



**CONCEPTIONS OF UNIVERSITY LECTURERS
ON PEDAGOGICAL INNOVATION**

CONCEPÇÕES DE PROFESSORES UNIVERSITÁRIOS
SOBRE INOVAÇÃO PEDAGÓGICA

CONCEPCIONES DE DOCENTES CON RESPECTO A
PRÁCTICAS PEDAGÓGICAS INNOVADORAS

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ABSTRACT: This paper presents the results of a research that aimed to understand teachers' conceptions about innovative pedagogical practices in a Higher Education Institution. The research intended to answer: 'What do teachers understand by innovative pedagogical practice in higher education?' We have used a qualitative approach in a descriptive study with 206 teachers of the Federal University of Pernambuco. Data was acquired and analysed using the technique of Discourse of the Collective Subject. According to the professors, we have in this higher education institution, an established path to pedagogical innovation, but it needs to be strengthened through discussion with everyone who participates in the teaching-learning processes, bringing continuity and a permanent opening to innovation.

KEYWORDS: Higher education. Didactic methods. Pedagogical practice.

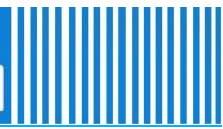
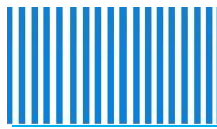
RESUMO: Este trabalho apresenta resultados de uma pesquisa que objetivou compreender as concepções de docentes sobre práticas pedagógicas inovadoras em uma instituição de ensino superior, tendo como questão norteadora: o que os docentes compreendem por prática pedagógica inovadora no ensino superior? Empregou-se um estudo descritivo, com abordagem qualitativa, realizada com 206 docentes da Universidade Federal de Pernambuco. A análise dos dados baseou-se na técnica do Discurso do Sujeito Coletivo. Observou-se que nesta instituição há um caminho traçado para inovação pedagógica no ensino superior, que precisa ser fortalecido e sempre discutido, por todos os que participam do processo de ensino e aprendizagem, trazendo continuidade e uma abertura permanente para a inovação.

PALAVRAS-CHAVE: Ensino superior. Métodos didático-pedagógicos. Prática pedagógica.

RESUMEN: Este trabajo presenta los resultados de una pesquisa que tenía el objetivo de comprender las concepciones de docentes con respecto a prácticas pedagógicas innovadoras en una institución de enseñanza superior, tuvo como cuestión norteadora: o que los docentes comprenden por prácticas pedagógicas innovadoras en enseñanza superior? Se empleó un estudio descriptivo, con abordaje cualitativo, realizada con 206 docentes de la "Universidade Federal de Pernambuco". El análisis de los datos se ha basado en técnica de "Discurso del Sujeto Colectivo". Lo que se observó fue que en la institución existe un camino que ya está marcado para la innovación pedagógica en la enseñanza superior, que necesita ser fortalecido y siempre discutido, por todos los que participan en el proceso de enseñanza y aprendizaje, creyendo en la continuidad e innovación permanente.

PALABRAS CLAVE: Enseñanza superior. Métodos didáctico-pedagógicos. Práctica pedagógica.

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INTRODUCTION

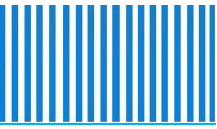
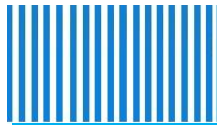
The knowledge society, related to its convergent development with ICT (information and communication technologies) settled at the 20th century, requires new ways of teaching and learning in higher education. In this context, teaching and learning processes based in traditional methods supported by the transmission of the educator knowledge, need to be rethought considering new practices, addressing the learner and his/her own development (BEHRENS, 2005; LÉVY, 2010).

In higher education, the process of restructures teaching and learning has being named, by a number of authors, as pedagogical innovation, and thought as a paradigmatic change. That is initially characterized by a conceptual rupture between conservative and emergent pedagogic models of teaching and learning (BEHRENS, 2005; MASETTO, 2012; MORAES, 2012).

