

Vol. 4, n. 5, agosto. 2018

DOI: http://dx.doi.org/10.20873/uft.2447-4266.2018v4n5p882

# FOR THE LEARNING MANAGEMENT

PARA A GESTÃO DA APRENDIZAGEM

PARA LA GESTIÓN DEL APRENDIZAJE

# José Lauro Martins<sup>1, 2</sup>

## **ABSTRACT**

In this work we seek to structure an epistemic guideline for the concept of learning management and establish the counterpoint with the traditional structure of educational thinking referenced by the teaching management. We did not pretend to historicize the concepts, what we propose is a discussion contextualized in the contemporary critique of traditional models of teaching. It is a bibliographic essay study that deals with the management of learning as a possible pedagogical proposal insofar as each learner can be subject in learning and classificatory linearity gives rise to learning collaboration networks. It is understood that the learning oriented by the management of the learning needs to be delimited by the contextualization of the learning; pedagogical mediation and integrative evaluation. Thus, it is necessary to appropriate autonomy to connect the still unknown to the already known, going from the superficiality of information to the depth of knowledge. We need to move forward and build curricula capable of apprehending the dynamics of learning, for this we must

\_ . . .

<sup>&</sup>lt;sup>1</sup> Doutorado Ciências da Educação pela Universidade do Minho (Portugal), Mestre em Educação pela Universidad Autonoma de Asunción (Paraguai), Licenciado em Filosofia pela Universidade Federal do Paraná. Professor Adjunto na Universidade Federal de Tocantins – Brasil, Coordenador do Programa de mestrado em Ensino em Ciências e Saúde e Membro do Opaje. Email. <u>ilauro@uft.edu.br</u>.

<sup>&</sup>lt;sup>2</sup> Endereço de contato do autor (por correio): Universidade Federal de Tocantins. Programa de mestrado em Ensino em Ciências e Saúde. Avenida NS 15 ALCNO 14,109 Norte, 77001-090, Bloco Bala I Sala 04, CEP: 77001-090 | Palmas/TO, Brasil.



Vol. 4, n. 5, agosto. 2018

DOI: http://dx.doi.org/10.20873/uft.2447-4266.2018v4n5p882

overcome organizational models based on principles of teaching management in which administrative time overlaps learning time.

**KEYWORDS:** Learning management, teaching management, autonomy

## **RESUMO**

Neste trabalho procuramos estruturar uma diretriz epistêmica para o conceito de gestão da aprendizagem e estabelecer o contraponto com estrutura tradicional do pensamento educativo referenciada pela gestão do ensino. Não tivemos a pretensão de historicisar os conceitos, o que propomo-nos é uma discussão contextualizada na crítica contemporânea aos modelos tradicionais de ensino. Trata-se de um estudo ensaístico bibliográfico que aborda a gestão da aprendizagem como uma proposta pedagógica possível na medida em que cada aprendente possa a ser sujeito na aprendência e a linearidade classificatória dá lugar as redes de colaboração da aprendizagem. Entende-se que a aprendência gestão da aprendizagem precisa ser delimitada orientada pela contextualização da aprendência; a mediação pedagógica e a avaliação integradora. Assim, é necessário apropriar-se da autonomia para ligar o ainda desconhecido ao já conhecido, indo da superficialidade das informações à profundidade dos conhecimentos. Precisamos avançar e construirmos currículos capaz de apreender as dinâmicas das aprendizagens, para isso é preciso superar os modelos de organização fundados em princípios da gestão do ensino em que o tempo administrativo sobrepõe ao tempo de aprendizagem.

**PALAVRAS-CHAVE:** Gestão da aprendizagem, gestão do ensino, autonomia, aprendência.

### **RESUMEN**

En este trabajo buscamos estructurar una directriz epistémica para el concepto de gestión del aprendizaje y establecer el contrapunto con estructura tradicional del pensamiento educativo referenciada por la gestión de la enseñanza. No tuvimos la pretensión de historicizar los conceptos, lo que proponemos es una discusión contextualizada en la crítica contemporánea a los modelos tradicionales de enseñanza. Se trata de un estudio ensayístico bibliográfico que aborda la gestión



del aprendizaje como una propuesta pedagógica posible en la medida en que cada alumno pueda estar sujeto en la enseñanza y la linealidad clasificatoria da lugar a las redes de colaboración del aprendizaje. Se entiende que la enseñanza orientada por la gestión del aprendizaje necesita ser delimitada por la contextualización de la enseñanza; la mediación pedagógica y la evaluación integradora. Así, es necesario apropiarse de la autonomía para ligar lo aún desconocido al ya conocido, yendo de la superficialidad de las informaciones a la profundidad de los conocimientos. Necesitamos avanzar y construir currículos capaces de aprehender las dinámicas de los aprendizajes, para ello hay que superar los modelos de organización fundados en principios de la gestión de la enseñanza en que el tiempo administrativo superpone al tiempo de aprendizaje.

