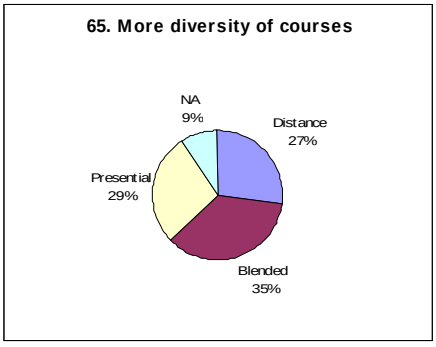
To evaluate the perception of the inquired group about the modality in which it is easier for the students to self-enrol in the courses we posed the question S72 to Students, Tutors and Administrators. Most of them (44%) affirmed to be in Distance Learning, 26% opted to Presential Learning and 25% to Blended Learning. The averages of the group percentages give us consistent values with the observed differences, highlighting inclusively the Distance Learning that gets an average of 51%.

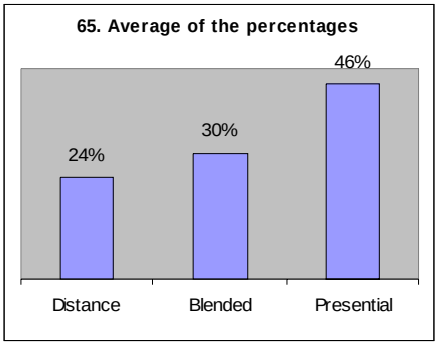
Most of the Icelandic Students (63%) also opted to Distance Learning.

Diversity of courses

Question:
S65. There is more diversity of courses in…

65. Course diversity	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	3	14%	2	10%	15	71%	1	5%	21
Portuguese tutors	1	10%	0	0%	9	90%	0	0%	10
Portuguese administrators	0	0%	0	0%	5	100%	0	0%	5
Spanish students	14	29%	20	41%	9	18%	6	12%	49
Spanish tutors	5	23%	6	27%	7	32%	4	18%	22
Spanish administrators	4	22%	3	17%	9	50%	2	11%	18
Italian students	41	43%	27	28%	16	17%	11	12%	95
Italian tutors	4	44%	1	11%	2	22%	2	22%	9
Italian administrators	4	80%	0	0%	1	20%	0	0%	5
French students	10	17%	49	82%	1	2%	0	0%	60
French tutors	1	25%	2	50%	0	0%	1	25%	4
French administrators	1	25%	2	50%	1	25%	0	0%	4
British students	0	0%	1	100%	0	0%	0	0%	1
British tutors	5	36%	4	29%	4	29%	1	7%	14
British administrators	0	0%	0	0%	4	100%	0	0%	4
Icelandic tutors	0	0%	2	13%	11	73%	2	13%	15
Icelandic administrators	0	0%	0	0%	3	100%	0	0%	3
	93	27%	119	35%	97	29%	30	9%	339
	Mean =	24%	Mean =	30%	Mean =	46%			
Icelandic students	74	24%	10	3%	218	70%	8	3%	310



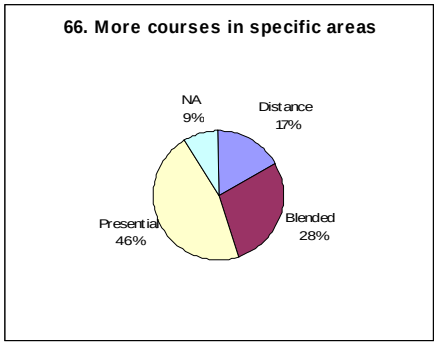


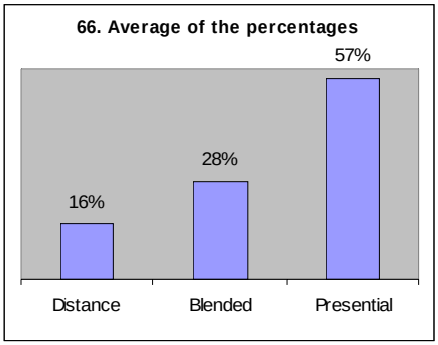
Question S65 asks Students, Tutors and Administrators about the modality that offers a larger diversity of courses. Most choices (35%) go, once again for Blended Learning. Presential Learning and Distance Learning get slightly less responses (29% and 27% respectively).
The averages of the group percentages present a different picture: the highest average (46%) is for those that answered "Presential Learning". The Portuguese groups, for example, concentrate in this option most of the answers. Although French Students (82%) and Spanish Students (47%) chose Blended Learning, the overall average for this category does not exceed the 30%.
The Icelandic Students, Tutors and Administrators also seem not to have doubts that the more diversified offer can be found in Presential Learning.

Amount of courses in specific areas

Questions:
S66. The number of courses in my knowledge domain is higher in... A66. The number of courses in most knowledge domains is higher in…

66. Courses in specific domains	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	2	10%	2	10%	16	76%	1	5%	21
Portuguese tutors	0	0%	0	0%	10	100%	0	0%	10
Portuguese administrators	0	0%	0	0%	5	100%	0	0%	5
Spanish students	8	16%	20	41%	16	33%	5	10%	49
Spanish tutors	4	18%	7	32%	7	32%	4	18%	22
Spanish administrators	3	17%	7	39%	6	33%	2	11%	18
Italian students	30	32%	25	26%	29	31%	11	12%	95
Italian tutors	2	22%	0	0%	4	44%	3	33%	9
Italian administrators	2	40%	0	0%	3	60%	0	0%	5
French students	1	2%	26	43%	32	53%	1	2%	60
French tutors	0	0%	1	25%	2	50%	1	25%	4
French administrators	1	25%	1	25%	2	50%	0	0%	4
British students	0	0%	1	100%	0	0%	0	0%	1
British tutors	4	29%	3	21%	7	50%	0	0%	14
British administrators	0	0%	0	0%	4	100%	0	0%	4
Icelandic tutors	1	7%	2	13%	11	73%	1	7%	15
Icelandic administrators	0	0%	0	0%	3	100%	0	0%	3
	58	17%	95	28%	157	46%	29	9%	339
	Mean =	16%	Mean =	28%	Mean =	57%			
Icelandic students	74	24%	7	2%	216	70%	13	4%	310

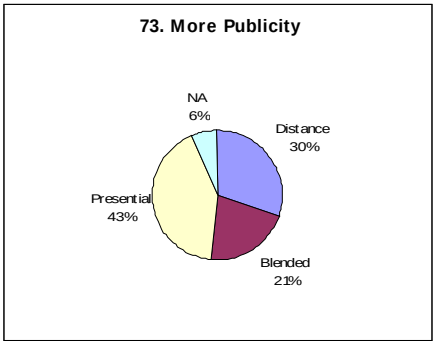


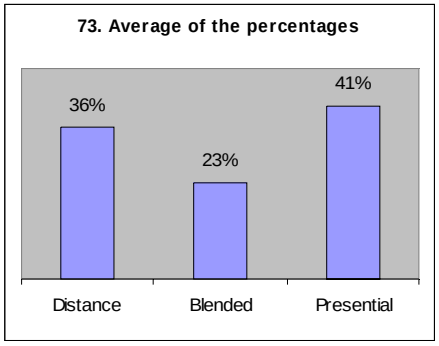


The questions S66 for Students and Tutors and A66 for Administrators ask to point out the modality that offers more courses in specific areas, believing that respondents are more informed about the subjects that they are interested in. Here the number of answers in Presential Learning goes to 46% and the average of the group percentages reaches 57%. The answers given to Blended Learning and Distance Learning decrease respectively to 28% and 17%.
The Icelandic Students also point clearly to Presential Learning (70%).

Question:
S73. Advertising gives more visibility to…

73. Publicity	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	5	24%	1	5%	14	67%	1	5%	21
Portuguese tutors	1	10%	1	10%	8	80%	0	0%	10
Portuguese administrators	0	0%	1	20%	4	80%	0	0%	5
Spanish students	20	41%	13	27%	11	22%	5	10%	49
Spanish tutors	9	41%	7	32%	2	9%	4	18%	22
Spanish administrators	6	33%	7	39%	3	17%	2	11%	18
Italian students	36	38%	24	25%	32	34%	3	3%	95
Italian tutors	4	44%	2	22%	2	22%	1	11%	9
Italian administrators	1	20%	1	20%	3	60%	0	0%	5
French students	3	5%	4	7%	53	88%	0	0%	60
French tutors	0	0%	1	25%	2	50%	1	25%	4
French administrators	0	0%	1	25%	2	50%	1	25%	4
British students	0	0%	1	100%	0	0%	0	0%	1
British tutors	8	57%	4	29%	2	14%	0	0%	14
British administrators	1	25%	0	0%	3	75%	0	0%	4
Icelandic tutors	7	47%	2	13%	4	27%	2	13%	15
Icelandic administrators	2	67%	0	0%	0	0%	1	33%	3
	103	30%	70	21%	145	43%	21	6%	339
	Mean =	36%	Mean =	23%	Mean =	41%			
Icelandic students	179	58%	7	2%	103	33%	21	7%	310



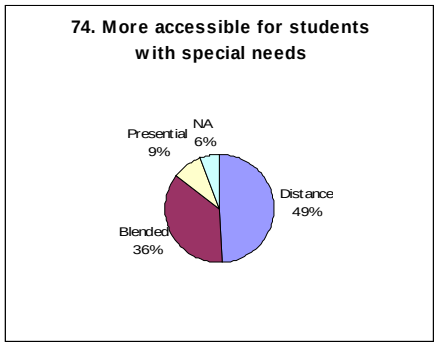


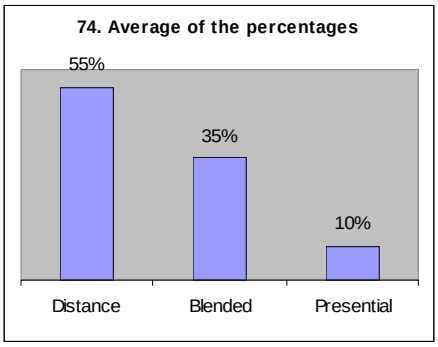
We asked the Students, Tutors and Administrators their opinion about which is the training modality that is more visible and gets more publicity (question S73), and the majority of the answers occurred in Presential Learning (43%). Distance Learning got 30% of the answers and Blended Learning got 21%.The major part of the Icelandic Students answered Distance Learning (58%).

