

Information Technology and Communication @ UFES

Finardi, K.¹, Teixeira, D.

¹ UFES/Department of Languages and Education, Post-Graduation Program of Linguistics (PPGEL) and Post Graduation Program of Education (PPGE). ABEHTE.

² UFES/Department of Languages and Education. ABEHTE.

Abstract— The objective of this paper is to describe an action performed in conjunction with UAB / CAPES / UFES through the Center for Distance Education @ Ne-ad UFES characterized as an ongoing continuing education project for the use of blended learning methodologies and ICTs in the teaching of attendance courses at tertiary level. The study describes the first stage of the distance learning course which lasted 06 months and was divided into five modules, namely: 1) Setting of Moodle and Web conferencing; 2) resources mediation in online education, 3) integration of media in education I; 4) Integration of media in education II and 5) Foundations in Distance Education. A total of 176 students distributed between 119 technical and administrative staff and 57 professors took the course provided by UFES. This paper gives a brief description of the course reporting preliminary results of the use of information technology and communication at UFES. The analysis was based on quantitative data with number of hits and activities performed by professors who took the course and qualitative data from a questionnaire answered by four professors in the end of the course. Study results suggest that the use of technology in university courses is still scarce and must be incorporated into new teaching methodologies.

Index Terms— Information Technology and Communication; Teacher Continuing Education; Blended Learning

I. INTRODUCTION

Information and Communication Technologies (hereafter ICTs) are present in most public schools in Brazil. Teachers, students and educational agents use ICTs everyday and are now trying to incorporate these tools in educational contexts so as to improve the quality and relevance of educational experiences in the era of cyber culture.

Formal educational spaces have become repositories of new practices which build, adapt and change languages, interactions, contexts and roles in education. These changes often bring about tension between traditional models of education and education models that are more aligned with the information era we live in.

Finardi, Prebianca and Momm (2013) claim that internet represents access to information and social inclusion in the globalized world yet not all teachers reflect about their role in this new society and often resist changes in their traditional practices so as to incorporate internet and

ICTs in their teaching practices, making learning experiences more relevant and shared.

A study on ICTs in Education in Brazil, published in 2010 by the Internet Management Committee (IMC)¹ revealed that most public schools have television, DVD and VHS player and printer. The gap in the regional distribution of technological infrastructure can be observed in the number of phone landlines: 81% of schools have phone landlines in Brazil whereas 73% have in the North and North-Western regions and only 55% have phone landlines in the Northeast region. Digital cameras and video recorders are present in 78% and 42% of schools, respectively. Most schools have an average of 23 computers whereas this number drops to 19 in the Northeast, especially when compared to the 27 in the South.

In another study on the relationship between teachers and ICTs from the Information and Communication Center of Technology² in 2011, we have the following numbers: 94% of teachers have a PC; 98% used internet in the last 3 months; 89% have internet home access and use it at least once a week. Teachers reported having little or no difficulty in performing the following tasks: copying and moving files (65%); using text editors (78%); using presentation editors (78%); using spreadsheets (26%); using multimedia (42%); internet search (87%); e-mails (83%); sending instant messages (70%); participating in discussion forums (47%); participating in social sites (60%); using blogs and updating internet pages (25%); posting films and videos in the internet (32%); using internet for making phone calls (22%); downloading and installing programs (35%); online shopping (50%); distance learning (47%).

According to the numbers shown here it is possible to say that schools are equipped with ICT tools and equipment though, as this paper suggests, the problem regarding the link between ICTs and social capital is not in terms of the simple access to technologies but rather how this access has been appropriated by teachers to produce social capital (WARSCHAUER, 2003).

Warschauer (2003) describes two types of access to technology (ICTs) that may lead to the construction or appropriation of social capital. According to the author,

¹ Disponível em www.cgi.br

² Fonte: <https://cetic.br/educacao/2011>, acessado em 10 de março de 2013.

the first type of access is limited to the guarantee to access ICT tools and machines (such as the One Laptop per Child Project). The second type of access is ampler and aims at guaranteeing the use of these ICTs so as to generate or appropriate social capital. Warschauer (2003) claims that the link between the information society and the transformation of social capital lies in the ample access to and critical use of ICTs.

Indeed this study was partially motivated by the observation that it is necessary to guarantee ample access to ICTs in all levels of education and this access goes through teacher education. Valente (2003), in reference to Ackermann (1990) warns us that knowing something does not mean adapting general knowledge to specific situations but rather the construction of another knowledge (p.23).

Regarding the use of ICTs by tertiary teachers the study aims at describing a teacher continuing education course offered online for the use of ICTs in regular classes at a Federal University in Brazil (UFES). The analysis of the course aims at verifying the number of tertiary teachers who took the course, how many modules they participated in and how did the course impact their teaching practice in terms of the use of ICTs in regular classes. With that aim the study describes the course before proceeding to the data analysis.