PALABRAS CLAVE: Gestión del aprendizaje, gestión de la enseñanza, autonomía.

Recebido em: 16.03.2017. Aceito em: 19.06.2018. Publicado em: 01.08.2018.



Não se ensina pássaro preso a voar

#### Introduction

We live in a time when the present/future interface is increasingly diluted; the future becomes more and more present and the link between the present and the past becomes no longer of the same importance as half a century ago. The availability of digital technologies hastens society, which in turn requires an education so that young people are able to think and live the extremely rapid social transformations.

There is no need to be a scientist to understand that, in general, academical practices are outdated and we need to learn that education is directed toward the future of learning subjects (MORAES, PESCE & BRUNO, 2008). Increasingly, young people are charged with initiative and creativity to reinvent the future, but how can we meet that demand with the rigidity that education systems impose on the school curriculum? Just as the teacher no longer needs to be a 'content distribution center', simply because there are many more efficient devices for this purpose. Teaching can be practiced in a learning community, whose information and knowledge production are distributed in a network accessed through the Internet. The network can always have more knowledge than an individual, what we need is to participate in the networks that share and promote the production of knowledge.

Finding out how to be an educator who meets the demand for training for the young people of this turn of the century has become a major challenge. For this, teaching must assume that learning is not a reproduction of what has been taught to it, but rather a process in which the learner (ASSMANN, 2005) appropriates their autonomy through the construction of knowledge, is more likely to think different and trust your conclusions. This would break with the



Vol. 4, n. 5, agosto. 2018

DOI: http://dx.doi.org/10.20873/uft.2447-4266.2018v4n5p882

tradition of teachers having as pedagogical references their former teachers, because rarely the past generation of teachers serves as a model today due to the great contemporary social and technological transformation.

# The sense of autonomy

Michel Foucault (1979) wrote that classically the power was considered as an emanating from a source to the extremities. Thus, power may be a concession from someone with more power who grants some power to another on a scale below. This concession of power has a limit so that it does not lose its efficiency; that is, the one who gives power could never grant all power conferred upon him. For a form of empowerment is to grant "autonomy," however limited, so that there is a vertical circulation of the power emanating from the source to the various energizers through actions that demonstrate the power of some. Similarly, in granting autonomy to some, contradictorily, but it is necessary to maintain their "obedience" as the source of power.

However, for the same author, power is something that circulates and is not located anywhere, only works on the network because the power goes through them and feeds in chains. His concern was with the exercise of power, that is, the ends of power (micropower) that gives support to a central power. If we look at the sense of power in traditional school we see the teacher as a representative of the power granted. However, its authority is not strictly related to its institutionally recognized scientific and pedagogical authority. The authority of the teacher is related to the classical power structure and authorizes the disapproval/approval of the learners as a consequence of that power that was granted to them.

The authority of the teacher in traditional schools that until a few decades was founded in privileged access to academic information (at all levels of formal education) and the class was an important source of information. The school was



Vol. 4, n. 5, agosto. 2018

DOI: http://dx.doi.org/10.20873/uft.2447-4266.2018v4n5p882

the social center of knowledge and teaching, and the teacher was the main agent. Thus, in addition to the constituted authority, the teacher had a didactic autonomy justified by the knowledge he held.

The advent of digital technologies has diversified and access to information sources and eases the communication between subjects and sources. So that the power based on the 'possession' of information gets empty because of web technologies become strategic unrestricted access to information through digital networks. The academic libraries are more and more no longer a place for consulting printed books for a privileged place for research oriented in information networks, scientific periodicals, databases or even digital books. In this way, teacher autonomy exercised as authority over content is also diluted as learners have access to other sources and ways of learning.

