

WEB DISTANCE EDUCATION: A STUDY OF THE STUDENTS PREFERENCES

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The present paper evaluates social representations on Distance Learning - DL, computer aided, and it's impact on the decision of choosing to attend an all distance graduation course. Last year high school public and private students along with graduation students from a university that is using TelEduc environment as an aid tool to presence of body activities were interviewed, checking the technological profile of each group and their DL concepts, trying to identify against reasons, contributing to DL implementation on the subject university

Keywords: Technology of the Information, Education In The Distance-Web, DL Management.

EDUCAÇÃO A DISTÂNCIA

Este artigo avalia as representações sociais sobre Educação a Distância-EAD, oferecida por computador, e o impacto delas na decisão de optar por fazer um curso de graduação totalmente a distância. Foram entrevistados grupos de alunos do último ano do Ensino Médio oriundos de escolas públicas e particulares e grupos de alunos da Graduação de uma instituição de ensino superior que fazem uso do ambiente TelEduc, como apoio ao ensino presencial, identificando o perfil tecnológico de cada grupo e as concepções de EAD que possuem, visando a identificar os possíveis impedimentos, contribuindo para a gestão e implantação da EAD na Instituição de Ensino Superior estudada.

Palavra-chave: Tecnologia da informação, Educação a Distância por meio da WEB, Gestão da EAD.

ABSTRACT

The present paper evaluates social representations on computer aided Distance Learning - DL, and its impact on the decision of choosing to attend an all distance graduation course. Last term students, both from public and private schools were interviewed to evaluate the technological profile and knowledge of each group and their DL concepts, in order to identify factors that help DL implementation on the University Studied. Results show that DL is seen as a way to access higher education, although it is also seen as a low quality option.

1. INTRODUCTION

Information importance in contemporary world makes us believe that technological innovation gives competition differentials. Then the way that schools deals with information technologies development will determine their positions and survival in a highly growingly competitive environment, or in other words, if the school will be able to remain in the scenario where it presently exists.

According to NÓVOA (1999) in the past 25 years, educational pools have shown the need of the school abandon its pedagogical insulation and then integrate their surrounding social universes. This means understanding that school is inserted in a context where exists technological and scientific advances that demands a new ethics, a new social compromise, and a new look on different ways of performing education.

POTTER (2003:14) affirmation that “who searches a professional career submitted to reliability cannot ignore the power and the revolutionary rules that IT (Information Technology) represents in the chosen area” gave meaning to the present study. Being school organizations the ones that need to be managed targeting the client and the market, without loss of its final goal, IT must be used to aid administration and academic processes.

There are many IT applications in schools. In the administration it has been used to accounting the electronic check frequency presence of teachers and staff, paycheck printing, buying, paying bills, tax accountings, financial declarations, materials control, and fees paid by students, in debt students list, investments per business branch, library control and so on.

In the academic area its applications are academic information on students generated by teachers and by the management, using of intranet and electronic mail, and finally distance learning.

According to POTTER (2003):

“Being away from IT is certainly inefficient and of low value to the majority of modern organizations. Enterprise systems that use IT allow us working with more intelligence and efficiency.” (Potter, 2003: 06).

Considering IT evolution, to know the profiles of the future students that live in the city where the University is located, and the school's present students profiles about computer aided distance learning offer was the goal of the present work, that starts with a reflection about the relationship between IT and education, and the possibility of education be offered through WEB, as a competitive differential, innovative and inclusive. Followed by the presentation of the applied methodological procedures and results achieved, analyzing the impacts of conceptual decisions of attend a DL graduation course through WEB. Finally it presents the final recommendations, commenting the results.

2. TECHNOLOGY OF THE INFORMATION AND EDUCATION

IT on O'BREIN (2004:27) vision embraces a set composed by "software, hardware, telecommunication, database management and other IT procedures used on computerized information system.

According to OIEIRAS(2006), due to the growing of Internet a great number of people started logging in the international network benefiting on the facilities of communicating to other people through IRC channels, e-mail and forums among other services. Knowing how to use Internet as an efficient way of communication, creating virtual classrooms spaces is a strategic matter that allows the education manager offer its services and products on a local scale, national and then the whole world, in a differentiated and innovative way, promoting the growing of its business. The school needs to be centered in the emerging virtual interactivity, abandoning the belief that quality education can only happen through the presential transmissions rites.

REIS (1996), states that DL is a methodology, it is another way of learning, which uses other media beyond teacher mediation, such as printed material, radio, television, computer, video in order to enrich the learning relation. He gives an alert on the fact that if the teacher is unable to use such media, the process becomes poor and certifications lose their value.

