

Face to face learning methodologies vs Distance learning methodologies: Case study online using qualitative analysis.

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This work results from a case study focused on the adult education and the use of ICT as learning tools. The study is supported by the Grounded Theory approach and it uses Atlas/ti software to help organize and analyse the 22 semi-structured interviews that were applied online concerning the different available learning methodologies. The study relies on the answers of the participants that were involved in learning processes, using different kinds of learning methodologies (F2F, e-Learning and b-Learning) and organized by a long life education centre (MIXGEST) for the past two years. The conclusions led us to the development of several semantic networks that expresses the relations among the different kinds of learning methodologies, comparing the advantages and disadvantages pointed out by the participants with similar studies.

Key-words: Long life learning; face to face learning; e-Learning; b-Learning; Grounded Theory

1. Introduction

The advance in research and development in Information and Communications Technologies (ICT), especially the improvement of learning systems based on the use of computers and communication via computers, has encouraged the emergence of new methods of teaching and learning more efficiently.

There are several different factors that pressurise and stimulate the performance of distance learning systems, especially the ones that involve ICT, to increase their capacity to simulate and carry out learning, in order to attain similar standards to face to face learning.

This study used a questionnaire sent out to students who had participated in learning activities during the previous 2 years. The purpose of the study was to gather the opinions of these students about the learning methods available in the market, with regard to face to face learning, e-Learning and b-Learning.

Based on the answers received, and supported by Grounded Theory, the main ideas were extracted from the data, which lead to the construction of a theory on the use of the available methodologies.

2. Methodology

2.1. Questionnaire and data collection

The information used in this study was taken from the database of past and present students from Mixgest - the *Centro de Formação e Apoio à Empresa, Lda*. This company, whose main activity is lifelong learning for employed adults, supplied the e-mail addresses of the students who had been involved in training activities organized by the company in 2004 and 2005.

During the period under study, 395 students participated in learning activities in Mixgest, of whom 201 were male and 194 female. As we can see in Table 1, there is a predominance of face to face methodology students.

Table 1 – *Distribution of students by learning methodology*

Methodology	N.º of Students	%	Students with e-mail	%
Face to face	329	83.3%	58	46.8%
e-Learning	22	5.6%	22	17.7%
b-Learning	44	11.1%	44	35.5%
Total	395	100%	124	100%

Source: Mixgest, Lda

After analyzing some technical options about the best solution for the on-line survey, it was decided to build a webpage, located in Mixgest's web server. The webpage link was sent to the students, with an e-mail message explaining the purpose of the survey and the study we intended to make, asking the students to use the hyperlink to enter the webpage and answer the questionnaire.

The survey took place between 1st of May and 20th of May, 2006. The first e-mail was sent on the 1st of May and after 15 days a second e-mail was sent to all the students, once the initial sample had been corrected.

2.2. Scope and theoretical sample

The scope of this study included all of the students that had participated in learning activities with Mixgest, Ltd during 2004 and 2005 and whose e-mail addresses were available. We sent 124 e-mails, so the sample was the same as the scope.

2.2.1. Correction of the theoretical sample (corrected sample)

An initial e-mail message was sent to all the students, but 53 were returned by the recipients' e-mail server. Of the 124 e-mail addresses available, only 71 were valid e-mails and 53 had syntax errors or other error messages sent by the recipients' e-mail server.

The message was sent again 15 days after the first e-mail to the students whose mail server indicated that the mail box was full or temporarily out of service. All the others that had been returned as not existing in the destination server were removed.

8 messages were sent a second time, but these were again returned and eliminated from the sample. Once all the corrections had been made, there were 63 correct student samples.

2.3. Questionnaire structure

The questionnaire was divided in 2 parts. In the first part the objective was to collect information on the respondents, such as age, academic qualifications, computer and Internet use, etc. The second part was the body of the survey, and had 5 open questions related to the topic to be studied.

Thus, the questionnaire consisted of 10 questions, 5 of which were closed answer - to characterize the type of student - and 5 were open answer questions - to find out their opinions.

2.4. Data processing

In order to simplify the data processing, we used ATLAS/ti software to help the organization and codification of the questionnaires.

Following the Grounded Theory, the data collection was initiated through non-structured interviews. These interviews were transcribed, in order to obtain a reliable analysis and codification of the data, using systematic comparison of the results. The process of categorization was guided by the participants' own words.

In the next phase a list of the categories found in each interview was prepared. These categories had been defined using self-analytical notes, which contributed significantly to the construction of this theory.

As the survey progressed, the need emerged to establish relationships between the categories that were found, which lead to increasingly complex levels.

All the categories that were not directly related to the basic social processes found were relegated to a second level or, after being compared and contrasted, included in another category.

Through these processes, the behaviour theory implicit in the study was gradually taking form and the number of categories was reduced, due to the theoretical saturation they produce.

3. Survey results

3.1. Characteristics of the sample

We received 22 valid answers during the period in question and no additional clarification was requested.

