

DISTANCE LEARNING AND E-LEARNING IN PORTUGAL: A STUDY OF THE PERCEPTIONS, CONCEPTS AND TEACHING PRACTICES AT THE INSTITUTE OF EDUCATION – UNIVERSITY OF MINHO

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Abstract

This paper aims to update a method of understanding the domain in question. It is the outcome of a research carried out by a Working Group on Distance Education and e-Learning (GT-EADEL), based on the principles and initiatives stated by the executive board of the University of Minho's Institute of Education. This study was based on the need to identify perceptions, concepts, teaching practices and requirements in distance learning (EaD) and e-learning among lecturers at the Institute of Education, University of Minho (IE-UM) in order to better plan an intervention in awareness-raising and teaching in this field. Despite the specificity of the study in relation to the subjects involved, we believe that some of the aspects tackled, particularly those regarding what leads lecturers to use or not use an e-learning platform, may be useful indicators for other institutions committed to stimulating distance and e-learning teaching practices.

The data were gathered via an electronic version of the questionnaire 'Perceptions, teaching practices and requirements in the domain of distance education and e-learning'. This instrument was devised from scratch by GT-EADEL researchers. Seventy lecturers (from a total of 115) from the University of Minho's Institute of Education took part in the study.

This paper presents the data collected and the conclusions arising from their analysis in relation to some of the aspects studied. Of particular interest are the reasons given by lecturers for using or not using an e-learning platform, and the pros and cons of such (non) use.

Keywords: Distance learning, e-learning, teaching practices.

1 INTRODUCTION

The Working Group on Distance Education and e-Learning (GT-EADEL) is a direct result of the principles and initiatives stated by the executive board of the University of Minho's Institute of Education (IE-UM), to which it is attached. Thus, GT-EADEL aims to assist the achievement of IE objectives and mission by bounding key-documents such as the "Activities Plan to the year 2010" (PA-IE-2010) [1] and the "Evaluation and Responsibility Chart" (QUAR-IE-2010) [2]. Moreover, by engulfing the principles set in the "Activities Plan of the Working Group on Distance Education and e-Learning – year 2010" (PA-GT-EADEL-2010) [3], elements that currently integrate the PA-IE-2010 were taken as drivers of the group activities, that is, "to open more courses on distance learning education, enhance professors to make use of technologies and practices of *e-learning*, identify and increment curricular units that shall be offered (...) in *e-learning*" [4].

Additionally, GT-EADEL has attempted to help assure QUAR-IE-2010 (approved during the Institute Assembly) in which one points out the increasing number of curricular units on e-learning platforms, as well as courses with online components (b-learning). Yet, by the year 2010, the Institute of Education aimed to offer e-learning courses to 30% of the teaching staff [5].

Within such context, GT-EADEL has considered the development of a data collection process (with the objective of knowing and characterizing practices, perceptions and needs of teaching formation amongst lecturers at IE regarding Distance Education (EaD) and e-Learning) a priority element in its activities, so that initiatives to implement PA-IE-2010 and QUAR-IE-2010 are based [6]. The process considered the conception, validation, and application of data gathered in a questionnaire with IE professors (lecturers). The present paper describes this process. Data gathered are presented and discussed, and a set of proposals and initiatives to be developed are driven from some conclusions.

1.1 Study Objectives

As mentioned previously, the study aimed to “know and characterize practices, perceptions and formation needs pointed out by professors at IE relatively to Distance Education and e-Learning” so that activities that shall contribute to the objectives of IE (considering Distance Education and e-Learning), established in PA-IE-2010, QUAR-IE-2010 and PA-GT-EADEL-2010, are proposed and dynamized.

2 CONSTRUCTION, VALIDATION AND APPLICATION METHODOLOGY – DATA GATHERING INSTRUMENT

The questionnaire “Perceptions, teaching practices and requirements in the domain of distance education and e-learning” was devised out of the GT-EADEL elements and submitted to a validation process of content and shape. Various IE professors were involved in this process.