Accessibility for students with special needs

Question:
S74. Accessibility for students with special needs is higher in…

74. Accessibility	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	15	71%	5	24%	0	0%	1	5%	21
Portuguese tutors	8	80%	1	10%	1	10%	0	0%	10
Portuguese administrators	2	40%	3	60%	0	0%	0	0%	5
Spanish students	23	47%	14	29%	4	8%	8	16%	49
Spanish tutors	8	36%	7	32%	3	14%	4	18%	22
Spanish administrators	6	33%	7	39%	3	17%	2	11%	18
Italian students	66	69%	22	23%	5	5%	2	2%	95
Italian tutors	4	44%	2	22%	2	22%	1	11%	9
Italian administrators	3	60%	2	40%	0	0%	0	0%	5
French students	14	23%	44	73%	2	3%	0	0%	60
French tutors	1	25%	2	50%	1	25%	0	0%	4
French administrators	2	50%	2	50%	0	0%	0	0%	4
British students	0	0%	1	100%	0	0%	0	0%	1
British tutors	6	43%	5	36%	3	21%	0	0%	14
British administrators	0	0%	2	50%	2	50%	0	0%	4
Icelandic tutors	8	53%	4	27%	1	7%	2	13%	15
Icelandic administrators	1	33%	0	0%	2	67%	0	0%	3
	167	49%	123	36%	29	9%	20	6%	339
	Mean =	55%	Mean =	35%	Mean =	10%			
Icelandic students	193	62%	10	3%	91	29%	16	5%	310



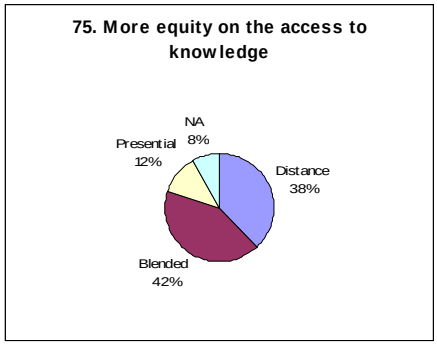


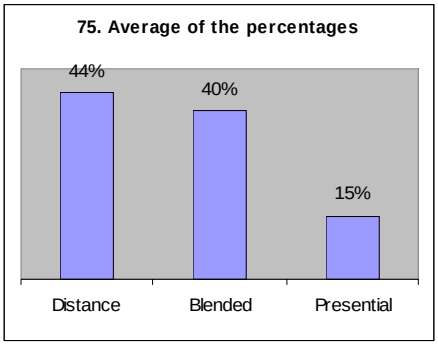
The perception of Students, Tutors and Administrators concerning the modality that is more accessible for students with special needs (question S74) falls mainly into Distance Learning (49%). Not so many respondents see Blended Learning as the most accessible (36%) and very few think that Presential Learning is accessible (9%). The averages of the group percentages show the same order. Most Icelandic Students said that Distance Learning is the most accessible (62%).

Equity in the access to knowledge

Question:
S75. Equity on the access to knowledge is higher in...

75. Equity on the access to knowledge	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	9	43%	9	43%	2	10%	1	5%	21
Portuguese tutors	6	60%	3	30%	0	0%	1	10%	10
Portuguese administrators	1	20%	4	80%	0	0%	0	0%	5
Spanish students	19	39%	16	33%	6	12%	8	16%	49
Spanish tutors	8	36%	7	32%	3	14%	4	18%	22
Spanish administrators	6	33%	8	44%	2	11%	2	11%	18
Italian students	42	44%	33	35%	14	15%	6	6%	95
Italian tutors	4	44%	2	22%	3	33%	0	0%	9
Italian administrators	2	40%	3	60%	0	0%	0	0%	5
French students	12	20%	45	75%	2	3%	1	2%	60
French tutors	2	50%	1	25%	0	0%	1	25%	4
French administrators	2	50%	1	25%	1	25%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	4	29%	4	29%	5	36%	1	7%	14
British administrators	1	25%	2	50%	1	25%	0	0%	4
Icelandic tutors	8	53%	4	27%	1	7%	2	13%	15
Icelandic administrators	2	67%	0	0%	1	33%	0	0%	3
	128	38%	142	42%	42	12%	27	8%	339
	Mean =	44%	Mean =	40%	Mean =	15%			
Icelandic students	203	65%	11	4%	76	25%	20	6%	310



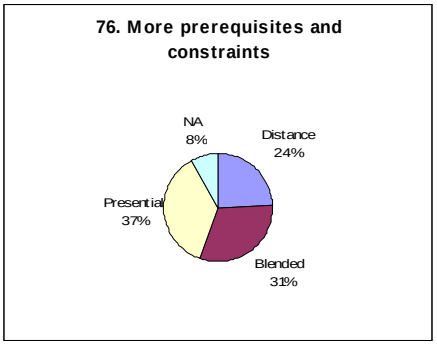


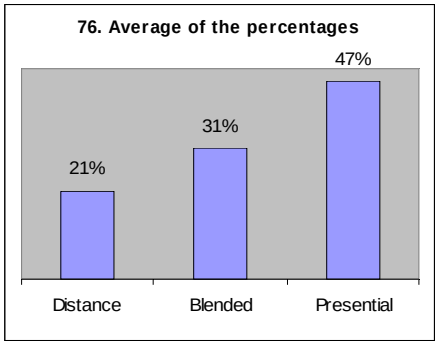
The equity in the access to knowledge (question S75) is perceived as being higher in Blended Learning by 42% of the respondents (Students, Tutors and Administrators), in Distance Learning by 38% and Presential Learning by 12% of the respondents. Among the Icelandic Students, 65% consider that this feature is higher in Distance Learning.

Prerequisites and constraints

Question:
S76. Prerequisites and constraints are higher in…

76. Prerequisites and constraints	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	5	24%	4	19%	11	52%	1	5%	21
Portuguese tutors	4	40%	2	20%	4	40%	0	0%	10
Portuguese administrators	2	40%	3	60%	0	0%	0	0%	5
Spanish students	6	12%	14	29%	22	45%	7	14%	49
Spanish tutors	5	23%	5	23%	8	36%	4	18%	22
Spanish administrators	1	6%	8	44%	7	39%	2	11%	18
Italian students	31	33%	16	17%	41	43%	7	7%	95
Italian tutors	4	44%	1	11%	3	33%	1	11%	9
Italian administrators	2	40%	1	20%	2	40%	0	0%	5
French students	14	23%	44	73%	2	3%	0	0%	60
French tutors	2	50%	1	25%	0	0%	1	25%	4
French administrators	3	75%	0	0%	1	25%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	3	21%	3	21%	8	57%	0	0%	14
British administrators	0	0%	1	25%	3	75%	0	0%	4
Icelandic tutors	0	0%	2	13%	9	60%	4	27%	15
Icelandic administrators	1	33%	0	0%	2	67%	0	0%	3
	83	24%	105	31%	124	37%	27	8%	339
	Mean =	21%	Mean =	31%	Mean =	47%			
Icelandic students	49	16%	7	2%	222	72%	32	10%	310



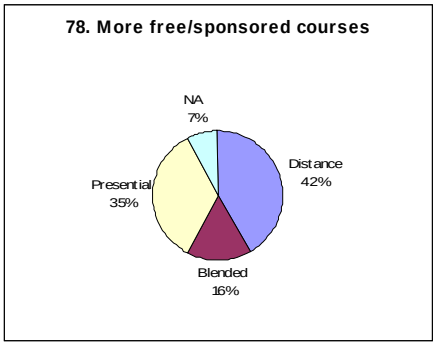


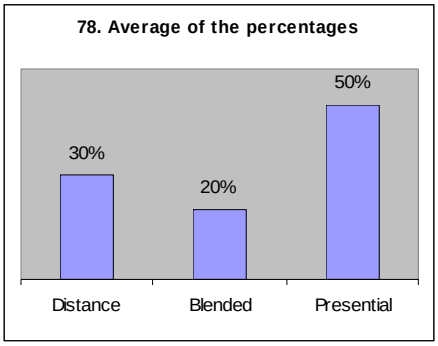
Prerequisites and constraints (question S76) are seen as higher in Presential Learning by 37% of the respondents (Students, Tutors and Administrators), in Blended Learning by 31% and in Distance Learning by 24% of the respondents. The majority of the Icelandic Students (72%) also consider that Presential Learning has more prerequisites and constraints.

Amount of free and sponsored courses

Question:
S78. There are more free courses in…

78. Free/sponsored courses	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	3	14%	1	5%	16	76%	1	5%	21
Portuguese tutors	1	10%	0	0%	9	90%	0	0%	10
Portuguese administrators	1	20%	0	0%	4	80%	0	0%	5
Spanish students	14	29%	9	18%	19	39%	7	14%	49
Spanish tutors	5	23%	3	14%	14	64%	0	0%	22
Spanish administrators	5	28%	6	33%	5	28%	2	11%	18
Italian students	56	59%	9	9%	23	24%	7	7%	95
Italian tutors	4	44%	1	11%	2	22%	2	22%	9
Italian administrators	2	40%	1	20%	2	40%	0	0%	5
French students	37	62%	12	20%	11	18%	0	0%	60
French tutors	1	25%	2	50%	0	0%	1	25%	4
French administrators	4	100%	0	0%	0	0%	0	0%	4
British students	1	100%	0	0%	0	0%	0	0%	1
British tutors	3	21%	6	43%	4	29%	1	7%	14
British administrators	2	50%	1	25%	1	25%	0	0%	4
Icelandic tutors	1	7%	3	20%	7	47%	4	27%	15
Icelandic administrators	1	33%	0	0%	2	67%	0	0%	3
	141	42%	54	16%	119	35%	25	7%	339
	Mean = 30%		Mean = 20%		Mean = 50%				
Icelandic students	195	63%	7	2%	92	30%	16	5%	310





The modality that presents more free courses (question S78) is, for 42% of the respondents (Students, Tutors and Administrators) Distance Learning, for 35% it is Presential Learning and for 16% of the respondents it is Blended Learning. However we must be cautious in the analysis of these results because there are some great differences in the way this question is answered in the different countries. The majority of the French and Italian respondents identified Distance Learning as being the one that offers more free courses, but the majority of the Portuguese and Spanish respondents considered that most free courses come in a Presential modality. Most Icelandic Students (63%) chose Distance Learning.