In this sense, conservative pedagogic models are considered as based on transmission and memorization of information, having as main player the educator, while the learner is thought as a passive receptor of the transmitted information during the class. On the other hand, the so called emergent pedagogic models, would aiming a more horizontal and balanced teaching and learning process, allowing to both learner and educator skills development, such as: learn to learn, learn to make and learn to being (DELORS *et al.*, 1998; LEITE; ZABALZA, 2012; FREIRE, 2014).

Thus, the usage of these pedagogic models brings epistemological questions about higher education, broadening the discussion about new practices of teaching and learning, which should attend: application of innovative methods of teaching; support to participative managing between educators and learner; integration of different kinds of knowledge, such as the popular and scientific ones; joint articulation between theory and practice; stimulation and development of the protagonism and autonomy of learners and educators (BEHRENS, 2005; MASETTO, 2012; MORAES, 2012; MORIN, 2013).

This paper describes the research that was developed aiming to understand conceptions and understandings of lecturers in a higher education institution about innovative pedagogic practices. The outcomes of this research will be especially important to recognise strengths, weaknesses and requirements to better execute and disseminate innovative practices, mainly considering the high complexity of: conception, planning, operationalization, development and evaluation of pedagogic innovation in higher education. We planned to answer with this study the question: What are the conceptions and understandings of lecturers about innovative pedagogic practices in higher education?



Thus, the teachers understandings about innovative pedagogic practices, as well as the discussion made upon their narratives, can be used to the proposal of institutional educational polices to train teachers in the new methods, and also to stimulate learners in the new scenarios. Besides, its results can be used to promote institutional dialog about pedagogic innovation, in order to invigorate teaching and learning processes in higher education.

Conceptions in Higher Education

Educational approaches, such as a number of other knowledge domains, have been influenced by the modern science theoretical foundations. Modern science is based on logical-mathematical approaches, on a dichotomy relationship between subject and object and on use of disjunction and reductionism to explain complex phenomena, such as the ones proposed by Copernicus, Newton and Descartes (KOYRÉ, 2010; SANTOS, 2011; MORIN, 2013).

Nowadays, according to Cunha (2008) and Behrens (2005), educational approaches are being changed, from traditional and conservative models to emergent pedagogical ones, usually called by Newtonian-Cartesian models.

Traditional pedagogical models were used to fundament usual pedagogical practices at the majority of the existent universities, in such way, based on a logic-mathematical paradigm, as the one proposed by the modern science. In this perspective, the knowledge construction, is based just on knowledge that comes from testable facts, allowing generalizations, and thus, excluding knowledge not explained by their principles and rules, naming them as pseudoscience and metaphysics (SANTOS, 2011; MORAES, 2012; MORAN; MASETTO; BEHRENS, 2013).

So, it was emphasized quantifiable knowledge, reducing complex phenomena in parts and in the relationships among them, following a mechanist approach based on the world-machine concept (SANTOS, 2011). In this context, Ludwik Fleck (2010) called as knowledge esoterization, the disjunctive development and super specialization of sciences.

Pedagogical traditional models have influenced education, and consequently the way that knowledge is produced, mainly because they are anchored in the subdivision of the totality in minor parts, in order to understand the phenomena under investigation. Also, they are based on the dichotomization of relationships between subjects and objects, beings and knowledge, emphasizing knowledge objectivity and formalization, adopting a math language. This is an opposite idea of the subjectivity involved in knowledge construction (MORAES, 2012; MORAN; MASETTO; BEHRENS, 2013).

On the other hand, emergent pedagogic models, according Boaventura Santos (2010, 2011), were created based on the recognition that the subject can interfere in the observed object, exposing weaknesses in the accuracy of math and measures. Those models are supported by pedagogic practices based on problematization built upon the principles of modern science, promoting a rupture with traditional ways of teaching and learning. According these models there are other ways to produce knowledge that reveals historicity, social inclusion and learners protagonism, reorganizing the relationship between theory and practice as requirements for a significant learning.

Knowledge construction (and not just its transmission) according Edgar Morin (2012, 2013), is related to the elaboration of a complex thinking, connecting and contextualizing knowledge, and thus allowing the understanding of multidimensional realities, even considering the actual impossibility of to hold knowledge completely.