Observations and suggestions given by the professors that tested the questionnaire were analyzed, and the final version of the questionnaire was implemented in an online service (<http://pt.surveymonkey.com>); this service reached professors via an e-mail message sent by the IE President. Later on, three other messages were sent by the working group coordinator to motivate professors to answer the questionnaire. Additionally, in a very specific case, that is, the Department of Integrated Studies in Literacy, Didactics and Supervision (with the greatest number of professors and a low rate of answers), another e-mail was sent by the Director of the Department (answering a request from the GT-EADEL Coordinator) to motivate professors.

The questionnaire was online (June 10~30, 2010), being the first answers reported on June 11 and the last ones on June 26. It was a dynamic online questionnaire in which the sequence of questions depends on the answers to previous inquiries – thus, there are a global number of questions that might not be similar to all respondents, as we can infer by reading the dimensions included in the questionnaire and referred below. Closed questions were more abundant, though open questions were also devised. Additionally, some questions elicited mandatory answers and others, facultative ones.

The questionnaire engulfed the main dimensions described below:

- i) Biographic and professional characterization of the respondents;
- ii) Identification of the use or non-use of the institutional platform (Blackboard) on e-learning at UM;
- iii) Practices on how to use the Blackboard platform;
- iv) Reasons to use or not to use the Blackboard platform;
- v) Familiarization levels toward the Blackboard platform functionalities;
- vi) Perspectives on the level of decision and institutional relevance as to the adoption of a Blackboard platform;
- vii) Perceptions on potential advantages and disadvantages of the courses on distance learning/e-learning;
- viii) Participation or non-participation in e-learning initiatives and teaching needs; and,
- ix) Opinions and suggestions related to both existing and future devisable functionalities of the Blackboard platform.

The questionnaire included two open questions to elicit the availability of professors to share their practices on e-learning and to propose initiatives to be promoted at IE by considering the intervention on the e-learning domain; moreover, there might be opportunities to improve the questionnaire itself.

3 SAMPLE STRUCTURE AND CHARACTERIZATION

The questionnaire was spread via an electronic mail (todos@ie.uminho.pt), which includes the electronic mails of all IE professors. The study sampling comprised 115 professors (109 professionals working full time, and 6 professionals invited to work on a part time basis). The indicated values of the sampling are approximate as its counting was based on the RT-04/2010 Memo (dated July 29) and the RT-13/2009 Memo (dated July 31), which refer to the teaching staff throughout the academic year 2009-2010. During the academic year, there was a reduction on the global number of professors (as a direct result of several situations, e.g. retirement), but as we considered that their e-mail accounts remained active and that it was not possible to determine whether they had answered the questionnaire or not, those professors were included within the sample universe.

Table 1 shows the distribution of professors that integrate the study sampling from various departments at IE-UM.

Table 1. Distribution of professors in different Departments throughout the academic year 2009/2010

Departments	N# of professors		
	Full time	Part time	Total
Curricular Studies and Educational Technology	20	0	20
Integrated Study, Didactics and Supervision	39	0	39
Theory of Education, Artistic and Physical Education	16	6	22
Psychology of Education and Special Education	11	0	11
Social Sciences in Education	23	0	23
Total	109	6	115

Seventy answers were obtained from the questionnaire. We did not consider, for analytical effects, two questionnaires that only answered questions related to age and gender.

By considering the sample as coincident with the universe (as the questionnaire was sent to all professors) and the group of professors at IE during the academic year 2009/2010 (corresponding to a total of 115 subjects), the amount of 70 answered questionnaires correspond to a return rate of 60.9%. However, if we consider only the 68 fulfilled questionnaires that were analyzed, we can verify that the real answers correspond to 59.1% of the total number of professors within the study universe.

To verify the sample representativity in terms of the different IE Departments, we shall compare the number of professors in each department during the academic year 2009/2010 (Table 1) with the distribution of the number of respondents that belong to each of these Departments (Table 2).