Management Dimension

Each type of training has its own implications at the management level, both for coordinators and for tutors. We wanted to know the perception that the respondents have about those implications so we made several questions, some specifically directed to Students, other to Administrators, some other to the Tutors and other directed to the three groups.

First, through a set of questions that we placed to all the respondents, we tried to know their opinion about the occurrence and the management of problems and their answers suggest that Presential Learning is not only the one that less respondents identified as problem generating, but is also the modality that the majority referred to be faster and more efficient in the resolution of problems.

To the Tutors we placed some questions about the level of requirements that they attribute to each training modality. Blended Learning and Presential Learning are seen, for most tutors, as more demanding regarding the effort, the time, the complexity, the need for planning and the drawing of the evaluation methods. However, Blended and Distance Learning are the modalities that more tutors feel to make time management easier.

Although we have a much reduced number of training coordinators among the respondents (N3=39) we posed them some questions related with the main tasks of coordination. Regarding the easiness to enrol students and the easiness of collecting documentation for the formalities, there are no significant differences between the 3 learning modalities. Most Administrators say that it is easier to search the market for Distance Learning, but the recruitment of students seems to be easier in Presential Learning. Distance Learning is also the most signalled as the modality where students' drop-outs are higher.

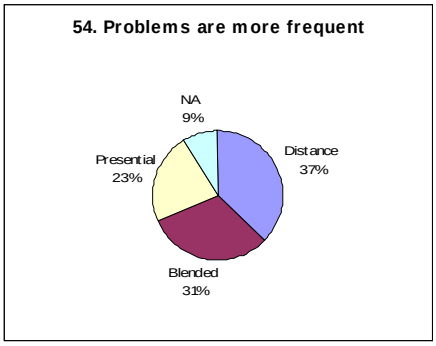
More Administrators declare a preference for coordinating tutors in Presential Learning; even though there are more Administrators considering that the evaluation of tutors as well as the evaluation of the general quality of courses is easier in Blended Learning.

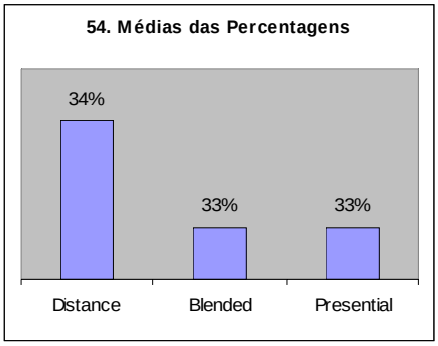
Tutors and Administrators also identified Blended Learning as the modality where is easier to monitor students' performance.

Frequency of problems occurrence

Question:
S54. Problems happen more in…

54. Frequency of problems	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	15	71%	1	5%	4	19%	1	5%	21
Portuguese tutors	4	40%	2	20%	4	40%	0	0%	10
Portuguese administrators	3	60%	1	20%	1	20%	0	0%	5
Spanish students	16	33%	19	39%	7	14%	7	14%	49
Spanish tutors	1	5%	8	36%	9	41%	4	18%	22
Spanish administrators	4	22%	7	39%	5	28%	2	11%	18
Italian students	54	57%	16	17%	24	25%	1	1%	95
Italian tutors	4	44%	1	11%	3	33%	1	11%	9
Italian administrators		0%		0%		0%	5	100%	5
French students	9	15%	43	72%	5	8%	3	5%	60
French tutors	1	25%	1	25%	1	25%	1	25%	4
French administrators	2	50%	1	25%	0	0%	1	25%	4
British students	1	100%	0	0%	0	0%	0	0%	1
British tutors	6	43%	4	29%	4	29%	0	0%	14
British administrators	3	75%	0	0%	1	25%	0	0%	4
Icelandic tutors	1	7%	2	13%	10	67%	2	13%	15
Icelandic administrators	2	67%	0	0%	0	0%	1	33%	3
	126	37%	106	31%	78	23%	29	9%	339
	Mean =	34%	Mean =	33%	Mean =	33%			
Icelandic students	162	52%	13	4%	123	40%	12	4%	310





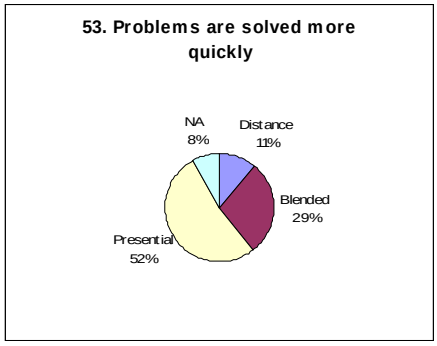
The question S54 aims to get the perception of Students, Tutors and Administrators concerning the training modality where the occurrence of problems is more frequent: 37% of the respondents affirm to be in Distance Learning, 31% say it is in Blended Learning and 23% say that it is in Presential Learning. When analyzed the averages of the percentages of the groups we find out that they are practically the same for the three learning modalities.

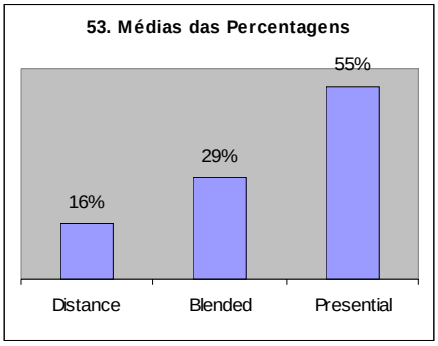
Slightly more than a half of the Icelandic Students (52%) also consider that it is in Distance Learning that problems occur more frequently.

Quickness in problems resolution

Question:
S53. Problems are solved faster in…

53. Problem solving quickness	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	3	14%	4	19%	13	62%	1	5%	21
Portuguese tutors	2	20%	3	30%	5	50%	0	0%	10
Portuguese administrators	1	20%	0	0%	3	60%	1	20%	5
Spanish students	5	10%	15	31%	24	49%	5	10%	49
Spanish tutors	6	27%	9	41%	3	14%	4	18%	22
Spanish administrators	5	28%	1	6%	10	56%	2	11%	18
Italian students	10	11%	37	39%	47	49%	1	1%	95
Italian tutors	2	22%	2	22%	4	44%	1	11%	9
Italian administrators		0%		0%		0%	5	100%	5
French students	0	0%	12	20%	47	78%	1	2%	60
French tutors	0	0%	3	75%	0	0%	1	25%	4
French administrators	0	0%	1	25%	2	50%	1	25%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	1	7%	4	29%	9	64%	0	0%	14
British administrators	0	0%	2	50%	2	50%	0	0%	4
Icelandic tutors	2	13%	4	27%	6	40%	3	20%	15
Icelandic administrators	1	33%	0	0%	1	33%	1	33%	3
	38	11%	97	29%	177	52%	27	8%	339
	Mean =	16%	Mean =	29%	Mean =	55%			
Icelandic students	115	37%	8	3%	181	58%	6	2%	310



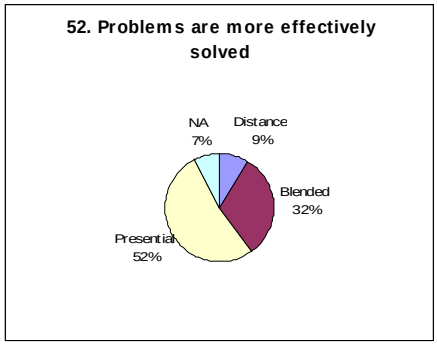


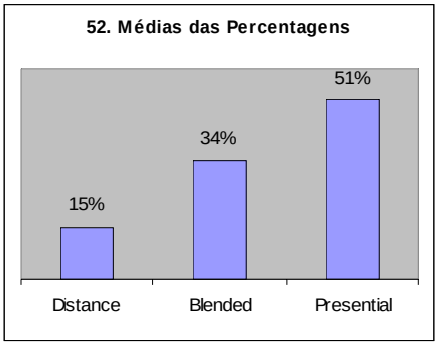
Problems are more quickly solved (question S53) in Presential Learning for 52% of the respondents (Students, Tutors and Administrators), in Blended Learning for 29% and in Distance Learning for 11%. The majority of the Icelandic Students (58%) also considered that problems are more quickly solved in Presential Learning.