In this sense, interconnections and contextualization of different kinds of knowledge have been emphasized in higher education due to the necessity of use several focuses for understanding the human knowledge, referring to the interdisciplinarity as way to connect different kinds of knowledge (ALMEIDA *et al.*, 2007). This simplification seems irrelevant, since using as example the health field, significant advancements in this area caused the emergence of several disciplines and specialities (CANGUILHEM, 2011; FOUCAULT, 2006; 2014).

In this context, there are a significant number of discussions and researches in higher education about innovative pedagogical practices (LEITE; ZABALZA, 2012). One of the most frequent discussed subjects is the use of Information and Communication Technology to teaching and learning processes, allowing a broad access to sources of information, having the potential to go beyond information transmission, and also, helping lecturers and learners to understand and integrate different kinds of knowledge (LÉVY, 2010; KENSKI, 2012).

In addition to its contribution to facilitate access to the growing universe of knowledge, ICT resources can be applied in pedagogical mediation in higher education. This usage can overcome the pure transmission of information, avoiding the digitalization of conservative pedagogic models (MORAN; MASETTO; BEHRENS, 2013).

Even facing so great challenge, ICT have an important role in integration of several types of human knowledge, and thus, supporting the interdisciplinarity that characterizes the higher education. Furthermore, ICT can potentialize the articulation between theory and practice using simulations tools, and also contribute to the development of student-centred methods reinforcing learner's autonomy (KENSKI, 2012; MORAN; MASETTO; BEHRENS, 2013).

However, despite technological developments, it is undeniable of the importance of human factors in the teaching and learning process. Knowledge constructed by students needs to be treated with respect. Teachers need to integrate this knowledge to disciplines of the formal curriculum, contextualizing it with the learners' reality, driven to a meaningful learning (MORIN, 2013; MORAN; MASETTO; BEHRENS, 2013; FREIRE, 2014).

Thus, pedagogical innovation in higher education can contribute with learners' motivation, converging to a meaningful learning. Besides, it can contribute to form critical citizens, creative and reflexive, contributing for a society under permanent processes of changing (MASETTO, 2012). For this reason, it is important to include learners in decision-making processes about their own apprentice process (MORAN; MASETTO; BEHRENS, 2013).

This latter, known as participative learning managing, change the relationship between learner and teacher more horizontal, different from the conservative models, in which most of the decisions is usually made by the educators. The participative managing should involve learners since the conception until the evaluation of the teaching and learning process, making both responsible for the formulation and application of pedagogical innovations (MORAN; MASETTO; BEHRENS, 2013).

Then, the proposition and application of pedagogical innovations in higher education places both learners and teachers as authors and responsible. This allow that learners are no more mere receptors of transmitted knowledge, but proactive, searching their knowledge, with autonomy and freedom to create their own way to have a deep and meaningful learning (FREIRE, 2014).

However, a change of pedagogical thinking and behaviour, aiming innovative practices is a challenge for a higher education institution. This change should be defying and reflexive in order to overcome the information transmission methods. According to Dias Sobrinho (2005), universities constitute the most crystallized educational segments.

A change of model and way of thinking in this context, influence the university conception itself, sedimented for centuries in the society and in the educational scenario, as a producer of knowledge, having made few structural changes in its teaching process in the past years (LEITE; ZABALZA, 2012; MASETTO, 2012).

METHODS

This is a descriptive research with a qualitative approach (CRESWELL, 2014). It was executed with lecturers of the Federal University of Pernambuco (UFPE), which is a public

higher education institution located at Pernambuco state, Northeast Brazil. UFPE has three campi in the cities of: Recife (central administration), Vitória de Santo Antão and Caruaru.

The data for the research was gathered between June and July/2014, using an online form. This form was sent to the active UFPE teachers (approximately 2.200 teachers). We had 206 respondent teachers, whose information was individually analysed.

The form had information such as: courses and disciplines; department; the understanding about what is an innovative pedagogical practice; and if the teacher did some innovative practice with its description.

Data analyses were based on the Technique of the Discourse of Collective Subject (DSC), which was developed in Brazil, during the years 1990 by Lefèvre and Lefèvre (2005).

DSC is epistemologically supported by the Social Representation Theory, being a qualitative analyses technique, that synthesizes similar discourses through systematization and standardization of values, beliefs and representations of a collective, allowing researchers understand its opinion (LEFÈVRE; LEFÈVRE, 2005).