Continuing his reflection on DL, REIS (1996) states that in a world where the major characteristics is uncertainty and rapid changes, teaching toward citizenship and decision making depends on creating conditions in which individuals will know where look up for information and further know how to use them, choosing among new and multiple options what really matters. Only then we will have conditions to face the double challenge of entering in knowledge era and face the concurrency of a global economy, raising the social-economic and personal levels of the population.

According to SILVA (2000:72), school must abandon its defensive position and insert itself into the communicational experiment lived by its students, leading its teachers toward assume the digital challenge and the new communication way, absolutely different of the adopted one, that is totally linear. Teachers shall understand that they will stop being simple knowledge transmitters becoming problem formulators, questions causers, team coordinators, experience enablers and live memory of an education that, instead support itself in the past, value and allows the dialog among cultures and generations.

SILVA (2000:137) also says that the schools have been preparing its students to occupy real spaces in the manufacturer's world, forgetting the virtual space, the cyberspace. He also points that computers technical development is bringing big changes in the way people organize, produce and build information, providing users with a freedom of browsing information in an aleatory and interactive way.

According to OIEIRAS (2006:), the technological evolution and Internet consolidation have lead computer researchers and professors to develop computer tools directed to a new way of performing DL, trough utilization of Internet.

So, it is a primordial condition to success achievement on using IT in education, the destruction of the idea that the only and most adequate way of teaching with quality is having students lined into classrooms with presential teachers, and constructing the idea that the WEB is a great opportunity channel, as we can observe by its utilization on non educational activities by adults and young people.

DISTANCE LEARNING BASED ON WEB

According to NUNES (2004), DL – Distance Learning, has as basic feature the construction of a two way communication, where the teacher and the student are not placed in the same physical space, tough needing means to enable communication among them. It assumes the utilization of multiple ways to grant transmission effectiveness, reception and creation of an educational process.

Before the WEB, DL was offered trough a variety of resources, via text, video and audio. With the development of computerized researches, DL acquires a new media, the WEB resource. DL trough WEB uses the computer to automate learning and teaching process, in an environment of virtual learning, convenient to knowledge building trough interactive tools.

The university that has been the present research subject of study has implemented a Distance Learning Nucleus that has as it's main focus “developing abilities and competencies in the utilization of distance learning technologies, among academic community, as offering continued formation of extension, pos-graduation, e-learning, projects and researches, targeting developing the scientific knowledge searching, to give the opportunity of access to systematic knowledge, toward social inequality reduction and enabling a better quality of life”. This is why it uses the TelEduc environment to the creation, participation and management of WEB courses, TelEduc being a free software package that can be redistributed or modified under version 2 of GNU General Public License, as published by Free Software Foundation.

According to OIEIRAS (2006), TelEduc environment has been developed in 1997 by two researcher teams, from the Informatics applied on education Nucleus and the Institute of Computation of the Universidade de Campinas, having as its goal develop an environment that is able to allow the formation of teachers dedicated to the educational informatics, trough training and utilization. TelEduc has been developed on a participative basis, meaning, resulting in the building of adequate and adjusted tools to the needs reported by users. Then, TelEduc shows characteristics that differentiates it from other distance learning environments, available on market, having as its highlights the easy use by nom computer aware people, the flexibility about how and when to use it, and a fair set of functionalities.

According yet to OIEIRAS (2006), as a mean to break with the vision of message-pigeon of DL practicing, TelEduc environment is configured as follow: “To the left (blue portion of the screen) there are the tools that will be used during the course and to the right (white portion of the screen) the contents related to the selected tool is showed”.

With the help of a collection of technologies it is becoming possible to surpass all physical barriers among nations. Internet technologies as Netscape, Google, Yahoo caused a meaningful impact on the way people do business and in the way people do education, opening a great opportunity to universalize education, much more than the biggest communications network build by men, to use Internet to rethink education is the big challenge of this decade.

It is important to state that TelEduc environment is not an ended project. As it is used and tested, pools are done, causing changes in its structure, as a way of meeting the needs of users, teachers and students.

3. METHODOLOGICAL PROCEDURES

The adopted methodology combined theoretical and descriptive researches. After seeking the bibliography on the subject, a pool has been created, with open and closed questions, obeying the following logic: questions to identify the technological profile of answerers, questions formulated according to Likert model, in order to measure graduation courses concepts offered through WEB based DL, varying from totally disagree to totally agree, and questions to evaluate the utilization of TelEduc environment as a supporting tool to on spot courses to graduation students. Data was formatted and analyzed using graphics and under deductive method.

Pool environment was composed by 45 students of a public school close to finish their medium grade course and 34 students of a private medium course school, two classes of graduation courses of a private university that uses a DL environment as an aiding tool to its presential courses, located in the south of Rio de Janeiro State, Brazil.