Effectiveness of problems resolution

Question:
S52. When problems happen they are better solved in…

52. Problem solving effectiveness	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese students	1	5%	7	33%	12	57%	1	5%	21
Portuguese tutors	1	10%	3	30%	6	60%	0	0%	10
Portuguese administrators	0	0%	0	0%	5	100%	0	0%	5
Spanish students	1	2%	15	31%	28	57%	5	10%	49
Spanish tutors	6	27%	8	36%	3	14%	5	23%	22
Spanish administrators	7	39%	5	28%	4	22%	2	11%	18
Italian students	7	7%	39	41%	48	51%	1	1%	95
Italian tutors	2	22%	3	33%	4	44%	0	0%	9
Italian administrators		0%		0%		0%	5	100%	5
French students	0	0%	15	25%	44	73%	1	2%	60
French tutors	0	0%	1	25%	1	25%	2	50%	4
French administrators	1	25%	2	50%	1	25%	0	0%	4
British students	0	0%	0	0%	1	100%	0	0%	1
British tutors	1	7%	4	29%	9	64%	0	0%	14
British administrators	0	0%	1	25%	3	75%	0	0%	4
Icelandic tutors	2	13%	4	27%	7	47%	2	13%	15
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	29	9%	107	32%	178	53%	25	7%	339
	Mean =	15%	Mean =	34%	Mean =	51%			
Icelandic students	107	35%	5	2%	190	61%	8	3%	310



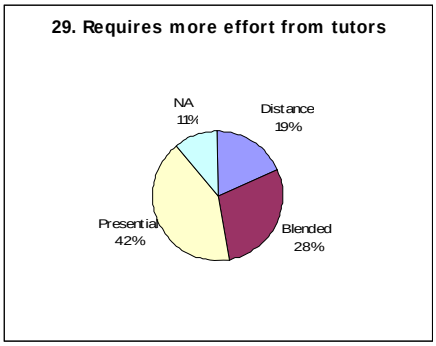


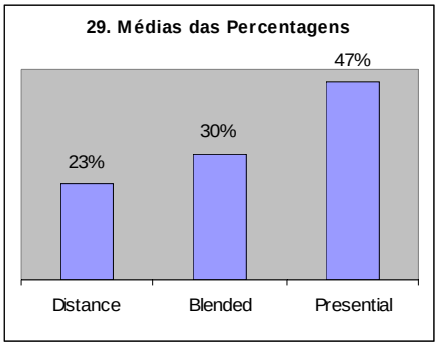
The effectiveness of problems resolution (question S52) is seen in a way that is very similar to the previous variable: 53% of the respondents (Students, Tutors and Administrators) find that in Presential Learning problems are more solved more effectively, 32% find that it is in Blended Learning and only 9% find that it is in Distance Learning. The opinion of Icelandic Students is also similar to the one they showed in the previous variable: 61% considered that problems are better solved in Presential Learning.

Effort required from tutors

Question:
T29. Teachers' tasks require more effort in...

29. Effort required from tutors	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	5	50%	2	20%	3	30%	0	0%	10
Spanish tutors	1	5%	10	45%	6	27%	5	23%	22
Italian tutors	3	33%	1	11%	4	44%	1	11%	9
French tutors	0	0%	2	50%	1	25%	1	25%	4
British tutors	2	14%	3	21%	9	64%	0	0%	14
Icelandic tutors	3	20%	3	20%	8	53%	1	7%	15
	14	19%	21	28%	31	42%	8	11%	74
	Mean =	23%	Mean =	30%	Mean =	47%			



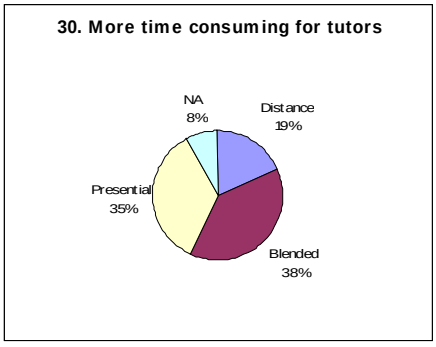


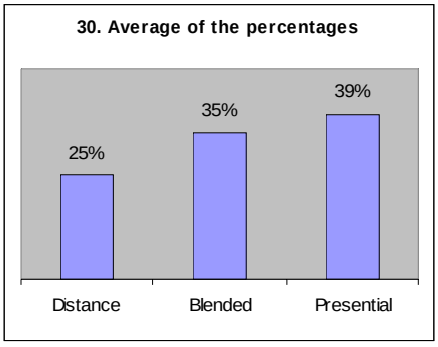
We asked Tutors which modality requires a greater effort from them (question T29) and 42% answered that Presential Learning was the most demanding, 28% answered Blended Learning and 19% affirmed to be Distance Learning.

Time required from tutors

Question:
T30. Teachers' tasks are more time consuming in...

30. Required time for tutors	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	4	40%	3	30%	3	30%	0	0%	10
Spanish tutors	2	9%	11	50%	5	23%	4	18%	22
Italian tutors	1	11%	4	44%	3	33%	1	11%	9
French tutors	0	0%	3	75%	1	25%	0	0%	4
British tutors	4	29%	3	21%	7	50%	0	0%	14
Icelandic tutors	3	20%	4	27%	7	47%	1	7%	15
	14	19%	28	38%	26	35%	6	8%	74
	Mean =	25%	Mean =	35%	Mean =	39%			



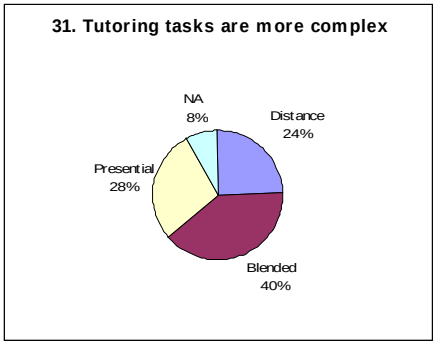


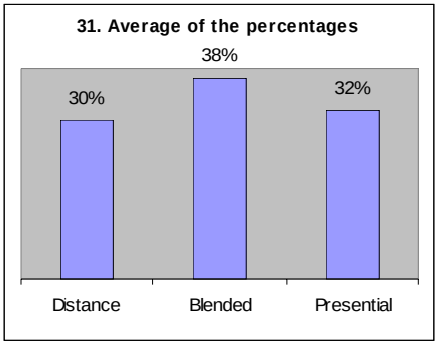
Tutors were also asked about the training modality that requires more time from them (question T30): 38% chose Blended Learning, 35% chose Presential Learning and 19% chose Distance Learning.

Complexity of the tutoring tasks

Question:
T31. Teachers' tasks are more complex in...

31. Tutoring complexity	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	4	40%	5	50%	1	10%	0	0%	10
Spanish tutors	3	14%	12	55%	3	14%	4	18%	22
Italian tutors	2	22%	4	44%	2	22%	1	11%	9
French tutors	0	0%	3	75%	1	25%	0	0%	4
British tutors	3	21%	3	21%	8	57%	0	0%	14
Icelandic tutors	6	40%	2	13%	6	40%	1	7%	15
	18	24%	29	39%	21	28%	6	8%	74
	Mean =	30%	Mean =	38%	Mean =	32%			



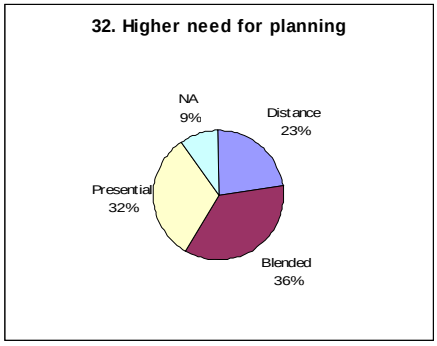


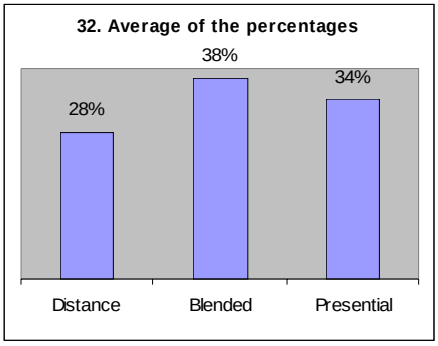
According to 39% of the Tutors, the complexity of the tutoring tasks (question T31) is higher in Blended Learning, for 28% the complexity is higher in Presential Learning and for 24% it is in Distance Learning.

Need for planning

Question:
T32. Need for planning is higher in...

32. Need for planning	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	6	60%	3	30%	1	10%	0	0%	10
Spanish tutors	4	18%	9	41%	5	23%	4	18%	22
Italian tutors	1	11%	6	67%	1	11%	1	11%	9
French tutors	0	0%	3	75%	1	25%	0	0%	4
British tutors	3	21%	2	14%	9	64%	0	0%	14
Icelandic tutors	3	20%	3	20%	7	47%	2	13%	15
	17	23%	26	35%	24	32%	7	9%	74
	Mean =	28%	Mean =	38%	Mean =	34%			



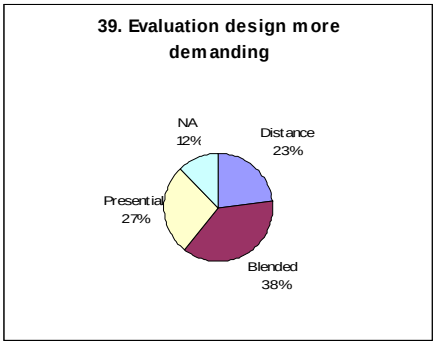


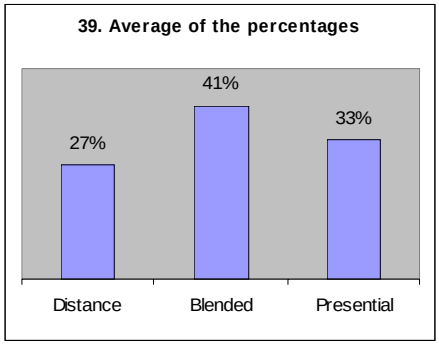
The need for planning (question T32) is considered to be higher in Blended Learning for 35% of the inquired Tutors, in Presential Learning for 32% of them and in Distance Learning for 23%.

Effort required for the evaluation design

Question:
T39. The evaluation design requires more effort in...

39. Effort required for evaluation design	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	6	60%	2	20%	2	20%	0	0%	10
Spanish tutors	3	14%	10	45%	4	18%	5	23%	22
Italian tutors	0	0%	5	56%	3	33%	1	11%	9
French tutors	1	25%	3	75%	0	0%	0	0%	4
British tutors	2	14%	4	29%	8	57%	0	0%	14
Icelandic tutors	5	33%	4	27%	3	20%	3	20%	15
	17	23%	28	38%	20	27%	9	12%	74
	Mean = 27%		Mean = 41%		Mean = 33%				



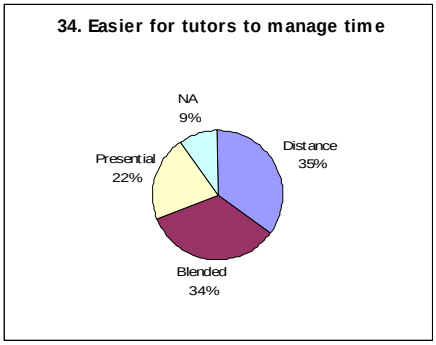


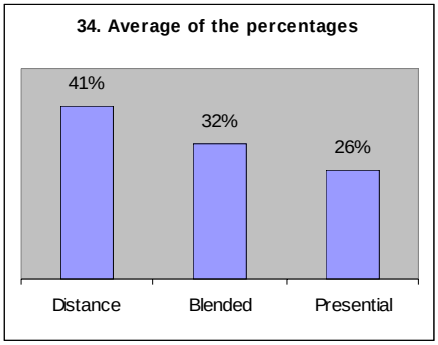
The most demanding modality concerning the evaluation design (question T39) is Blended Learning according to 38% of the inquired Tutors, Presential Learning for 27% of them and Distance Learning for 23%.