It could be said that there is a disempowerment of the teacher in the traditional sense. Then the authority of the teacher fades away as the autonomy of learners emerges amid free access to sources of information. However, to the same extent, it develops new forms of teaching and re-signification of autonomy. It is not restricted to the teacher, but it is appropriated by all agents of the process through the management of network learning (OKADA, 2011 a). In this way the teacher's authority becomes related to his / her ability to exert the dynamization of the network and the learner also appropriate the autonomy exercised in the network of learning to the extent that it has free access to the sources of information. Unlike authority that cannot be broadly distributed so as not to lose its effectiveness, autonomy must be permanently built and proportionately effective appropriation by each learning subject.

In this sense we understand that autonomy should be considered as a contribution of the educational process that leads learners to develop the capacity to intervene in a conscious way in reality. The etymological meaning of the term is



preserved in Greek origin - that which establishes its own laws. Therefore, in

principle, autonomy in the management of learning cannot be considered as an

institutional concession, of teachers or any guide in the learning process.

In order to understand the meaning of autonomy, we have affiliated Paulo Freire who identifies the role of the educator in the following way: "assuming himself as a subject, also of the production of knowledge, is convinced definitively that teaching is not transferring knowledge, but creating possibilities for its production or its construction" (FREIRE, P., 1996, p.12).

In other words, teaching guided by the management of learning presupposes the active participation of learners from the "invention" of the problems that will serve as study guides and the less demanding the teacher to solve them, the better the appropriation of autonomy. Thus, the sense of learning is a process of apprehending the meaning of things by the cognoscente subject and the form of his re-signification of his relationship with the world. Learning is always to perceive another part of the world and consequently is part of the transformation of the world of the learner (MARTINS, 2014).

From the point of view of learning management, we can say that the management of traditional teaching is based on the student's dependence on the teacher, in which the teaching action is prescriptive and the student has a reactive relationship, either to meet the demand instituted by the teacher or to deny it. While the management of learning based on the appropriation of autonomy, a dialogic / understanding relationship between the teacher and the learner is assumed. The teacher is the trainer and has the duty to prepare the learner to think, to be able to adapt to the different realities and transformations that the present society of "accelerated information" submits all learners (FONSECA, 1998).

If learners depended strictly on teachers' guidelines, learners must now develop the skills necessary to take a constructive role in their network learning, as



Marco Silva (2009: 95) says, "The learner is no longer reduced to look, listen, copy and render accounts. He creates, modifies, constructs, increases and thus becomes co-author." It is not a matter of betting on the individual competences to access, organize, process and use information for their social participation, but on the social development of cognitive subjects that the school has the duty to participate objectively. The focus of our discussion is the construction of the learner's autonomy in relation to his critique reading capacity and intervention in the world. Leading from the principle that the structured learning process for the construction with the autonomy owning which is present in the subject empowerment. It's our duty to at least point some potentialities for the autonomy. On the other hand, the definitions of autonomy are way diverse (PAIVA, 2005) thus that, we have characterized the appropriation of learning autonomy ion three levels (MARTINS, 2014):

- (1) Instrumental Autonomy It is the basic level for autonomy in which learners become able to use the various resources available to access information. However, it is not restricted to the ability to use the equipment either from a physical or virtual laboratory. Instrumental autonomy is the most widespread among education and technology scholars because it is a desire of teachers that learners have initiative and can access and carry out their activities without the insistence of teachers. However, even the same concepts used in an instrumental (mechanical) way in the various formative activities can only be rhetorical instruments, forgotten immediately, because in case such as this does not constitute a learning properly.
- (2) Cognitive autonomy This is the level at which new concepts come to be understood, understood and associated with the learner's corpus of knowledge. It is not just memory but learning itself. Concepts cease to be simple words that are



meaningless and become part of the spontaneous vocabulary, which enables more complex readings of society and life.

(3) Critical autonomy - This is the deepest level of learning. When new knowledge becomes available for intervention in the world. From this level there is no safe form of evaluation that can "measure" critical autonomy, considering that not even the learner knows precisely what and how much he has learned. Paulo Freire helps us to understand the following statement: "It is precisely this capacity to act, to operate, to transform reality according to the purposes proposed by man, to which is associated his capacity for reflection, which makes him a being of praxis" (FREIRE, 1979, p.88).

In short, autonomy must be a guiding principle of learning that must be instituted in all instances of the pedagogical process. It is not expected that learners are autonomous, autonomy should be part of the management of learning as a rhizomatic axis that constitutes the pedagogical proposal. As Freire (1996, 67) says, "No one is autonomous first and then decides. Autonomy is becoming the experience of several, many decisions, which are being taken.