A criteria to data analyses and was a pool separation on the three subject groups of study in two groups: those who would attend a WEB based DL course and those that would not, to compare results obtained from the different studied groups, public school medium students, private school medium students and university students that uses the TelEduc environment, as a support tool to presential learning, trying to identify possible causes of refusals.

Pools were applied by three professionals oriented by the researchers, and were held with permission of schools principals.

In order to tab the items of Likert scale relative to students conceptions toward DL our strategy was classifying results in three groups: pro, against and not clear. Answers like totally agree, and agree with restrictions was accounted on the agree group, totally disagree and disagree on certain aspects was accounted on against group.

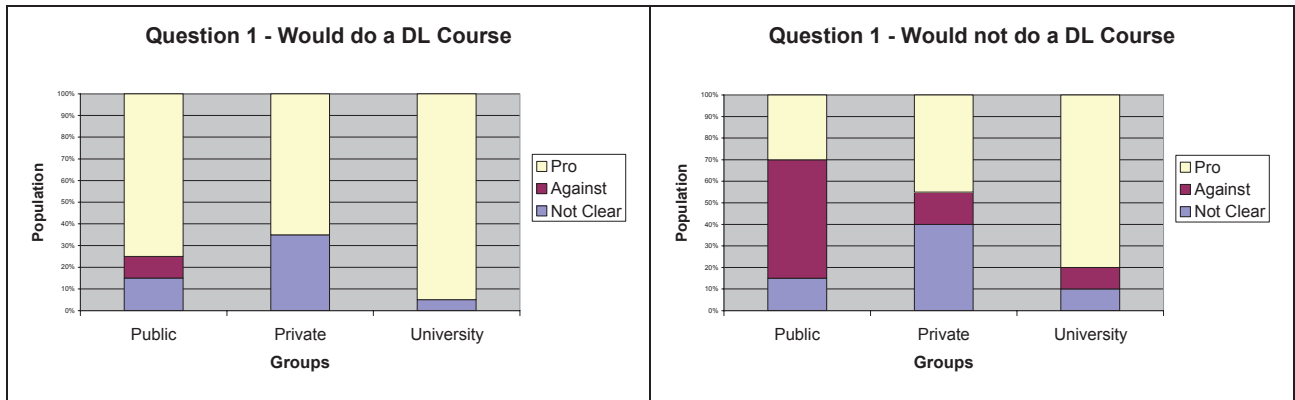
4, RESULTS AND DISCUSSION

In the questions related to the studied groups technological profile identification, it was verified that 80.3% of the study universe has a personal computer and 50.5% has an internet connection and those were not determiner factors to the option of attending an internet based DL graduation.

79% of the studied population has already heard about distance learning and 100% of the medium grade students have never attended such a course.

Finally it is important to state that the average time navigating on internet is of two hours and thirty minutes per day and that the most used services are search engines, school task researches, chat and e-mail.

Question 1: DL grants democratic access to superior education. The student is able to work and attend university without leaving his home, during his available time. Barriers and time limitations are eliminated



Graph 1

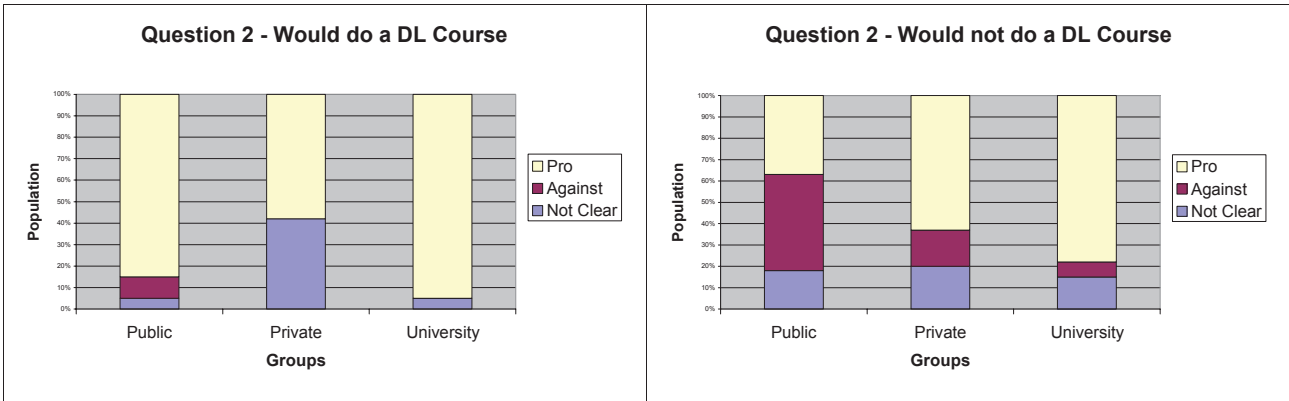
Graph 2

Graphics allows a comparison of the answers of those who would attend a WEB based DL graduation and those who don't. It is clear that those who would attend a WEB based DL graduation has shown positive attitude toward the idea that DL grants access democratization, because the student can attend the course without leaving his home and can choose the most convenient time to study.