Time management for the tutors

Question:
T34. Time management is easier in...

34. Time management	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	4	40%	2	20%	4	40%	0	0%	10
Spanish tutors	8	36%	9	41%	0	0%	5	23%	22
Italian tutors	6	67%	2	22%	1	11%	0	0%	9
French tutors	1	25%	3	75%	0	0%	0	0%	4
British tutors	2	14%	4	29%	8	57%	0	0%	14
Icelandic tutors	5	33%	5	33%	3	20%	2	13%	15
	26	35%	25	34%	16	22%	7	9%	74
	Mean = 41%		Mean = 32%		Mean = 26%				

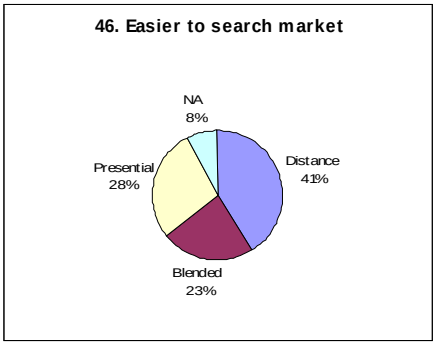


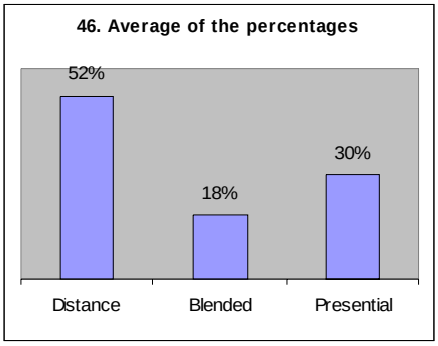


We asked Tutors about which modality makes easier for them to manage time (question T34): 35% declared to be Distance Learning, 34% declared to be Blended Learning and 22% declared to be Presential Learning.

Question:
A46. Market research is easier for…

46. Market search	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	2	40%	0	0%	3	60%	0	0%	5
Spanish administrators	6	33%	6	33%	4	22%	2	11%	18
Italian administrators	3	60%	1	20%	1	20%	0	0%	5
French administrators	0	0%	1	25%	3	75%	0	0%	4
British administrators	3	75%	1	25%	0	0%	0	0%	4
Icelandic administrators	2	67%	0	0%	0	0%	1	33%	3
	16	41%	9	23%	11	28%	3	8%	39
	Mean = 52%		Mean = 18%		Mean = 30%				



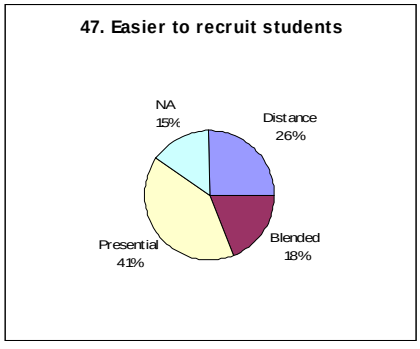


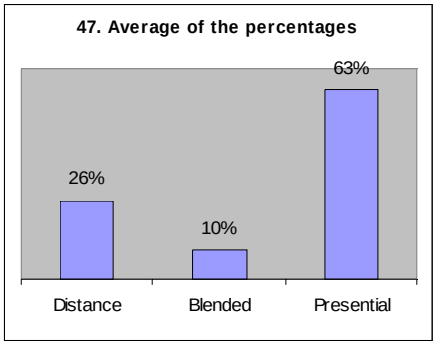
In the question A46 we looked for the opinion of Administrators about the modality where market research is easier: 41% chose Distance Learning, 28% answered to be in Presential Learning and 23% said that it is in Blended Learning.

Easiness on the recruitment of students

Question:
A47. It is easier to recruit students for…

47. Students' recruitment	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	1	20%	0	0%	4	80%	0	0%	5
Spanish administrators	4	22%	6	33%	4	22%	4	22%	18
Italian administrators	3	60%	1	20%	1	20%	0	0%	5
French administrators	0	0%	0	0%	3	75%	1	25%	4
British administrators	2	50%	0	0%	2	50%	0	0%	4
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	10	26%	7	18%	16	41%	6	15%	39
	Mean =	26%	Mean =	10%	Mean =	63%			



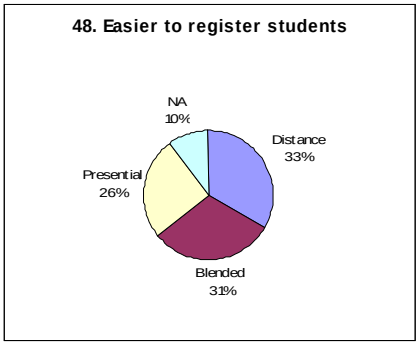


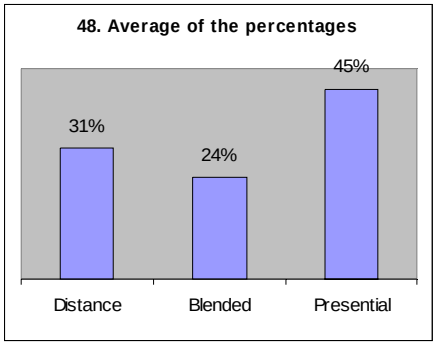
According to 41% of the inquired Administrators it is easier to recruit students for Presential Learning than for the remaining modalities (question A47); 26% considered being easier to make it for Distance Learning and 18% for Blended Learning. It is noteworthy that 15% of the inquired Administrators didn't answer this question.

Easiness on the enrolment of students

Question:
A48. It is easier to enrol students in…

48. Easier to enrol students	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	3	60%	0	0%	2	40%	0	0%	5
Spanish administrators	6	33%	8	44%	2	11%	2	11%	18
Italian administrators	2	40%	1	20%	2	40%	0	0%	5
French administrators	2	50%	1	25%	1	25%	0	0%	4
British administrators	0	0%	2	50%	2	50%	0	0%	4
Icelandic administrators	0	0%	0	0%	1	33%	2	67%	3
	13	33%	12	31%	10	26%	4	10%	39
	Mean =	31%	Mean =	24%	Mean =	45%			



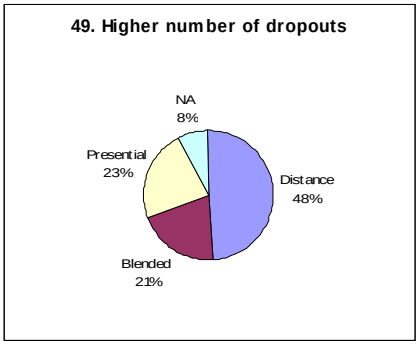


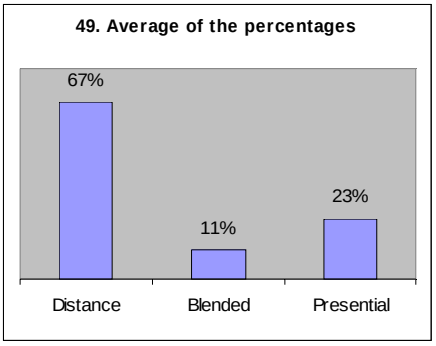
We asked the Administrators about what modality makes easier the process of enrolling students (question A48). The answers were evenly distributed through the three learning modalities: 33% chose Distance Learning, 31% chose Blended Learning and 26% chose Presential Learning.

Occurrence of student drop-outs

Question:
A49. Student drop-outs are higher in…

49. Students' drop outs	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	5	100%	0	0%	0	0%	0	0%	5
Spanish administrators	5	28%	7	39%	4	22%	2	11%	18
Italian administrators	1	20%	1	20%	3	60%	0	0%	5
French administrators	4	100%	0	0%	0	0%	0	0%	4
British administrators	2	50%	0	0%	2	50%	0	0%	4
Icelandic administrators	2	67%	0	0%	0	0%	1	33%	3
	19	49%	8	21%	9	23%	3	8%	39
	Mean = 67%		Mean = 11%		Mean = 23%				



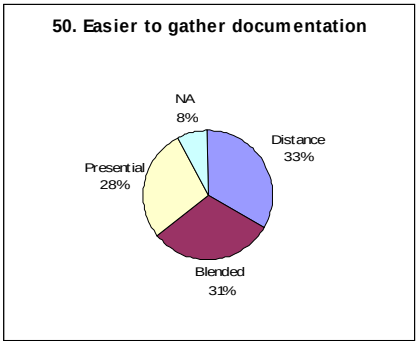


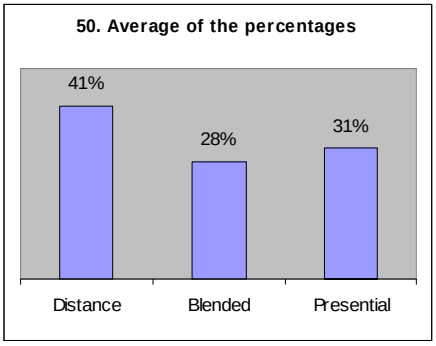
According to 49% of the inquired Administrators, the level of student dropouts (question A49) is higher in Distance Learning; 23% consider that it is in Presential Learning and 21% said that is in Blended Learning.