Table 2. Distribution of the respondents by Department during the academic year 2009/2010

Departments	N# of professors		
	Existing	Respondents	% of answers by Department
Curricular Studies and Educational Technology	20	14	70%
Integrated Study, Didactics and Supervision	39	22	56%
Theory of Education, Artistic and Physical Education	22	9	41%
Psychology of Education and Special Education	11	6	60%
Social Sciences in Education	23	17	74%

We can see some differences of representativity at the various Departments within the global sample of professors by analyzing the percentage of respondents by department: the percentage of answers varies from 41% (Department of Theory of Education, Artistic and Physical Education) to 74% (Department of Social Sciences in Education).

4 PRESENTATION AND DISCUSSION OF DATA

The questionnaire "Perceptions, teaching practices and requirements in the domain of distance education and e-learning" was devised by the GT-EADEL elements and submitted to a validation process of content and shape. Various professors at IE responded affirmatively to such process.

We shall also emphasize, as mentioned previously, that in some cases the questions proposed to professors depended on previous answers. Thus, the number of potential respondents to each question is variable. Additionally, as not all questions were mandatory, the number of respondents varies from question to question.

Another aspect to be commented is that professors were told to answer the questionnaire by considering their activities during the academic year 2009/2010; professors that were not actively teaching in that period were told to report their activities during the last active academic year.

4.1 Biographic and professional characterization of the respondents

The total amount of 68 professors that make up the sample are predominantly (45.6% – 31) 40-49 years old with an average rate of 16.4 years teaching at the university (at UM, the average rate of teaching experience was 17.5 years). These professors are predominantly females (60.3% – 41 – respondents); this vale is approximately 7% higher than the percentage of females within the

considered universe (53%, being 61 females in a total of 115 professors). All in all, professors aged 40-59 correspond to 86.8% of the total amount of respondents.

4.2 Reasons to use or not e-learning platforms

One of the aspects to be identified engulfed the reasons through which professors do make use of an e-learning platform. The answers returned were diffusely spread through the affirmatives presented in the questionnaire; another reason (excluded from the answer possibilities devised previously) was cited by a professor: the affirmative explicitly reported that the use of the platform “promoted online collaborative apprenticeship processes”.

The three most reported answers for the use of the platforms by professors were, in decreasing order of importance: “ease of information availability to students (82.1% - 32 respondents), “ease of communication among students” (41% - 16), and “the number of students that might not attend classes” (38.5% - 15). These referred advantages reveal that professors might focus on the use of the platform related to their interest and utility to students. We consider such aspect extremely positive.

As to the reasons that professors state to explain the non-use of e-learning platforms, the returned answers reported reasons present in the questionnaire, but also another set of reasons that were not initially devised. By analyzing the answers we might emphasize the most reported reason for not using the e-learning platforms “the lack of appropriate competences” (44.8% - 13 respondents). Additionally, 13.8% (4) of the respondents reported the non-use of e-learning platforms “due to a shortage of available time to update in the area”, and 10.3% (3) of the respondents stated “by lack of information about it”. An amount of 11 respondents (37.9%) reported the complexity of use of the platform as the main reason. By considering these reasons, we clearly see that the lack of knowledge and competences in making use of e-learning platforms, reported by many respondents, should be an indicator for initiatives to IE professors in that domain.

Another set of reasons pointed by professors relates to the “lack of time to organize materials and activities on the platform” (34.5% - 10), which is also similar to the previously mentioned “lack of time for courses in the area” (13.8% - 4). It is important to note that any initiative that attempts to promote the adoption of e-learning practices with professors should foresee their difficulties, not only in relation to their teaching experience itself, but also to the implementation of acquired knowledge.

A significant number of respondents – 34.5% (10) – reported that they did not use the e-learning platform as it may “...make the contact with students less personal”; a number of references are added to that statement, among which one that says that the platform is not used because it may “lead students to not attend classes” (6.9% - 2). Another aspect to be emphasized is the fact that 17.2% (5) reported that “...there was no pedagogical utility in the online platform”.

As the questionnaire aimed to “know and characterize practices, perceptions and teaching needs of the IE professors related to Distance Education and e-Learning”, it is important to identify reasons for the “non-use” of the platform. Within the present paper, though, discussions on fundamentals or impressionist features should be not considered. However, we did consider that the mentioned reasons point out the need to organize opportunities for debate and teaching experiences on the e-learning problems by considering pedagogical views and including socialization and communicational aspects.