Those who would not attend, and that came from public and private medium school grade do not agree with this idea mentioned above, although the ones coming from the superior education has shown a positive attitude.

Data shows that this conception was meaningful on the choice on attend and WEB based DL graduation to the medium grade students, this means that they understands that DL is an opportunity of attend university while working in a regular basis, without leaving home, during their available time, eliminating barriers and time schedules limitations.

Question 2: DL offered based on Internet grants the student the possibility of managing their own time of study: the student can make his own time schedule to study. The student builds his knowledge on his own rhythm and keeps in touch with his teacher.



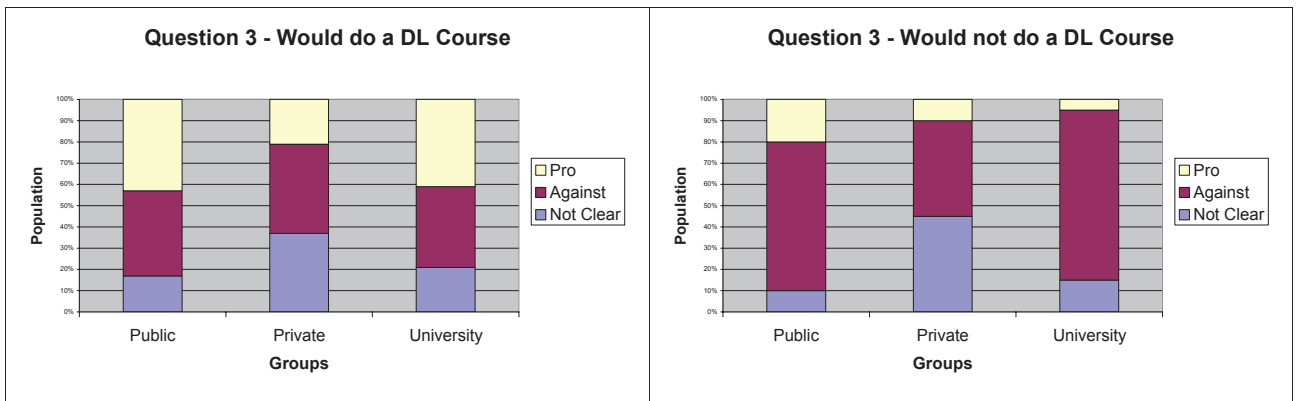
Graph 3

Graph 4

Students that would attend Web based graduation courses showed positive attitudes to the conception that DL grants the possibility of managing his own time schedules to study, as medium private school students and superior students that would not attend. The public medium school students have disagreed on this affirmation.

On general the studied population has shown a positive attitude toward this conception, and this can be used as an advantage in the offering of this way of study.

Question 3: A graduation course offered trough DL, innovative pedagogy, has the same quality as the offered on the presential method.

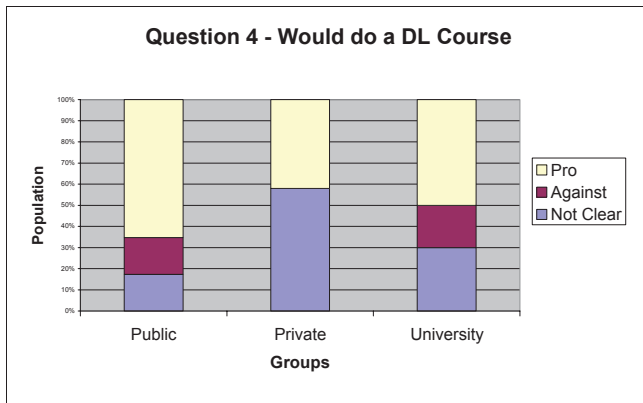


Graph 5

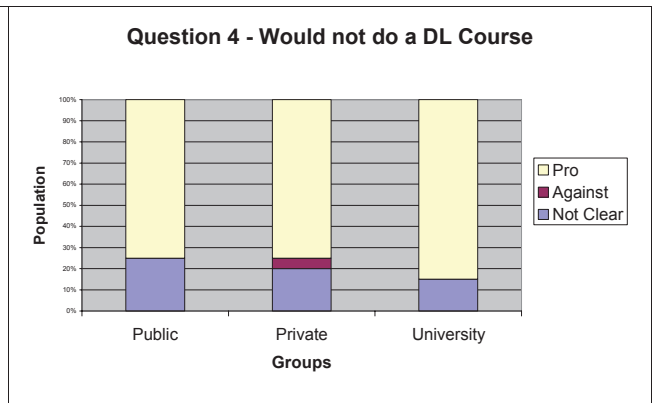
Graph 6

The students who would attend a graduation trough WEB as the students who would not, disagree that the quality of the DL course is the same as the presential. We can also notice that this was not a relevant factor on the decision of attending or not a DL graduation, since people who do a DL course believes that the quality in not the same from a presential course. .