1- Contextualizing the course

The extension course “Continuing education for the use of ICTs in regular classes at UFES” was proposed after the observation made in 2010 that out of the 1.246 teachers and 2.245 technical staff at UFES then only 30% used ICTs systematically in regular classes and only 3% of them used Virtual Learning Platforms.

Given the little use of ICTs at UFES the course was proposed so as to help the understanding of new teaching practices marked by the transformation of teacher roles and the reconfiguration of information transmission and processing (CERISIER, 2008; VALENTE, 2003; MORAES, 2008).

The course was then proposed using the Moodle platform for distances courses and the syllabus included the following modules: a) Getting to know Moodle and Web Conference tools; b) Mediation tools for distance learning; c) Media integration in Education I; d) Media integration in Education II; e) Distance Education. A total of 176 students took the course, 57 were teachers and 119 were technical staff at UFES. The course aimed at: sharing knowledge concerning the use of new ICTs in the educational contexts at UFES; producing and publishing contents using ICTs; and motivating the use of ICTs in educational contexts. Eight tutors participated in the course after taking a 40 hour training course in the Moodle.

The Moodle platform was selected for the following reasons:

- The possibility of creation and management of study groups;
- The creation of forums;
- Users profile and groups;
- The use of tools such as Chat, Forum and virtual libraries;
- The possibilities of users interaction.

Methodology

The study analyzes quantitative data from the number of teachers who took the course and the number of hits per teacher in the modules of the course. The study also analyzes qualitative data from questionnaires and interviews with four teachers who finished the course. The quantitative analysis aims at answering the question of how many teachers took the course and participated actively in the course and discussion forums and the qualitative analysis aims at verifying teachers’ perception of the course and their practice after the course.

Quantitative analysis

A total of 200 vacancies were offered in the course but only 57 teachers registered. The other 119 vacancies were taken by technical staff at UFES. The number of teachers enrolled in the course shows that either teachers were not motivated to take the course (which was free of charge) or they felt they did not need to learn how to use new ICTs (which was not the case according to the statistics of ICTs use at UFES observed prior to offering the course). All the 57 teachers finished the course but not all of them participated actively in the discussion forums.

Qualitative analysis

A questionnaire with 27 questions was sent by email to the 57 teachers who participated in the course. Only four teachers answered the questionnaire. The analysis in this section will be about the answers given by these four teachers.

The questionnaire asked how well teachers could do certain activities and allowed four types of answers: 1) the teacher felt incapable, 2) could do with help, 3) could do independently or 4) could do as a specialist, even helping others.

Overall the analysis of the questionnaire shows that the teachers who took the course and answered the questionnaire feel more capable, after taking the course, to use ICTs in educational contexts.

Conclusion

The study aimed at describing a continuing education course for the use of ICTs in educational contexts at tertiary level. Preliminary results of the study suggest that

teachers are not actively engaged with the use of ICTs in educational contexts and though they have no problem to access ICTs in formal educational settings, their use of ICTs is still limited (WARSCHAUER, 2003).

REFERENCES

ASSMANN, H. **Metáforas novas para reencantar a educação**: epistemologia e didática. 3 ed. Piracicaba: UNIMEP, 2001

ASMANN, Hugo. **Reencantar a educação**. Rio de Janeiro: Ed. Vozes, 1998.

BRUNNER, J.J. Educação no encontro com as novas tecnologias. In: TEDESCO, J. C. (Org.) **Educação e Novas Tecnologias**: esperança ou incerteza? . São Paulo: Cortez; Buenos Aires: Instituto Internacional de Planejamento de La Educacion; Brasília: UNESCO, 2004.

BELLONI, M. L. **O que é mídia-educação**. Campinas, SP: Autores Associados, 2001.

BAUMAN, Z. **O mal-estar da pós-modernidade**. Rio de Janeiro: Jorge Zahar Ed., 1998

BAUMAN, Z. **Modernidade líquida**. Rio de Janeiro: Jorge Zahar Ed., 2001 CANCLINI, N. G. **Diferentes, desiguais e desconectados**. 3 ed. Rio de Janeiro: Editora UFRJ, 2009.

CERISIER, J-F. **Culture numérique versus culture scolaire**. Revue de l'AFAE, n°117, p.11-23, 2008.

CAMPOS, Fernanda; SANTORO, Flávia; BORGES, Marcos; SANTOS, Neide. **Cooperação e aprendizagem on-line**. Rio de Janeiro: DP&A, 2003.

DEMO, P. **Conhecimento e aprendizagem na nova mídia**. Brasília: Editora Plano, 2001.

DEVAUCHELLE, B., **Comment le numérique transforme les lieux de savoirs**. FYP Éditions, 2012.

FINARDI, Kyria; PREBIANCA, Gicle; MOMM, Chrisiane. **Technology in Education: The Case of Internet and English as Inclusion Languages**. Artigo aceito para publicação na Revista Cadernos do IL, maio de 2013, no prelo.