Another reason is the fact that 10.3% (3) of the professors reported that do not use the platform “because they do not want to make personal/class materials available online”. This aspect may be based on various motivations and might be linked to some authorial issues, what suggests that it is relevant to build up support situations so that such problem is cleared.

Some of the previously mentioned reasons are again reported by professors when they checked the “Other reasons” box. Thus, new references to aspects related to pedagogical approaches arise, including questions on “communication”. Similarly, references to the inadequate use of the platform within the Curricular Units (UCs) are also related to other services that are dealt with by professors as substitutes to the use of the *learning management system*.

We should also emphasize that professors recognized that e-learning may be “important to students who also work”, and that it is “an advantageous alternative to the post-labor formation”. As a high number of professors agreed with this aspect, we particularly emphasized it by taking into consideration the current profile of the undergraduate student population.

A very clear aspect when one reads the data is that 68.2% (45) of the professors agreed with the statement that “the adoption of e-learning practices implies an increasing amount of work to the teaching staff”. Such aspect is to be considered when professors mobilize any efforts to promote e-learning practices.

4.3 Advantages, disadvantages and problems related to formation opportunities on the distance learning/e-learning modality

One of the important aspects of our analysis is related to IE professors’ opinions regarding pros and cons/problems that they considered to be associated with formation opportunities on the distance learning/e-learning modality. Obtained answers (two open questions) were analyzed in terms of content to which two categories were built.

As to pros, the categories that engulf a larger number of occurrences were “access to new publics” (20 occurrences), “teaching task facilitation” (14 occurrences), and “learning time flexibility” (13 occurrences).

As to the access to new publics, professors include various reasons to such advantage, among which a broader geographical area for a potential target-public (including international fields), the possibility of reaching those students who cannot attend on-site classes (due to professional reasons), and the possibility of reaching students who prefer online education. We should point out that, according to the obtained data, professors stated that “there are a number of students who cannot attend all classes” (38.5% - 15 respondents) – such reference was one of the most reported reasons for the use of e-learning platforms.

As to teaching task facilitation, most references are related to an easier way to store, make available and organize pedagogical documents directed to students, though some references are linked with other aspects such as the “use of illegal copy detection tools” (one reference), and “faster ways to process ‘administrative’ pedagogical items” (one reference), in terms of functionalities such as “topics” and “evaluations”.

As to learning time flexibility, references are very homogeneous: there is an emphasis on the fact that students may manage their learning periods according to their available time and needs.

The category “improvement of professor/student communication” comes with ten occurrences, being that an important aspect of the interpersonal communication skills between tutor and students. The category “higher studying autonomy rates” comes with nine occurrences, and one can see the emphasis on higher levels of autonomy related to an auto-regulation capacity throughout the learning process taken by students. On the question of why e-learning platforms are used, 30.8% (12) professors reported that “they enhance students’ autonomy”.

The categories “diversification/flexibility of forming opportunities”, “rethinking pedagogical practices” and “cost reduction” all come with five occurrences each. The first one focuses on the institution, as this is, according to professors, the potential place where forming opportunities shall be diversified and made flexible. As to “rethinking pedagogical practices”, there is a clear perception that by adopting e-learning, professors are to rethink their teaching practices. As to reducing costs, professors’ answers are generic and we could not identify whether they focus on the institution, professors, students or different combinations of such plausible possibilities.

Some of the pros previously mentioned are also reported by some authors [7], [8] e [9], particularly those related to *higher autonomy rates*, *public diversification* (with higher offer opportunities), and *cost reduction*.

Conversely, other authors [10] also refer *an available system at any time and any place*, *ease of management* and *teaching time optimization* as advantages.

Regarding cons, the two categories with most occurrences are “less importance of on-site classes and professor/student interaction” (22 occurrences), and “increasing time on teaching activities” (15 occurrences). The relatively high number of references in these two categories is to be emphasized as it might lead professors to invest time on e-learning practices.

The category with the highest number of occurrences – *less importance of on-site classes and professor/student interaction* – is also referred [11] where authors relate such type of formation opportunities a disadvantage, i.e., the lack of a human relation among tutors and students, and among students themselves.