Thus, the process of analysis was started with the identification of the interviewed professors by a code with the “P” character plus an order number. Trying to minimize errors related to interpretations misunderstandings, the synthesis of the reported narratives was analysed twice by different groups of researchers. The entire team clarified doubts about categorization and interpretations in order to get homogeneity in the analyses process.

Data analyses looked for, in each teacher answer, identify key expressions and central concepts, group them according emerging similarities and anchorages, in order to build synthesis discourses expressing the understanding of the collective about pedagogical innovation.

The final discourse of the interviewed participants of this study was represented in italic, being written using the first singular person, in a way to express the collective thinking.

RESULTS

Initially, we made the tabulation of synthesis discourses, grouped considering key-expressions and central concepts, and respective anchorages. Considering the 206 answers, have emerged 5 different discourses, distributed according the Frame 1.

Frame 1. Distribution of synthesis discourses

Speech synthesis	Frequency
Methods and techniques of teaching that motivates learning	53,59%
ICT mediating pedagogical practices	12,41%
Sharing knowledge and experiences among lecturers and learners	12,41%
Integration between theory and practice	12,41%
The learner as the protagonist of the pedagogical practice	9,15%

Source: The authors.

Analysing the Frame 1, we can see that 53,59% of interviewed teachers referring to pedagogical innovation as the application of teaching methods and techniques, motivating students learning and placing them as the centre of the teaching and learning process, differently of the teacher as the source of the knowledge.

Even using traditional expressions to represent the concept of practice (such as methods and techniques), the professors emphasized the favouring of apprentice. This means that they changed the centre of the educational process from the teacher to the student learning. In addition, we can see that in the target institution is occurring a rupture with conservative models of teaching and learning.

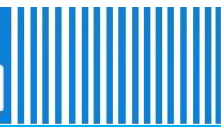
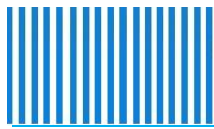
Such rupture would be based on student centred methodologies, which could be considered as a conceptual and methodological framework in the transition between a conservative conception and an innovative one (CUNHA, 2008).

On the other hand, when we compare the discourses with the highest and lowest frequency (Frame 1), we can see some incoherence: although students are being stimulated by teachers to learn, just a few lecturers are seeing them as the actual protagonists in their own learning process.

In the next section we can see the five synthesis discourses, categorized according the Frame 1, and respective discussions.

Methods and techniques of teaching that motivates learning

In the conceptions about innovation a new idea is presented. Lecturers start to collaborate with students in the construction of knowledge, leaving their role as the source of academic and professional knowledge. In this new approach, students are the centre of the teaching and learning process, although the undeniable relevance of teachers and content to be learned (MASETTO, 2012).



In this new scenario, lecturers have the role of mediators of the teaching and learning process, stimulating students to develop and consolidate their autonomy to the construction of knowledge (FREIRE, 2014).

This discourse shows us some kind of parallelism created by the lecturers between the new teaching methods and the students motivation. In this context, conceptions of pedagogical innovation would be linked to novelties about learning strategies and didactics, aiming to encourage students in the educational activities. However, there wasn't any remark about the relationship student-student in the learning process.

According to Masetto (2012), the stimulation and encouragement of students constitute the basis of pedagogical mediation, a horizontal relationship between students and teachers, shaping the teaching and learning process based on collaborative presuppositions, which could include the relationship between students, as an important factor in the learning of individuals.

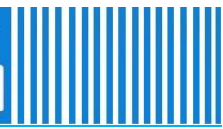
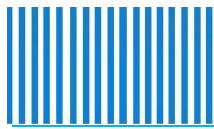
As atividades colaborativas entre alunos-alunos e alunos-professores podem se assentar em uma relação dialógica, superando modelos conservadores de ensino, nos quais o professor é a fonte de saber, enquanto os estudantes são tábulas rasas, prontos a receber o conhecimento vindo do professor, o que caracterizaria o ensino bancário, de acordo com Freire (2014).

Collaborative activities between students-students and students-teachers can be based on a dialogic relationship, overcoming conservative models of teaching, in which the teacher is considered the source of knowledge. In this models students are thought as shallow tables, ready to receive the knowledge from the teacher, which would characterize banking education, according to Freire (2014).