"At last, we agree with Francine Dubreucq (2010, 33) that" autonomy does not arise from the absence of directivity, but from the awareness of the rights and duties of an active member of social life. " of learning is not conditioned by the absence of conflict or any other present difficulty, but rather how we participate and involve learners in solving the challenges they face.

## The construction of meanings

Some concepts are fundamental to understand the management of learning. We begin with the concept of meaningful learning that David Ausubel based on a relatively simple postulate presented as an epigraph in the book Educational Psychology: "If I had to reduce all educational psychology into a



Vol. 4, n. 5, agosto. 2018

DOI: http://dx.doi.org/10.20873/uft.2447-4266.2018v4n5p882

single principle, I would say: The single most important factor influencing learning is what the learner already knows. Find out what he knows and base his teachings on it "(AUSUBEL, NOVAK & HANESIAN, 1980).

The meaningful learning is characterized in the formative process when the new information to be incorporated into the cognitive structure of the learner links the unit with its own meaning and requires the learner to make a substantive integration (POZO, 2006). What makes learning management challenging and motivating is respect for the learner, especially what the cognoscente subject already knows because he understands that this cultural base directly influences the time of learning and derived knowledge.

David Ausubel (2002) considers that meaningful learning does not depend only on educators and content. It is not a process in which the learner remains passive, but his 'attitude', that is, the interest in the new learning is fundamental. We consider it appropriate to understand learning management what Ausubel (2002, p.22) called "potentially meaningful material" for learners, since appropriating the concepts enhances their autonomy to thinking, relate, decide and build their life in society. Thus, content suitable for meaningful learning is not qualified by teacher choice, but meaningful from the learner's point of view. And as Pierre Lévy (1993: 44) observed, "It is well known that different people will assign meaning, sometimes opposites, to an identical message. This is because, if on the one hand the text is the same for each one, on the other the hypertext may differ completely ". However, as the learning style and potentialities of each of the learners are known, a more meaningful and contextualized learning can be planned.



# Dialogue learning

It is not met in the readings of Paulo Freire's work a textual definition of autonomy, but he wrote long reflections on autonomy as part of the construction of freedom. We consider that Freire (1996) is the best reference to understand the appropriation of autonomy by drawing the attention of educators not to keep the learner in the "shadow" of the educator. The role of the educator in learning management is not to "fill" the learner with information about the reductionist pretext of such "knowledge" is needed, but to provide the organization of learning thinking through a dialogic relationship (FREIRE, 1975).

The dialogue that qualifies the management of learning must also be an object of teacher learning, since it is not a natural aspect but a competence for educational communication (Freire, 1975). Teaching for the purpose of building a less dependent subject requires that we overcome the attitude of "Who only speaks and never hears; who 'immobilizes' knowledge and transfers it to learners. It does not matter whether it is primary or university schools "(FREIRE, 1989, p.17). In the dynamics of traditional education, it happens by centralizing the teaching process insofar as it establishes a hierarchy that cannot be modified by learners and makes dialogue impossible (MOORE, 2002). You cannot consider a class or a course as open to dialogue when you have a very small part of opportunity where the learner can manifest. The dialogue as a pedagogical support assumes that the learner takes priority in learning.

## The learning management

Given the foundations of the concept and the paths for reflection, we have delimited the management of learning. We initially considered some important differences when characterizing learning management and management, not so much to construct a reasoning based on one concept as opposed to the other, but



Vol. 4, n. 5, agosto. 2018

DOI: http://dx.doi.org/10.20873/uft.2447-4266.2018v4n5p882

to highlight their differences. Although both relate to the educational phenomenon, this distinction helps us to clarify the confusion between learning and teaching (CANÁRIO, 2006).

In traditional teaching management the teacher is the center of the educational process, the school is a center of teaching with routines that gives security to the teaching work and the organization of the processes. There is a fundamental concern with the teaching of content linked to disciplines and described in the teaching program.

We invite the reader to bring the learner to the center of the education scene from the principle that the subject is part of the world, but the world is not part of the subject without his perceiving it. Through learning the world becomes part of the subject. The existence of the world does not depend on the existence of the subject, but every phenomenon in the world to have sense of the subject depends on some learning. Thus, it is the teaching task to help each learner in the discovery of the world.