Question 4: On DL communication between the teacher and the student is not immediate, the answers are slower and this delay breaks the student rhythms.



Graph 7

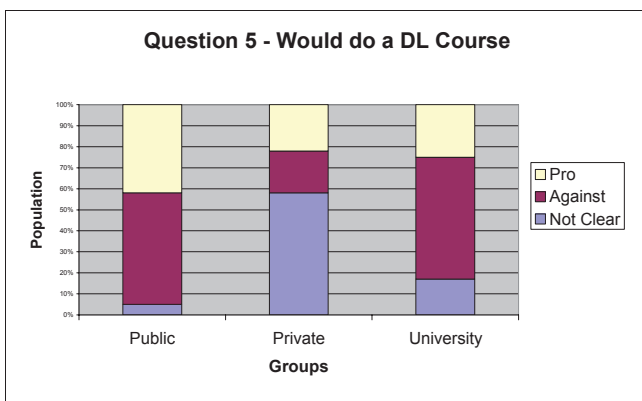


Graph 8

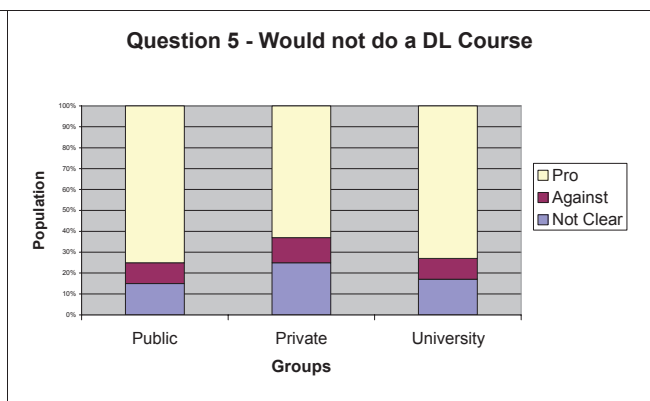
The students that would attend and the students that would not, understood that the lack of immediate communications between teacher and student is a factor prejudicial the process.

This conception shows the need of building ways of granting the communication between teacher and student. In the TelEduc case the presence of communications tools have the objective of increase communications between student and teacher.

Question 5: DL does not promote personal contact with the teacher. This aspect creates desmotivation and leavings.