Easiness on gathering the documentation for formalities

Question:
A50. It is easier to gather documentation in…

50. Document gathering	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	1	20%	0	0%	4	80%	0	0%	5
Spanish administrators	6	33%	7	39%	3	17%	2	11%	18
Italian administrators	2	40%	0	0%	3	60%	0	0%	5
French administrators	2	50%	2	50%	0	0%	0	0%	4
British administrators	0	0%	3	75%	1	25%	0	0%	4
Icelandic administrators	2	67%	0	0%	0	0%	1	33%	3
	13	33%	12	31%	11	28%	3	8%	39
	Mean = 41%		Mean = 28%		Mean = 31%				



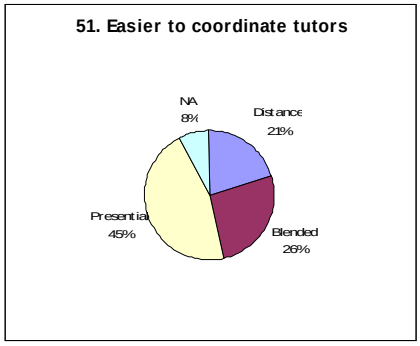


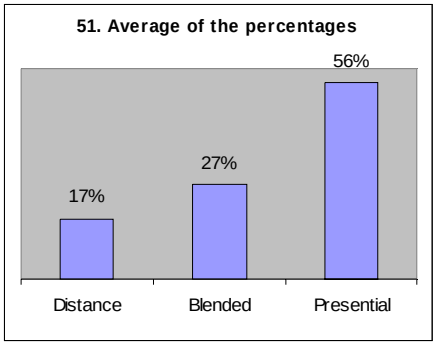
Gathering documentation for formalities (question A50) does not seem to differ much in the three modalities: 33% of the inquired Administrators find that it is easier to do it in Distance Learning, 31% say that it is in Blended Learning and 28% affirm to be in Presential Learning.

Easiness on the coordination of tutors

Question:
A51. It is easier to coordinate tutors in…

51. Coordinate tutors	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	0	0%	1	20%	4	80%	0	0%	5
Spanish administrators	5	28%	4	22%	7	39%	2	11%	18
Italian administrators	1	20%	2	40%	2	40%	0	0%	5
French administrators	2	50%	1	25%	1	25%	0	0%	4
British administrators	0	0%	2	50%	2	50%	0	0%	4
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	8	21%	10	26%	18	46%	3	8%	39
	Mean =	17%	Mean =	27%	Mean =	56%			



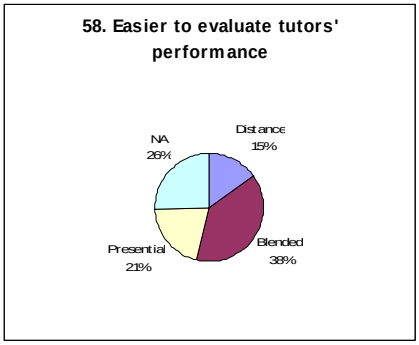


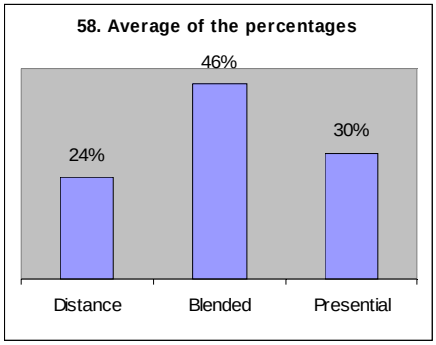
Inquired about the context where it is easier to coordinate tutors (question A51), 46% of the Administrators affirmed to be in context of Presential Learning, 26% said that is in Blended Learning and 21% said that is in Distance Learning.

Easiness on the evaluation of tutors' performance

Question:
A58. Tutors' performance is easier to evaluate in…

58. Evaluate tutors	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	0	0%	3	60%	1	20%	1	20%	5
Spanish administrators	3	17%	8	44%	4	22%	3	17%	18
Italian administrators		0%		0%		0%	5	100%	5
French administrators	2	50%	2	50%	0	0%	0	0%	4
British administrators	0	0%	2	50%	2	50%	0	0%	4
Icelandic administrators	1	33%	0	0%	1	33%	1	33%	3
	6	15%	15	38%	8	21%	10	26%	39
	Mean =	24%	Mean =	46%	Mean =	30%			



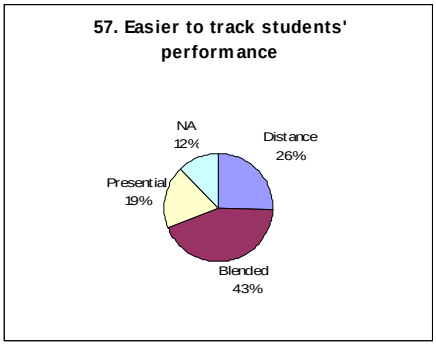


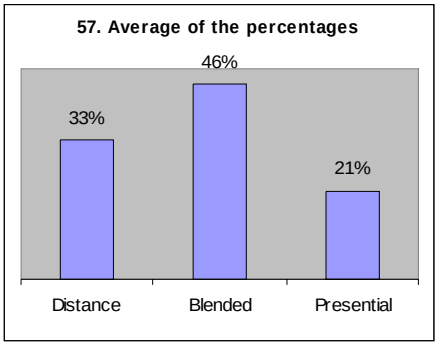
For 38% of the Administrators the evaluation of tutors' performance (question A58) seems to be easier when made in context of Blended Learning; for 21% it is easier to do in Presential Learning and for 15% it is easier to do in Distance Learning.

Easiness on the monitoring of the students' performance

Question:
T57. It's easier to track students' performance in…

57. Tracking sudents' performance	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese tutors	1	10%	7	70%	2	20%	0	0%	10
Portuguese administrators	0	0%	4	80%	1	20%	0	0%	5
Spanish tutors	7	32%	10	45%	1	5%	4	18%	22
Spanish administrators	6	33%	6	33%	4	22%	2	11%	18
Italian tutors	7	78%	2	22%	0	0%	0	0%	9
Italian administrators	0	0%	0	0%	0	0%	5	100%	5
French tutors	0	0%	4	100%	0	0%	0	0%	4
French administrators	1	25%	2	50%	1	25%	0	0%	4
British tutors	3	21%	7	50%	4	29%	0	0%	14
British administrators	2	50%	2	50%	0	0%	0	0%	4
Icelandic tutors	2	13%	5	33%	6	40%	2	13%	15
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	29	26%	49	43%	21	19%	14	12%	113
	Mean =	33%	Mean =	46%	Mean =	21%			



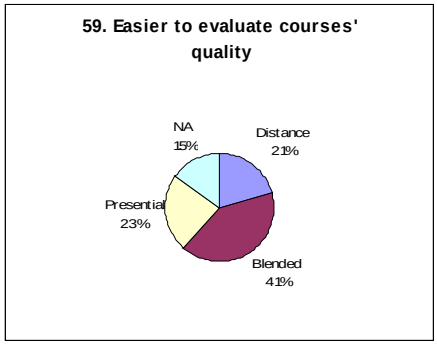


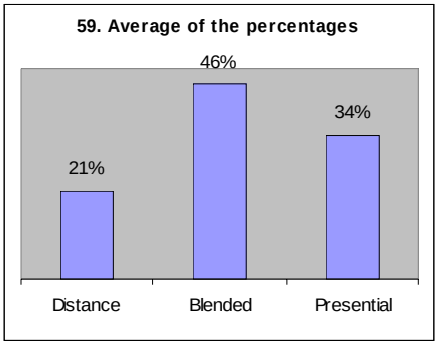
Monitoring the students' performance (question T57) is for 43% of the inquired Tutors and Administrators, easier in a context of Blended Learning, for 26% in a context of Distance Learning and for 19% in Presential Learning.

Easiness on the assessment of the general quality of the courses

Question:
A59. Course quality is easier to evaluate in…

59. Evaluation of course quality	Distance Learning		Blended Learning		Presential Learning		no-answers		N
Portuguese administrators	0	0%	3	60%	2	40%	0	0%	5
Spanish administrators	5	28%	8	44%	5	28%	0	0%	18
Italian administrators	0	0%	0	0%	0	0%	5	100%	5
French administrators	2	50%	2	50%	0	0%	0	0%	4
British administrators	1	25%	3	75%	0	0%	0	0%	4
Icelandic administrators	0	0%	0	0%	2	67%	1	33%	3
	8	21%	16	41%	9	23%	6	15%	39
	Mean =	21%	Mean =	46%	Mean =	34%			





Within the inquired Administrators, 41% considered being easier to evaluate the general quality of a course (question A59) in Blended Learning, 23% found that it is easier in Presential Learning and 21% declare to be easier in Distance Learning.

Overview of the results

The purpose of this set of questionnaires was to find out the perception that students, tutors and course administrators have of the added value of e-Learning. In order to do it we asked them to choose whether some qualities were more present in Distance Learning, Presential Learning or Blended Learning. Those categories somehow force respondents to express how much they value the flexibility of distance learning and the richness of presential learning while having in mind certain dimensions of education and training.

In general we observed that many respondents value the students' autonomy and the flexibility offered by e-Learning, however this purely at distance modality is seen as pedagogically poorer than other approaches.

It is also interesting to note that Distance Learning is no longer seen as a profitable modality. It is considered affordable for students and requiring a low budget for management and tutoring, but it is considered expensive in terms of tutor adaptation and content production. If we join to these perceptions those that point Distance Learning as the one with worst price-quality relationship, lowest credibility and lowest preference, then we really get a dark picture for pure e-Learning.

Most respondents still value the face-to-face communication and classroom learning still grants more confidence to individuals and institutions.

Nevertheless, Blended Learning seems to get the preference of many respondents in numerous variables. We must not neglect the meaning of the responses that put this modality as the one that people attribute the best price-quality relationship. So this is a sign of hope for e-Learning as long as it involves presential activities.

Anyway, is this a good sign or a bad sign in terms of the qualitative evolution of e-Learning? The fact is that much of the actual e-Learning offer is blended. As presented in the second part of this report, concerning the national situations and policies, the most widespread kinds of e-Learning in countries like France and Iceland are respectively “Open and Distance Learning” and “Distributed Learning”, both blended modalities. Portuguese education and training providers discovered long ago that pure e-Learning doesn't work. Distance communication lacks the normative influence that glues people together into a class and students end up skipping learning tasks and quitting courses very easily.