To this educational process in which the learner is centered and the social result is the appropriation of autonomy in relation to all aspects of life we call learning management. The meaning of the concept of learning management anchors the educational discourse when we consider learning a phenomenon that happens in the cognoscente subject and the responsibility of all the social actors involved in learning (MARTINS, 2014, p.

We believe that the appropriation of the concept of learning management can contribute to significant changes in school management and teaching itself. However, so far it is not an epistemological revolution because this concept has been present in educational research for a long time, although it is often used as synonymous with teaching management.



Vol. 4, n. 5, agosto. 2018

DOI: http://dx.doi.org/10.20873/uft.2447-4266.2018v4n5p882

In order to refer educational management to learning management, it is not enough to make content aware of learners, since learning management is not restricted to repetition of information. However, access to and mastery of information as part of learning is equally important.

By considering the learner as the center of learning management and learning as a cognitive and social process, it implies significant changes in the institutional pedagogical project. For although the educational process continues with the same agents and the same instituting elements, it necessarily changes the role of the teacher in relation to the structuring of information (contents), the methodologies for the promotion of learners. In addition, it must be understood that, like society, education has become much more complex and contemporary technologies are very important for teaching work, especially the computer with Internet connection due to the numerous possibilities of pedagogical use. However, in addition to demanding epistemological changes regarding teaching and teaching, especially since it is based on adopting new methodological strategies, new attitudes in the face of new problems.

In assuming the management of learning as an epistemological reference in education, the educational process must be constituted by mediation and highlight the active role of the learner. It is also understood that the learner is the exclusive condition for learning, while teaching can be exercised by several actors and is accidentally exercised by this or that teacher. It does not mean that the needs of each learner should be met, but the focus of the educational process should be on learning and for this it is necessary to invest in active methodologies that allow to attend the different styles and times of learning. Thus, we can consider that the management of learning is the objective process of organization, whose cognitive result is learning and the social result is the appropriation of autonomy for life in society.



We understand that learning guided by the management of learning needs to be delimited by three pedagogical situations (MARTINS, 2014, p.150). These situations cannot be watertight or authoritative:

- (A) **The learning contextualization** is a condition for learning to be meaningful. Remembering that meaning is a condition for the learner and not for the teacher. However, it is the teacher, through contextualization, be it social, geographical, historical, technological or any other type for the clarification of the objectives, that facilitates / enables / enables the connection with what the learner already knows; thereby facilitating interest in information and trust in the mediator.
- (B) **The pedagogical mediation** supposes a Freirean dialogue in which the exchange is more important than the very information that transits among the dialogues (Freire, 1987; NUNES, ACCIOLY & SOUZA, 2016). In this context, the mediator has the role of leading / creating / facilitating dialogue according to a pedagogical intentionality. It is necessary to consider that there is no pedagogical dialogue without an intentionality because the role of the mediator is not just to be between, but to be together; at some point may be in the front to show the way, in another may be behind for the learner to experience autonomy. For this, it is necessary to establish a relationship of trust of the learner in himself and in the learner group.
- (C) Finally, **the integrative evaluation** of all the learning provided. In this case, it is of little concern what the educational system is going to do with the outcome of the assessment provided that it is in fact integrative and focuses on metacognitive learning. In this way, the learner will certainly feel more confident to use what has been learned to understand and / or modify the world in which he lives.



Vol. 4, n. 5, agosto. 2018

DOI: http://dx.doi.org/10.20873/uft.2447-4266.2018v4n5p882

### **Final considerations**

In defending the management of learning as an educational process in which the learner must be the center, it is not just a matter of epistemological territory in geo-learning. It is the defense that the learning must a process of solidarity and that the teaching can be exerted by diverse subjects, including by the own learners in a collaborative management of the learning. Aware that teaching for the construction of autonomy will be more complex and therefore more laborious.

We understand that there is another serious problem to mobilize any change towards learning management as a reference for education management: there is a lot of information and inquiries from all areas of knowledge about what to do with education and we seem blind in the face of so much light. But we still need to learn to question learning as a process and not as a result! Thus, we will have other references to question the teacher, the school, the system and the education.

Some conditions are indeed necessary for education referenced by learning management to be effective. The axiomatic condition is to consider that teaching has no value in itself, but learning does. From this we derive four conditions indicative of paradigm shift:

- 1<sup>st</sup>. Each leaner is the center of the process and not part of a class;
- 2<sup>nd</sup>. The school is a place of learning and not of teaching;
- 3<sup>rd</sup>. The teacher is a coauthor of the process and not a principal author;
- 4<sup>th</sup>. Autonomy in learning is a construction and not a concession of teachers.