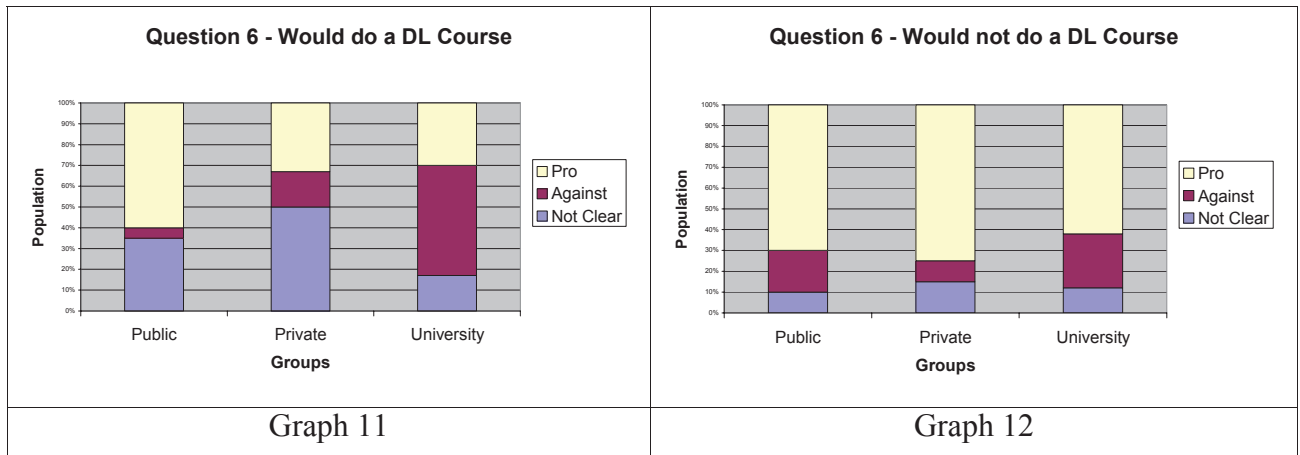
Graph 9



Graph 10

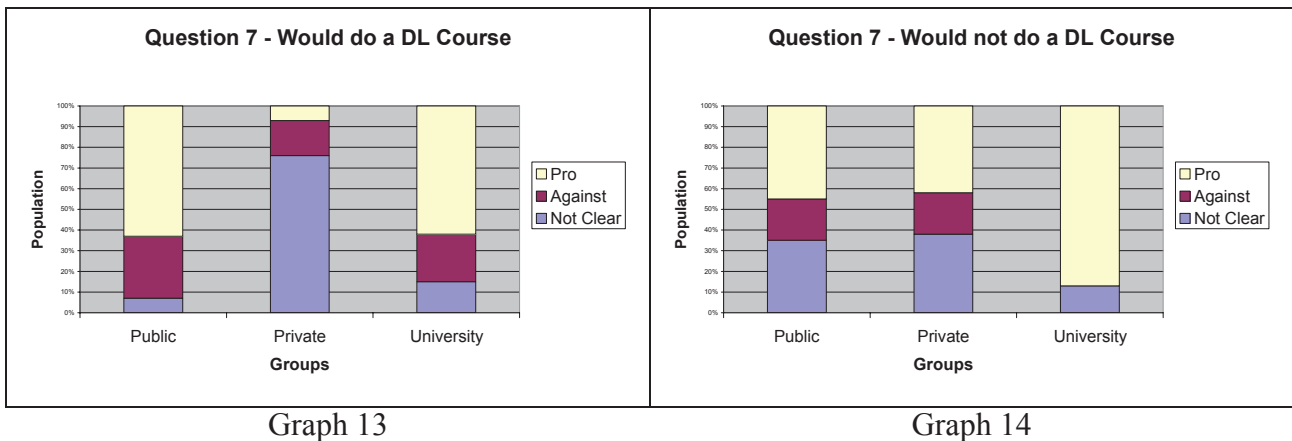
Those who would not attend a DL graduation realized that the lack of contact with the teacher is a factor of desmotivation and course desistance, but those who would attend did not agree with this statement. One can suppose that students that feel the need of a contact with the teacher would not attend a DL course. This is a greatly determinant factor.

Question 6: Full time working students do not have motivation to study alone. They need presental classes to motivate them.



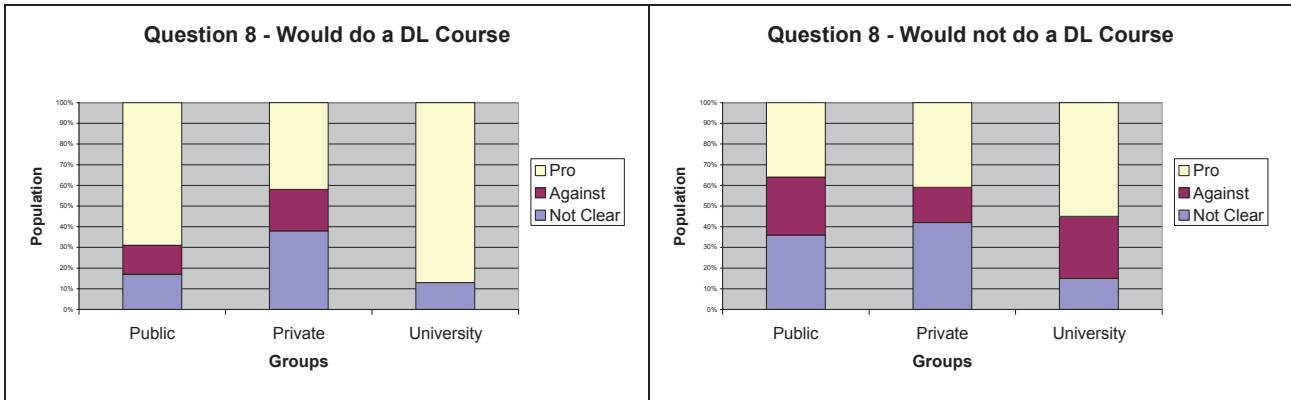
Students that would not attend a DL graduation agree that full time working students need the presence of the teacher to motivate them, as those who would attend a DL course and are from a public medium school. The private school originated students were indecisive, and the ones from the superior course did not agree that the working student does not have motivation to study, needing the presence of the teacher as motivation factor.

Question 7: Attending some disciplines trough DL and others on presential is the most adequate manner of playing DL.



Students from public medium grade and superior that would attend considered semi-presential form adequate, observing that private school medium grade students have shown themselves indecisive. Data indicates that the subject study groups agree with the offer of a semi-presential graduation course.