So, respondents seem to know what Blended Learning is and seem comfortable with that kind of experience. Whether this sympathy is a form of conservatism or a step towards deeper innovation is a question that remains unanswered.

Blending can be a way of maximizing flexibility but can also be a form of compensating the insufficiencies of on-line learning while keeping it insufficient instead of improving it. It is hard to tell right now.

Part IV

Workshops & Seminars

The identification and dissemination of good practices

Among other goals, the SLIDE Project envisaged the identification of the successful practices of ICT introduction in education and training processes.

With this purpose as well as the one of disseminating the project results there was a series of workshops and seminars that we now present.

Workshops

On the second stage of the project every partner were in charge of organizing a workshop in their regions. This activity aimed two objectives:

- The identification of the criteria and indicators for the measurement of the added-value of ICT introduction in the education and training processes;
- The identification of the criteria and indicators for the evaluation of good e-Learning practices.

Some partners chose to organize the workshops for the first purpose and some chose the second purpose.

Each partner was free to choose which participants should be invited for these journeys but there were some common criteria for that selection. So, the participants were mostly:

- Organizations which have the responsibility to finance the vocational training;
- Training organizations with or without experience in e-Learning;
- People having recognized expertise in e-Learning, ODL or Distance Learning;
- Local/Regional organizations that are client of training with or without experience with e-Learning.

Each partner was also free to choose the method of conducting the workshops but all converged on using brainstorming techniques in a focus-group setting.

Next we present the methods, the criteria and the indicators for each purpose separately, starting with those that were later used to measure the added-value of ICT introduction in the education and training processes through the on-line that we already discussed in this report.

Indicators of added-value – measuring the impact of ICT

We already analysed and discussed the results of an on-line questionnaire but we did not explain the origin of the conceptual framework in which it was based.

That framework consists in a list of indicators organized into dimensions and all of them resulted from the activities that took place in some of the workshops.

The first step was to ask participants to bring up the criteria that they most value in education and training.

The participants were expressly asked to take into consideration the perspectives of three groups related to training:

- Students/Trainees,
- Tutors/Teachers,
- Administrators/Course coordinators.

Those criteria (indicators) were then redefined in order to reduce redundancies and grouped into categories that we called dimensions and the result was the following list:

Pedagogical Dimension
1. Concept acquisition 2. Concept understanding 3. Accuracy on self-assessment 4. Knowledge diversity 5. Learning speed 6. Attitude formation and change 7. Awareness of the learning process 13. Applicability of previous knowledge 14. Learning autonomy 18. Focus on the learning tasks 19. Students' control over the learning process 20. Students' active role 27. Easiness to motivate students 28. Flexibility of the teaching tools 33. Easiness to use non-directive methods 35. Abundancy of pre-made solutions and activities 36. Accuracy on the evaluation of the students' attitude change 37. Accuracy on the evaluation of the students' conceptual acquisition 38. Accuracy on the evaluation of the students' practical skills

Communicational Dimension
15. Clarification of doubts 16. Information exchange between peer students 17. Quality of the interaction between peer students 22. Information exchange between tutors 23. Quality of the communication between tutors and coordinators 24. Communication speed 25. Communication effectiveness 26. Tutors' perceived authority and control over the students 55. Frequence of the students' contact with the course coordination 56. Frequence of the tutors' contact with the course coordination 63. Information sharing

Attitudinal and Motivational Dimension
8. Attitude towards peer students 9. Attitude of students towards tutors 10. Attitude towards the learning contents 11. Preferred modality 12. Attitude towards the learning environment 21. Closeness tutor-student 60. Class cohesiveness 61. Motivation of school staff 62. Formality of relationships 70. Motivation for lifelong learning 71. Compatibility with lifestyle

Economical Dimension
40. Cost of content creation 41. Cost of tutor adaptation 42. Cost of tutoring 43. Cost of the resources 44. Management costs 45. Return Over the Investment 67A. Cost of learning 67B. Price/quality relationship

Dimension of the Social Representations
64. Reputation obtained by schools 68. Courses' credibility 69. External recognition of the qualifications 77. Employers' preference for personel training 79. Employability

Dimension of Accessibility
65. Diversity of courses 66. Number of courses in specific domains 72. Students' self-enrolment... 73. Visibility 74. Accessibility for students with special needs 75. Equity on the access to knowledge 76. Prerequisites and constraints 78. Abundance of free courses

Management Dimension
29. Effort required from tutors 30. Time required from tutors 31. Complexity of tutoring tasks 32. Need for planning 34. Easiness of time management 39. Effort required for evaluation design 46. Easiness of market research 47. Easiness on the recruitment of students 48. Easiness of the students' enrolment process 49. Student dropouts 50. Easiness to gather documentation 51. Easiness on the tutors' coordination 52. Effectiveness of problem solving 53. Quickness of problem solving 54. Frequency of problem occurrence 57. Easiness to track students' performance 58. Easiness on the evaluation of the tutors' performance 59. Easiness on the evaluation of the course quality

Indicators of e-Learning quality – identifying good practices

The first step consisted on bringing up criteria of quality applicable to e-Learning. Those criteria were organized according to three different perspectives:

- The provider's perspective;
- The consumer's perspective;
- The political/strategic perspective.

The criteria were then redefined to eliminate the redundancies and clustered in order to bring up the main categories.

The obtained categories of criteria are:

- Legibility / Transparency / Pertinence of the training offer:
  - His/her information: Nature and access to this information.
  - Regarding of the European and national legislative frameworks.
  - Respecting the expressed needs by the professionals of the area: What kind of skills and qualifications.
  - Environment: structuring, eligibility, marking out / regulation, evaluation by a trainee production according to the achieved objectives.
- Reliability of training system:
  - In respect to the information received: Price, duration,…
    - The flexibility and ease of use the system
    - Contacts and exchanges: Accompaniment, tutoring, exchange of ideas between pairs…
    - Quality of contents: pedagogical approach, attractiveness…
  - Evaluation of the quality of the delivered training programme: Quality expected, perceived that received.
  - Technical: Tools or systems allowing the total contents to be available (always and everywhere) with attention to simplicity, reliability and ergonomics.
  - Tutoring: Flexible in times and methods (adaptability), rapidity/reactivity, pertinence of the answer, on line tutor skills (psychological, pedagogical and social).
  - Management and administration of the trainee environment: Fluidity and coherence of the information transmission between the stakeholders (administrator, tutor, trainee).
- Personalization – Individualization:
  - Identification of his/her needs: Individual needs, professional needs, employability….
  - In respect to the information received: Price, duration,…
    - The flexibility and ease of use the system
    - Contacts and exchanges: Accompaniment, tutoring, exchange of ideas between pairs…
    - Quality of contents: pedagogical approach, attractiveness…
  - Regarding the quality directive lines for the innovation in the pedagogical methodologies: employed methods, qualification of the trainers, coherence between contents and objectives.

- Content: Structuring, legibility, update and declinable in levels (pertinence).
- Tutoring: Flexible in times and methods (adaptability), rapidity/reactivity, pertinence of the answer, on line tutor skills (psychological, pedagogical and social).

⇢ Creation of training penchant: autonomy, pleasure, interpersonal relations: tutors, pairs, mediation with oneself

- Concrete results: Knowledge, employability, valorisation by trainee …

⇢ Pedagogical results:

- Concrete results: Knowledge, employability, valorization by trainee …

⇢ Economical results:

- Economical model: profitable of utility, longevity, sustainability.

⇢ Management results:

- Satisfaction for all the project team and all the stakeholders.

These criteria were the basis for the identification of quality measurement indicators that are presented on the following tables:

I - Legibility / Transparency / Validity of the training proposal
I.1 - Existence of a program respecting the information items defined by the national applicable laws (varies from country to country).
I.2 - Existence of an apprenticeship contract: individual protocol of training…
I.3 - Existence of a diagnostic test.
I.4 - Rate of success of the final evaluation of the trainees have completed the training programme.
I.5 - Rate of success of placement in employment of the trainees have completed the training programme.
I.6 - Rate of coherence of programme system: Number of trainees received from the target group suitable / Number of trainees effectively received for training.

II - Reliability of training system
II.1 - Existence of a program respecting the information items defined by the national applicable laws (varies from country to country).
II.2 – Number of active enquiries.
II.3 - Number of interventions (all confused): average duration x number of trainees.
II.4 – Intervention rate: Real contact time of the tutor / Planed time in the training protocol.
II.5 – Average time given by the tutor answer to the trainee's requests.
II.6 – Answers rate: Number of given answers / Total number of questions asked.
II.7 - Contents in conformity with the standard SCORM or other standards: Number compulsory fields filled in.
II.8 - Presence of current date on the contents.
II.9 – User rate: Opening number or download number or printing of a pedagogical sequence.
II.10 - Declaration of agreement by the trainees.

III - Personalization - Individualization
III.1 – Diagnostic testing rate: Time devoted to diagnostic testing by the trainees and the tutors / Total duration of the training.
III.2 - Number of diagnostic testing methods proposed (declaration, interview, quiz, practical test…).
III.3 - Number of training methods overall in the methods proposed training round.
III.4 – Waiting time for reply from the tutor to trainee.
III.5 – Tutoring rate: Intervention time of the tutor / Planed time in the training protocol.
III.6 - Trainee satisfaction rate concerning the validity of the answers given by the tutor.
III.7 - Rate of non completion.

IV - Creation of training penchant: autonomy, pleasure, interpersonal relations: tutors, pairs, mediation with oneself
IV.1 – Places of exchanges
IV.1.1 – Virtual existence or not (forum, chat, seminar…).
IV.1.2 – Thematic diversity: Number of themes covered in these places.
IV.1.3 - Frequency of use: Number of monthly users.
IV.1.4 – Opening rate: Number of occasional users / Number of accustomed users.
IV.2 – The relation to oneself: Number of candidates presenting themselves for the training by word of mouth
IV.3 – Penchant
IV.3.1 – Overachievement of the pedagogical aim: Number of trainees having surpassed their initial aim / Total number of trainees.
IV.3.2 - Existence of an old trainees community.