This pedagogical proposal becomes possible insofar as each learner becomes, in fact, the subject of learning; that the classificatory linearity gives rise to the hypertext in the organization of the contents and the network of



collaboration takes the place of the hierarchy. Taking advantage of the autonomy to connect the still unknown to the already known gives meaning to information, going from the superficiality of information (data) to depth of knowledge (intelligence).

#### Referências

ASSMANN, H. **Redes digitais e metamorfose do aprender**. Petropolis-RJ: Vozes, 2005.

AUSUBEL, D. P. **Adquisicion y Retención del Conocimento:** Una Perspectiva Congnitiva. Barcelona: Paidós (Original publicada em 2000), 2002.

AUSUBEL, D. P.; NOVAK, J. D.; HANESIAN, H. **Psicologia educacional**. Rio de Janeiro: Interamericana, 1980.

CANARIO, R. **A escola tem futuro?** Das promessas as incertezas. Porto Alegre: Artmed, 2006.

DUBREUCQ, F. **Jean-Ovide Decroly**. Tradução de Carlos Alberto Vieira Coelho e Jason Ferreira Mafra. Recife: Editora Massangana, 2010.

FONSECA, V. **Aprender a aprender:** Educabilidade cognitiva. Porto Alegre: Artmed, 1998.

FOUCAULT, M. Microfísica do poder. Rio de Janeiro: Graal, 1979.

FREIRE, P. Extensão ou comunicação? Rio de Janeiro: Paz e Terra, 1975.

FREIRE, P. Educação e Mudança. 12. ed. São Paulo: Paz e Terra, 1979.

FREIRE, P. **Pedagogia do Oprimido**. 17. ed. Rio de Janeiro: Paz e Terra, 1987.

FREIRE, P. A importância do ato de ler. São Paulo: Cortez, 1989.

FREIRE, P. **Pedagogia da autonomia:** Saberes necessários à prática educativa. São Paulo: Paz e Terra, 1996.



LEVY, P. As Tecnologias da inteligência. São Paulo: Editora 34, 1993.

MARTINS, J. L. **A gestão da aprendizagem em ambiente virtual**. Universidade do Minho. Braga; Portugal. 2014. (Disponível em http://repositorium.sdum.uminho.pt/handle/1822/34067). (Tese de doutrorado).

MOORE, M. G. Teoria da Distância Transacional. **Revista Brasileira de Aprendizagem Aberta e a Distância**, São Paulo, n. Original publicado em Keegan, D. (1993) Theoretical Principles of Distance Education. London: London: Routledge. Traduzido por Wilson Azevêdo, p. 22-38. Disponível em http://goo.gl/5VXFUK, Agosto 2002.

MORAES, M. C.; PERCE, L.; BRUNO, A. R. **Pesquisando fundamentos para novas práticas na educação online**. São Paulo: RG Editores, 2008.

NUNES, A. H. D. S. R.; ACCIOLY, D. C. D. S.; SOUZA, S. M. D. O. **Comunicação e Educação:** Bases Epistemológicas Fundamentadas na Perspectiva Dialógica de Paulo Freire. XXXIX Congresso Brasileiro de Ciências da Comunicação. São Paulo.: [s.n.]. 2016. Disponível em http://portalintercom.org.br/anais/nacional2016.

OKADA, A. Colearn 2.0 - Coaprendizagem via comunidades abertas de pesquisa, práticas e recursos educacionais. **e-Curriculum**, Pontifícia Universidade Católica de São Paulo. , v. 7, n. 1, p. 1-15.Disponivel em http://www.redalyc.org/articulo.oa?id=76619165010, 2011 a.

PAIVA, V. L. M. D. O. E. Autonomia e Complexidade: uma analise de narrativas de aprendizagem. In: MAXIMINA M. FREIRE, M. H. V. A. **Lingüística Aplicada e Contemporaneidade**. Campinas e São Paulo: Pontes e ALAB, 2005. p. 135-153. Acesso em: 10 julho 2012.

POZO, J. I. **Teorias cognitivas del aprendizage**. 9. ed. Madrid: Morata, 2006.



SILVA, M. Educação presencial e online. Sugestões de interatividade na cibercultura. In: TRIVINHO, E. &. C. E. (. ). **A cibercultura e seu espelho**. São Paulo: ABCiber; Instituto Itaú Cultural, 2009.