It is important to emphasize that though e-learning advantages focus on facilities and ease of communication between tutor and students, as reported by professors, they may also be considered negative when devaluing the communication and interaction between professors and students working on “on-site” classes.

We shall also point out the categories “reduced computer-like skills by professors and students” and “lack of socialization within the university environment” (9 occurrences each). The first category drives us to an aspect that was considered less relevant as it can be surpassed easily by the subjects themselves. However, we should stress that, according to data, 44.8% of the total number of professors (13) state the “lack of appropriate competences”, and 37.9% (11) state the “complexity of the platform use” as reasons for not using the e-learning platforms. These aspects are related to computer-like tools literacy.

The issue on the lack of socialization at the university environment requires more pondering as it may be more concretely associated with the question surrounding distance education and e-learning. We should keep in mind that 34.5% (10) of the total number of professors state that the use of e-learning platforms “makes the contact with students less personal”, and thus avoid their use.

Categories with less numerical expression, but more significant in terms of content and, consequently, of rethinking, are related to “loss of apprenticeship quality” and “difficulties in controlling the individual student work” (four occurrences each). These two categories link to pedagogical worries with which debate and doubt-clearing should be enhanced.

5 FINAL CONSIDERATIONS

As we did not feel the need to ask professors to justify their answers when the questionnaire was devised, such gap was cleared by analyzing the answers. Virtually, listing pros and cons/issues (important aspects to investigate such formation opportunities) does not allow us to explore respondents’ motivations regarding their answers; thus, the richness of analyses was decreased and we did not have a broader comprehension of the referred motivations. However, we considered that all answers obtained from respondents (professors at the Institute of Education, University of Minho), both in terms of cons/issues and pros, are fundamental analytical dimensions so that we can think of the massive use of such teaching type. On one hand, in terms of pros, it is doubtless that such formation opportunity will promote the access to a larger number of social actors whose geographical distance is a restricting factor to attend university classes, or to publics from different countries and/or continents where there is not a formation opportunity such as the type mentioned in this paper.

On the other hand, in our view, it is important to mention the category related to “diversification/flexibility of formation opportunities”, mainly because such category makes us think of a lack of one-way formation; thus, we can think of the importance of a university institution when offering more than one type of formation, as well as the need of not replacing the existing on-site formation opportunities. Consequently, a newer formation type might be enriched. We should emphasize that 78.8% of the professors either “agree” or “totally agree” with the statement that “the adoption of e-learning practices, as a kind of supportive modality to on-site teaching, is momentous to the Institute of Education”; equal percentage of professors “agree” or “totally agree” that “the adoption of e-learning practices, as a distance education modality, is important to the Institute of Education”. Such aspects suggest that the strategic dimension of this educational modality is valued.

Relatively to some of the categories built, in terms of cons, the highlighted one in number of occurrences – “less importance of on-site classes and professor/student interaction” – deserves a deeper reflection by the time such formation opportunity is accepted as general. This type of formation simultaneously inhibits socialization processes that are possible in presence – and crucial not only to the cognitive development of students but also to the social learning enhanced with this verbal-presence interaction – and does not allow, or at least limits, the verbal interaction between tutor and students and questioning, being these enhancers of better learning resulting of the verbal-presence interaction. This reflection leads us to the category “lack of socialization within the university environment”, which is also identified in the answers obtained from professors.

“Increasing time on teaching activities”, a category with 15 occurrences, also deserves attention due to the fact that a university professor should, by excellence, investigate and teach. Such type of formation opportunity may demand an effective increase of time, namely the conversion of content to be made available and the initial phases of a more systematic use of the e-learning platform; thus, we shall think of human resources to accomplish a certain type of tasks that do not require any

professors' specialized knowledge, which would otherwise deprive them of temporal availability and psychological conditions (factors that are necessary to achieve professional goals).

As final words, we point out the need to consider both potentials and risks of such a formation opportunity type, making it "a competitive advantage" within the institution without putting at risk important dimensions of the learning processes and socialization in a university context.

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