V. - Pedagogical results
V.1 - Total number of pedagogical aims reached per trainee.
V.2 – Number of other acquired knowledge other that those which was envisaged in the objectives laid down in the training plan.
V.3 – Difference between the initial diagnostic testing and the final assessment.
V.4 – Enterprise satisfaction rate (or dissatisfaction) about the post-training skills of their employees.
V.5 – Number of assessment methods of the proposed training (tests, assessment, interview,…)
V.6 – Subscribing to a complementary training module other than that already carried out.
V.7 – Subscribing to another training module continuing the same educational logic.

VI – Economical results
VI.1 - Is the training continued?
VI.2 – Cost per trainee.
VI.3 – Price paid by trainee.
VI.4 – Sales turnover in e-Learning / Total training sales turnover.
VI.5 – Trainee travel average cost per module.
VI.6 - Tutor travel average cost per module.
VI.7 – Number of trained people per module or session.
VI.8 – Number of people, who are not easily motivated by traditional training that, takes part in e-Learning training.
VI.9 – Rate of training outside of the enterprise: Training time outside of work / Training total time.
VI.10 – Training having an effect on the sustainable development.
VI.11 – Existence of a person or dedicated service to sell the e-Learning courses in the training organization.
VI.12 - Existence of use of an e-Learning communication support system in the training organization.

VII – Management results
VII.1 –Implication rate of training team: Number of tutors involved / Total number of tutors.
VII.2 – Existence of a person or dedicated service to e-Learning in the training organization.
VII.3 – Existence of a person or dedicated service to the e-Learning administrative management in the training organization. To start out facilitation/difficulties of formal administrative follow-up, tools used to identify, difficulties users,…).
VII.4 - Existence and use of a device or software dedicated to the e-Learning administrative management in the training organization.
VII.5 – e-Learning tutor rate: Number of tutors having followed specific e-Learning courses / Total number of tutors.
VII.6 – Course contents progression rate proposed yearly in e-Learning: Amount of new contents / Total number of proposed new content in e-Learning.
VII.7 – Volunteer tutors progression rate to do e-Learning: Number of new tutors having integrated the e-Learning team / Total number in the e-Learning team.
VII.8 – Number of trainees under the responsibility of the tutor.

The thresholds that indicate whether an e-Learning practice is a good one or a bad one were not consensual and we believe that it has to be adapted to different kinds of education and training as well as different cultural contexts. These differences result from the fact that different contexts require that we put different weights in each criteria. Anyway, this issue remains open to further and deeper discussion.

Seminars

During the second stage of the project each partner also organized a seminar with three main objectives:

- The dissemination of the project as well as the results from the first stage (the data gathered from the analysis of the national situations and policies of e-Learning);
- The presentation of some e-Learning local, regional or national experiences;
- The presentation of the e-Learning situation in the country of an invited partner.

This last goal was possible because we planned that seminars would count with the presence of an invited partner from a different country in order to bring some inter cultural exchange into these events.

The participants of these seminars corresponded to the same groups targeted by the workshops:

- Organizations which have the responsibility to finance the vocational training;
- Training organizations with or without experience in e-Learning;
- People having recognized expertise in e-Learning, ODL or Distance Learning;
- Local/Regional organizations that are client of training with or without experience with e-Learning.

The difference is that the seminars generally counted with a larger number of participants.

Each organizing partner was free to choose the most suitable format for the seminars. In Portugal, for instance, a lunch-debate was thought to be the most appropriate for the purposes. In other countries the participants chose to involve participants more actively. For example, in Italy, the seminar included a SWOT analysis about the present and the future of e-Learning in that country. The result was the following:

Punti forti ***Strong points***	***Punti deboli*** ***Weak points***
Wiht a certain degree of foresight the Ministry tried to establish rules and to improve the quality of : • Routes tracking systems • Costs certification The third sector organizations, due to the economic difficulties, were less subjected to technological and economical pressure. Use of Open Source platforms. In the recent years changed the position of Governmental institutions …… major attention was given to learning processes and to training design. This change is going to influence Employment Ministry with a tendency to influence training activities addressed to Public Administrations. All can obtain hardware and technology…. so, this fact necessarily shifts the attention to the other aspects (contents and methodology). Growth of "distributed knowledge" types also through open source forms. As to "training" forms maybe an acceptable level was reached … but as to training? (see below) Students are no more a problem, or, to say it better, the problems relevant to the students can be faced in an easier way. It is anyway necessary to distinguish case by case.	Supremacy of technology and market which gave impulse without creating an adequate degree of culture. The management was often committed to IT technicians instead of training professionals. FAD found complicated to define training hours. Lack of certain and significant parameters (number of pages published, often used, doesn't reflect effectively the philosophy of FAD. FAD was used in a marginal way and not always correlated to the true and real training route. Economical aspects and flexibility are strength points: the various forms of financing do not stimulate use of FAD, in addition to that, policies of spreading and flexible using of instruments and contents are not rewarded. Not always organizational contexts were ready to adopt new technological and methodological forms. Learning more linked to technology than to social and cultural development. Low ICT skills of teachers and students. In the third sector a shared methodology didn't consolidate and a shared patrimony among various subjects was not

Punti forti *Strong points*	*Punti deboli* *Weak points*
Non-socialization theme is no more a problem … also due to the training of specific professional figures who promote and guarantee those processes (FAD tutors).	created. We're till now in an experimental stage. Formerly poor attention was given to the processes and methodologies also by ISFOL …. With major attention to technological aspects. Lack of attention to beneficiaries and to their needs. Not always it is an economic "methodology". There is a lack of a strong and consolidated theory of distance learning.

Considerations
Profit firms have reaction times more immediate, due to more pressing bonds, while "financed training" was not able to understand the trend. The discussion on FAD intersects with the theme of the certification of training agencies. Theme of learning certification (acknowledgment forms …. licences, diplomas …) Relationship between real and virtual classroom …. The initial utilization of FAD pointed out the limits of training in Italy and of the competences of the teachers, as it requires attention to methodology and microplanning of formation module. It opens the theme of formation planning. One must distinguish between who produces contents (teacher) and who transforms …. these would be two different professions or must be competence of the same subject? There is an extremely rapid technological evolution and a trouble to run this evolution. But towards what direction? Who must define the directions? The market or the social and political community? Diffuse learning or institutional learning ….. but what instruments "strike" the different targets? One must pay attention because the "training forms" are numerous and those of informal type are often very active and diffused. What economical games are behind technological evolution? What does that involve for the world of distance learning. Synergy among: • Method • Content • Methodology

Opportunities	*Threats*
FAD opens horizons and spaces… virtual school-room is the place from which it is possible to get out (to navigate in the networks and in other communities). There is the tendency to pass from a logic of training length (UFC) to the average length connected with the education objectives. That involves a constant flanking by tutors who become strategic figures for learning. 3 levels of tutoring (ISFOL document); those figures are able to follow and to accompany education process and learning.	The great social discomforts are growing (the new poverties) and in this scenario the training policies must operate. The accessibility to hardware instruments doesn't keep up to cultural instruments. The connection costs, till now high in Italy, risk to hinder FAD economicity.

Opportunities	*Threats*
From the attention to the page (content) to the attention to the report (users-tutor, users-teachers …) The difference between who produces contents and who transforms. Interaction processes among different competences and different subjects must be activated, even if that involves initial high costs.	

Considerations and proposals
May be there are different development hypotheses between profit and no-profit organizations or with high educational vacation. The strategic figure is that of tutor …… it is necessary to deepen and clearly define it. It would be advisable to experiment activities of virtual school-rooms for real communities (working with groups homogeneous as typology, geography, or other through distance virtual activities). Theme to be deepened. The considerations on FAD theme cross with the welfare idea, with local welfare idea and of communication systems. It would be advisable to think over the technologies and the methodologies on the ground of participant typologies; the users must be considered more as a group than single individuals. It would be also advisable to work on communication forms and on the customs of the interested community. Knowledge sharing as learning model.

At the very end of the SLIDE Project a final seminar was organized in Portugal joining together all the project partners, many of the Portuguese entities that participated on the previous workshop and seminar and many of the Portuguese institutions that collaborated on the realization of the on-line questionnaire.

This final seminar was the most important disseminating event because it was an opportunity to bring together the project partners and many of the Portuguese beneficiaries of the project and it was an opportunity to present the results of the questionnaires and make an open debate about the added-value of e-Learning from different national perspectives.

Part V

Conclusive Remarks

We wouldn't like to close this report without some final remarks about the SLIDE Project and the partnership that made it.

SLIDE involved a transnational cooperation at all levels from the decision making to the activities. The transnational meetings were used to make the most important decisions all together and then all partners developed a similar work, originating products that express the multiple realities and perspectives.

The project was developed by a set of partners from a transnational network called NYMPHEA and an external partner from Iceland, trying to integrate knowledge and experiences of organizations from countries inside and outside the EU.

SLIDE got the involvement of the scientific community in order to ensure its technical and scientific quality and also to increase the potential of knowledge transference between researchers and practitioners.

The interest of this project transcends the partnership or even the NYMPHEA network. It reached many organizations that develop educational or training activities in the territories of the partners. As a result of this involvement we got products that reflect the situations the field and we increased the potential for the transferability of good practices within and across regions.

The project consisted in two complementary studies, combining an evaluation of the actual situation and the perceptions of the relevant actors about the e-Learning phenomenon.

The workshops and the seminars had both the regional and the transnational dimensions, broadening perspectives through the sharing of rich local experiences.

The field study embraced the opinions of students, tutors and administrators. Not many studies comprehend these these three groups simultaneously.

The most challenging goal of this project was to develop a common research with common frameworks and common instruments, considering that each country has different definitions of e-Learning, deals with different realities and aims towards different directions. This challenge was also the primary source of richness and made out of SLIDE Project an exciting experience for those that participated in it.

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