Question 8: On DL the student can be better attended because the teacher supervises the student in particular basis, considering the learning level in which the student is.

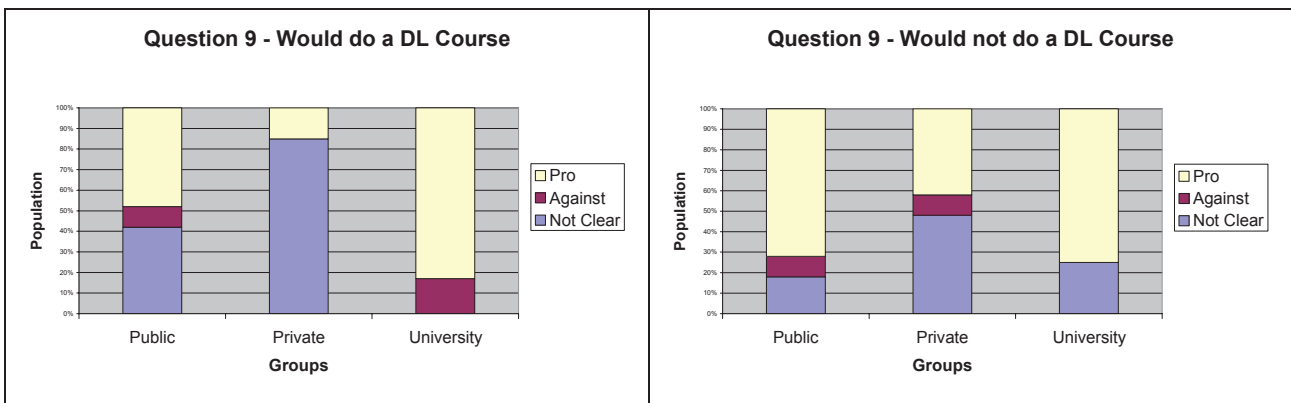


Graph 15

Graph 16

Students that would attend a WEB based DL graduation course agree that students are more efficiently supervised in DL. Those who would not attend disagree from the fact that the teacher supervises better the DL student.

Question 9: DL is a way of studying that allows self-learning, mediated by systematic organized didactics courses, used in a stand alone basis or combined, and advertised by general media.



Graph 17

Graph 18

Among those who would attend a DL graduation, the superior grade students showed to know what DL is, the private school students showed to be indecisive and the public school students showed to have not a conception on DL. Those who would not attend a DL course have agreed with the presented DL conception.

Trough continuing result analyses, when confronting closed questions with open ones one could observe that although 54,4% of answerers had said that they would attend a DL graduation, obtained results on open questions showed that 28 answerers on public medium school that said that they would attend a DL course, 06 says that they would attend a DL graduation in the absence of another option, 05 said that only if it was free of

fees, 02 depending on the course and 03 said that they would rather attend a presential course, and that leads us to the conclusion that the population subject of study would not attend a graduation DL course, and their first choice would be a presential course.

From the results of the open questions other variables has emerged, as the possibility of changing the decision on attending a DL graduation, such as access difficulties and when the desired course is not being offered in the place where the students live.

The authors of this research verified that the possibility of the student work and attend a university without leaving his home, and the opportunity of manage his own study time schedule, are meaningful, and may be responsible for the option of attending a DL course based on WEB, although the final results lead the authors to conclude that the public do not have the attitude toward the realization of a DL course and would consider a semi-presential better alternative form of DL.

Graduation students between 18 and 25 years old disagree that those who work don't have motivation to study and agreed that semi-presential form of study is the best way to use DL. They approved the experience with TelEduc environment as a support tool to presential study, and commented about the fact that the environment allowed the achievement of communications with the teacher and with their mates, although there is still the need of improve visual contact as a way to minimize the absence of human contact and enabling better ideas interchange. They consider Internet as an opportunity to innovate in the educational process.

4. CONCLUSION

Facing the results that medium grade students, with ages varying from 15 to 22 years old, would not attend a DL graduation course, we may say that we have a big challenge toward us, that is, to lead the community to understand that in the knowledge era there are other means of learning.

According to NUNES (2001), universities should, as citizenship and more qualified professional staff formation centers, prepare its students to changing, leading them to be able to understand and to learn and to critically decode global information, in a way that they will not be under a great wall of generated information, recognizing the presence and influence of the computer in the day to day of the common people and mainly to be scents to the fact that knowledge acquisition will not have an exclusive place in school.

Results show that, among the object of study groups, the social representation of DL is associated to graduation courses access opportunity, and to low quality learning. It is clear that that in the group of those who would not attend a DL graduation that the physical presence of the teacher is an important factor in the process of teaching and learning, specially related to motivation, ant that this is totally irrelevant to those who would attend a DL graduation.