Thus, the success rate is about 35%, distributed by gender as follows:

Table 2 – Respondents - distribution by gender

Gender	No.	%
Male	10	45%
Female	12	55%
Total	22	100%

Source: The author

The average age of the respondents was 32, the youngest being 19 and the oldest 61.

The majority of the respondents had higher education (63%) and only 3 claimed to have less than 9 years of education.

Participation in learning activities during the last 2 years was divided as follows:

Table 3 – Participation in learning activities during the last 2 years by learning method

Learning Method	Participation
Face to face	18
e-Learning	7
b-Learning	5

Source: The Author

The great majority of the respondents participated in face to face courses, while 5 of them also participated in distance learning programmes. Only 4 participated exclusively in distance learning programmes and another 2 stated that they had tried all these methods some time during the previous two years.

3.2. Analysis of the Results

Using the answers to the questionnaire, and after analysis and interpretation of the data gathered, it was possible to create flow charts, linking the ideas that had emerged from the survey.

Figure I shows how students that participated in face to face learning methods opted for or considered the option of distance learning methods.

One of the main advantages with the face to face method is the existence of a human relationship, not only between students, but principally with the teacher/tutor.

The great majority of the answers indicate that the establishment of face to face relationships with the teacher leads to increased participation by, and motivation of, the students, allowing an interaction that is not available with the other methods.

However, there are certain disadvantages with the face to face method, such as the rigidity of schedules and the need to travel, while these very same reasons were indicated as being the most important advantages of distance learning processes.

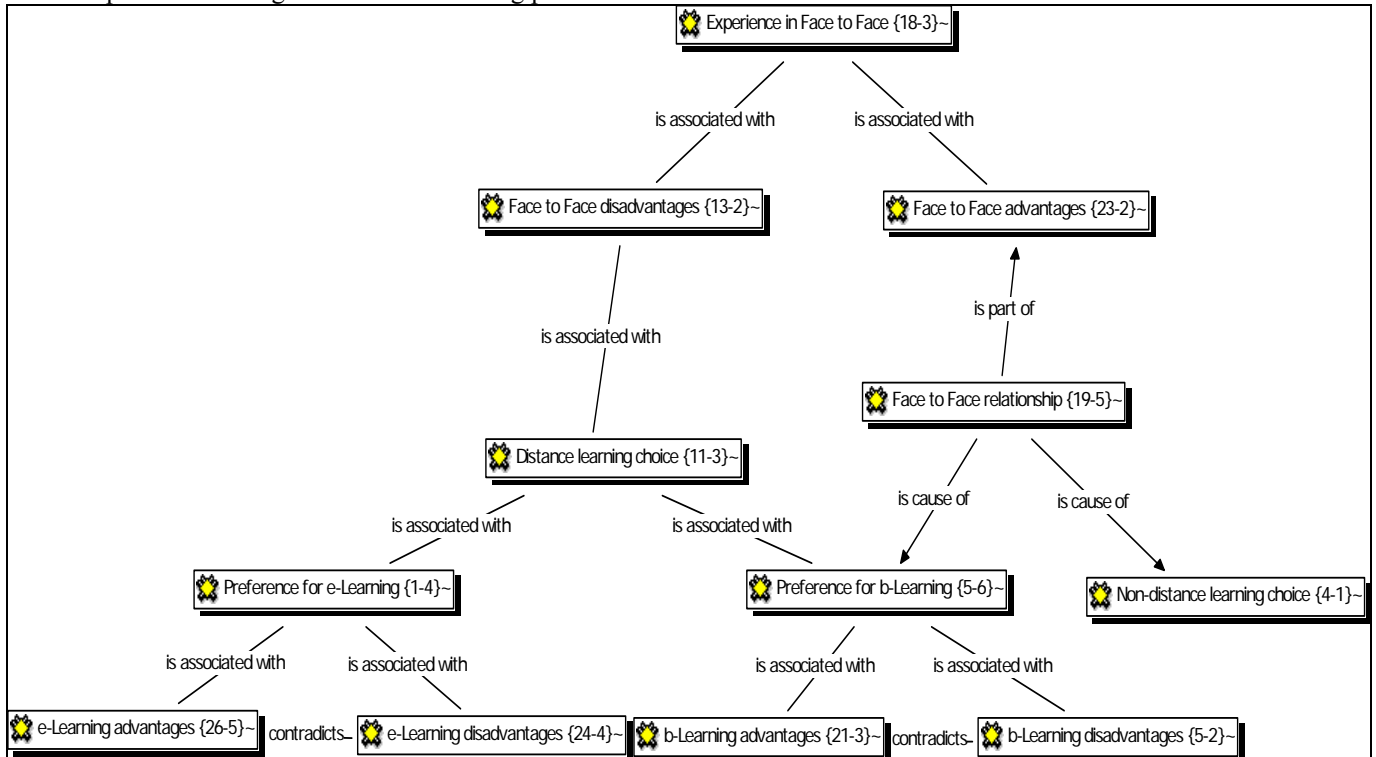


Figure I – Relationships between the methods¹

Source: The Author

As we can see in the code “Preference for e-Learning” in Figure I, only one student indicated a clear preference for e-Learning. However the code “Preference for b-Learning” showed 5 references, which makes clear the preference that these students have for b-learning.