FRANCO, Sérgio Roberto. K. F. (Org.). **Informática na educação**: estudos interdisciplinares. Porto Alegre: Editora da UFRGS, 2004

GOMES, L. F. **Hipertexto no cotidiano escolar**. São Paulo: Cortez, 2011

LANDOW, George P. **Hypertext 2.0**: The Convergence of Contemporary Critical Theory and Technology (Parallax - Re-Visions of Culture and Society) Johns Hopkins University Press, 1997. 2ª edição.

LÉVY, P. **As tecnologias da inteligência**: o futuro do pensamento na era da informática. São Paulo: Editora 34, 1993.

LÉVY, P. **Cibercultura**. São Paulo: Editora 34, 1993.

LÉVY, P. **O que é o virtual?** São Paulo: Editora 34, 1996.

MAGDALENA, Beatriz; COSTA, Iris E. **Internet em sala de aula**: com a palavra, os professores. Porto Alegre: Artmed, 2002.

MORAES, M. C. Educação a distância e a resignificação dos paradigmas educacionais: fundamentos teóricos e epistemológicos. IN: MORAES, M. C., PESCE, L., BRUNO, A. R. (Orgs.). **Pesquisando fundamentos para novas práticas na educação online**. São Paulo: RG Editores, 2008.

MORIN, E. **Introdução ao pensamento complexo**. 3 ed. Porto Alegre: Sulinas, 2007.

MORIN, E. **A religião dos saberes**: o desafio do século XXI. 3 ed. Rio de Janeiro: Bertrand Brasil, 2002.

MORIN, E. **Ciência com consciência**. 10ª ed. Rio de Janeiro: Bertrand Brasil, 2007.

MORIN, E. **Os sete saberes necessários à educação do futuro**. 6 ed. São Paulo: Cortez; Brasília, DF: UNESCO, 2002.

MORIN, E. **A cabeça bem-feita**: repensar a reforma, reformar o pensamento. 8 ed. Rio de Janeiro: Bertrand Brasil, 2003.

OLIVEIRA, Ramon de. **Informática Educativa**: dos planos e discursos à sala de aula. Campinas: Papirus, 1997.

PERAYA, D., **Un regard critique sur les concepts de médiatisation et médiation. Nouvelles pratiques, nouvelle modélisation**, 2011, disponível em http://w3.u-grenoble3.fr/les_enjeux/2008-supplement/Peraya/index.php, acessado em 13 de março de 2013.

PEREIRA, Ana Paula M. S. MOURA, Mirtes Zoé da Silva. A produção discursiva nas salas de bate-papo: formas e características processuais. In: FREITAS, Maria Teresa de Assunção. COSTA, Sérgio Roberto. **Leitura e escrita de adolescentes na internet e na escola**. Belo Horizonte: Autêntica, 2005.

PRENSKY, M., **Digital natives, digital immigrants**, *On the Horizon*, 2001.

RAMAL, A. C. **Ler e escrever na cultura digital.**

Disponível em <http://www.revistaconecta.com/> -
acessado em julho/2010.

RÜDIGER, F. **As teorias da cibercultura:** perspectivas,
questões e autores. Porto Alegre: Sulina, 2011.

SCHLUNZER JÚNIOR, Klaus. (Org.). **Inclusão
digital:** tecendo redes afetivas e cognitivas. Rio de
Janeiro: Editora DP&A, 2005.

SILVA, M. **Interatividade:** uma mudança fundamental
do esquema clássico da comunicação. Disponível em
http://www.saladeaulainterativa.pro.br/texto_0009.htm .
Acessado em janeiro de 2011.

SILVEIRA, S. A., SANTANA, B. **Conceito de cultura
digital.** Disponível em [http://culturadigital.br/o-
programa/conceito-de-cultura-digital](http://culturadigital.br/o-programa/conceito-de-cultura-digital). Acessado em 15 de
março de 2013.

VALENTE, A. C. **A linguagem nossa de cada dia.**
Petrópolis: Vozes, 1997.

VALENTE, J. A. Curso de especialização em
desenvolvimento de projetos pedagógicos com o uso de

novas tecnologias: descrição e fundamentos. In:

VALENTE, J. A.; PRADO, M. E. B. B.; ALMEIDA, M.
E. B. (Orgs.) **Educação a distância via internet.** São
Paulo: Avercamp, 2003.

VIGOTSKY, L. S. **A formação social da mente:** o
desenvolvimento dos processos psicológicos superiores.
2ª ed. São Paulo: Martins Fontes, 1988.

WARSCHAUER, Mark . Social capital and access.
Universal Access in the Information Society, 2(4). 2003.

XAVIER, A.C. **A era do hipertexto:** linguagem &
tecnologia. Recife: Ed. Universitária da UFPE, 2009