In the face of this reality one can suppose that students' concepts are anchored in the traditional school model, where learning occur trough magisterial classrooms, where the teacher performs the knowledge transfer role and the students the receptor role.

Considering both the graduation students' answerers and the medium grade students approve the semi-presential model, those who will be able to change the social representation of DL will take the leadership.

According to MOSCOVICI² (2003:46), individuals can choose one of the paradigms that remain in their memories to understand social facts. Those paradigms are acquired by means of social interaction that grants behavior elaborations, communications among individuals in daily adaptation. Social representation is, then, a set of concepts, prepositions, explanations with origins in the daily life, in the course of interpersonal communications. They can be compared to myths, to the traditional societies believes, and they may be understand in contemporary vision of common sense.

From this vision we can say that, trough history, individuals have build social representations about DL, trough human interactions, determining the way they perceive DL today, because no mind is free from past conditionants. Individuals see only what their representations allows them seeing, remaining not aware of this process.

So, changing pre-existing conceptions about DL is a primal condition to obtain an agreement position toward DL. In order to Brazil may be inserted on world concert performed by knowledge era, educational managers should adopt more adequate positions if front of technological innovations, using marketing as an instrument to help them on the transition of work world serving school to knowledge world inserted school.

Success on implementation of a 20% total hours of graduation courses trough DL will depend of a planning of implementation based on student identification, his needs and pre-concepts, of the teacher who will work with semi-presential learning, medias that will be used, material and activities to be realized, in order to build (destruct) the (mis) representation that DL is low quality education.

5. REFERENCES AND CITATIONS

MOSCOVICI, Serge. **Representações Sociais investigação em psicologia social**. Petrópolis, RJ: Vozes,2003.

NÓVOA, António (coord). **As organizações escolares em análise**. Lisboa, Portugal: Editora Publicações Dom Quixote, 1999.

NUNES, I.B.**Inovação na Educação**. Disponível em: <http://intelcto.net/ead/inovacoes>.

Acesso em 08 de outubro de 2004.

NUNES, Lina Cardoso e NASCIMENTOS, Nilton. Cultura da paz, tecnologias comunicacionais:desafios para a formação de um cidadão criticamente ativo. In: Tecnologia Educacional. Revista Brasileira de tecnologia educacional. Ano XXIX- número 152/153.ISSN 0102.5503. Ano XIX Janeiro a julho de 2001.

O'BRIEN, James A. **Sistemas de Informação e as decisões gerenciais na era da Internet**. 2.ed. São Paulo: Saraiva, 2004.

² Social psychologist, author of the Theory of the Social Representations

OEIRAS, Janne Yukiko Yoshikawa, OIEIRAS, Janne Yukiko Yoshikawa . **Design de ambientes para EaD: (re)significações do usuário**, In: Anais do IV Workshop sobre Fatores Humanos em Sistemas Computacionais, Florianópolis: UFSC, SBC, 2001. p. 84-95. Disponível em : <http://teleduc.nied.unicamp.br/teleduc/>. Acesso em 06 de setembro de 2006.

OIEIRAS, Janne Yukiko Yoshikawa , FREIRE, Fernanda Maria Pereira, ROMANI, Luciana Alvim. **Contribuições de conceitos de comunicação mediada por computadores e visualização da informação para o desenvolvimento de ambiente de aprendizagem colaborativa**. In: Anais do III Workshop sobre Fatores Humanos em Sistemas Computacionais, 18 a 20 de outubro de 2000, Gramado -RS. Disponível em : <http://teleduc.nied.unicamp.br/teleduc/>. Acesso em 06 de setembro de 2006.

POTTER,R. **Administração da Tecnologia da Informação teoria e prática**. Rio de Janeiro, Campus, 2003.

REIS, Ana Maria Viegas. **Ensino a distância...megatendência atual. Abolindo preconceitos**. São Paulo: Editora Imobiliária,1996.

ROCHA, Heloisa Vieira et al. **O ambiente TeEducat para educação a distância baseada na web: Princípios, funcionalidades e perspectivas de desenvolvimento**. In: MORAES, M. C. (Org.) **Educação a distância: Fundamentos e práticas**. Campinas, SP: UNICAMP/NIED, 2002, cap. 11, p. 197-212. Disponível em : <http://teleduc.nied.unicamp.br/teleduc/>. Acesso em 06 de setembro de 2006.

ROMANI, Luciana Alvim Santos et al. **Ambientes para educação a distância baseados na WEB: onde estão as pessoas?**. Disponível em : <http://teleduc.nied.unicamp.br/teleduc/>. Acesso em 06 de setembro de 2006

SILVA, Marco. Sala de aula interativa. Rio de Janeiro: Quartet, 2000.