One of the main advantages of the face to face method is the teacher/tutor relationship and this is also one of the reasons that students prefer b-Learning methods.

The preference for e-Learning is clearly due to the advantages and disadvantages of this method, and there are some essential conditions that lead to this choice. The students refer to the versatility of the e-learning platform (LMS), the teacher/tutor capacity for motivation and the shorter duration of the courses as the keys for a successful e-learning process.

The characteristics of the platform used in distance learning processes are crucial when choosing the best learning method. The requirement to have deep knowledge of ICT technology, the complexity of the menus and the language used are all reasons for rejecting this method.

On the other hand, the techniques used by the teacher/tutor to motivate and to make the learning sessions more dynamic are the cornerstones of all distance learning processes.

When questioned about the best methodology for them, only one student was evasive in their answers, but all the others justified their answers.

¹ After the code name ATLAS/ti software shows the number of references made by the students to that code and after the comma the number of logical relations with other codes.

Although some students had never tried any distance learning, there is a preference for this method, although those students who chose face to face learning refer to their need for close relationships with other students and with the teacher/tutor as the main reason for their choice.

In addition, the need to have personal relationships was the reason for the students preferring b-Learning to e-Learning.

The comfort, easy schedules and the flexibility of distance learning, together with the possibility of face to face relationships, personal knowledge and human warmth, shows that b-Learning is the preferred method for most of the participants.

However, of the 11 students who chose distance learning as the best method, only 6 specified the type of distance learning method they preferred, and it was not clear which was the option of the remaining students.

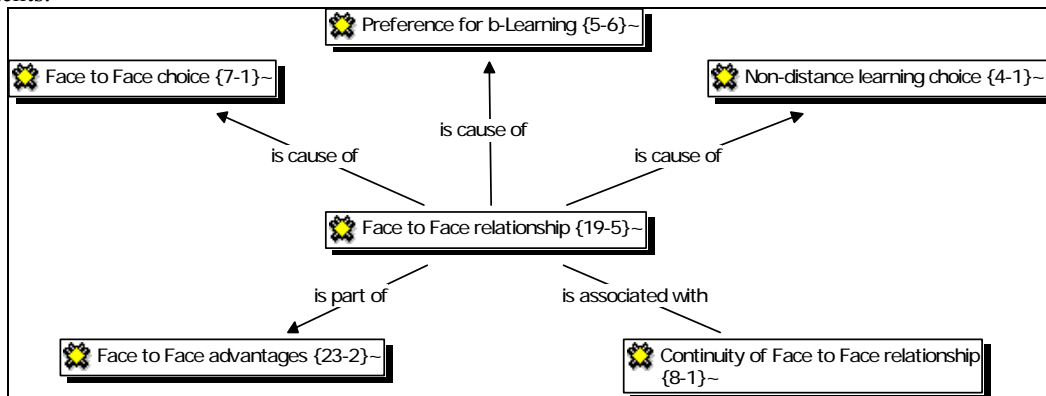


Figure II – Preference for b-Learning

Source: The Author

The face to face relationship seems to be the cornerstone of all the learning methods, and is considered to be the main advantage of the face to face method and is also the main disadvantage of distance learning methods.

However, when questioned on the maintenance and depth of the interpersonal relationships that had developed during the courses, there was a convergence. Whatever method chosen, only some students stated that they continued to be in contact with former teachers or colleagues, and added that the use of ICT had helped this relationship.

Another group considered that the relationship always remained formal, even with face the face methods. A minority stated that ICT works as an “ice breaker”, by facilitating the communication and relationship between participants, and even after the learning sessions were over.

4. Conclusions

After analysing the results, we can say that there is still some resistance to the new learning methods based on ICT. The need for human contact and face to face teaching are indicated as being the main disadvantages of distance learning.

Face to face learning methods continue to be preferred by those who are searching not only for new knowledge, but also new friendships and direct contact with the teacher/tutor. The tutor continues to be seen as a trustworthy and reliable element of the process of education, with this new role being underestimated by some of the students.

Of the distance learning methods, b-Learning is preferred over e-Learning exactly because of the lack of the human dimension in e-Learning. Most of the students that think that distance learning methods are the ones that best fits their needs chose b-Learning.

The comfort, easy schedules and the flexibility of distance learning, together with the possibility of face to face relationships, personal knowledge and human warmth, shows that b-Learning is the preferred method for most of the participants.

As indicated by most students, the contacts made during the learning sessions are ephemeral, and are mainly superficial. Some students think that the distance can facilitate the contact between participants in learning sessions, and that they are an excellent “ice breaker” for the very shy.

The students that participated in b-Learning, considered that the relationships with other students and with the teacher/tutor was similar to those made in face to face learning, even though there was less face to face contact.

Although some interesting conclusions can be drawn from this survey, it was not possible to extrapolate them further due to the small number of valid answers.

However, it can be said that b-Learning is the future trend for distance learning for motivated adults, which could be the topic for much further discussion stimulated by this survey.