ICT mediating pedagogical practices

The inclusion of new digital technologies in classrooms is considered as differential resources to the teaching practice, as well to the stimulation of the student learning. This can promote new ways of teach and learn related to the emergent educational paradigm, attending new demands for a knowledge construction that is not only based on information transmission and memorization, and thus in a deeper understanding of these information (KENSKI, 2012; SALES; LEAL, 2018).

However, just to insert ICT in the educational context is not enough. It is important to ally to technologies a new teaching practice. Lévy (2010) highlights the importance of the inclusion of computer tools in the teaching and learning process, based on educational theories, avoiding the simple digitalization of conservative teaching methods.



So, as states Kenski (2012), new Technologies need to be understood and incorporated pedagogically, respecting the specificities of teaching and the technology itself. Thus, it is necessary that teachers learn how to use new digital technologies with pedagogical purpose, aiming to understand their real role in the student apprenticeship, beyond a simple motivating view, but another one promoting a deep and meaningful learning.

Moreover, digital technologies can be included in teaching and learning processes, arranging academic formation to the context of knowledge society that emerges from the technological development. This with the goal of stimulates creativity; promote critical thinking and student autonomy; and facilitating student-student and student-teacher interactions.

Sharing knowledge and experiences among lecturers and learners

The conservative conception of teaching considers students as beings without proper light, as blank papers, ready to absorb all that teachers transmits. Today, this is changing to a knowledge sharing and a collaborative construction of knowledge among students and teachers (MASETTO, 2012).

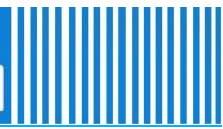
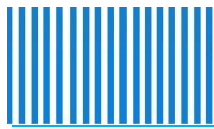
In this new scenario, teachers would respect knowledge and experiences from learners. Freinet (2004) and Freire (2014) widely discussed how the previous knowledge of the students can be considered in classrooms and how can contribute to the knowledge construction.

Gathering previous knowledge of students is essential for knowledge construction. It would fundament the connection and contextualization of teachers and learners, favouring the understanding of the involved content during the teaching and learning process (MORIN, 2013).

In addition, the knowledge construction, as mentioned before, would favour a meaningful learning among students. Sharing of previous and new knowledge among students and teachers can facilitate the acquisition and sedimentation of new information, beyond memorization (GADOTTI, 1995).

The perspective of this synthesis discourse addresses also a pedagogical mediation, in which the teacher assumes that he/she is not the source of knowledge, but instead shares and dialogues with his/her students to construct knowledge in a collaborative way.

According to Masetto (2012), pedagogical mediation is understood as a teacher behaviour that places himself/herself as a facilitator, stimulating learning. Pedagogical mediation is



related to affectivity allowing a better dialog between students and teachers, such as collaborative teaching and learning among these player, culminating in a participative managing of the whole educative process.

Integration between theory and practice

The relationship between theory and practice is an old discussion in the educational field. That discussion is presented in the corpus of interviewed teachers of this research. They report that both need to be joining together (theory and practice), dialoguing to enrich the learner apprenticeship.

In this sense, we understood that there is an intention for a rearticulation between theory and practice, focusing on the complexity involved in the understanding of problems of several disciplines, leading to the centralization of the teaching and learning process in the student, and to the facilitation of this process by the teachers (LEITE, ZABALZA, 2012; MORIN, 2013; FREIRE, 2014).

According to Cunha (2008), integrating theory and practice requires a feedback between them, differently of the conservative usage of the practice as a signification and confirmation of the theory.

In a view based on innovative pedagogical activities, the practice would be the source of theory, and also be understood under a multidimensional view, requiring an interdisciplinary intervention for its understanding (MORIN, 2013).

The learner as the protagonist of the pedagogical practice

This discourse has similarities with the first synthesis discourse (DS 1), mainly by the fact of centralize the teaching and learning process in the student. This is consistent with the actual paradigmatic change that is occurring in higher education (MORAES, 2012).

In DSC 1, however, the centre of the teaching and learning process was considered the methods and techniques of teaching. On the other hand, in this synthesis discourse, the student assumes a central role, becoming a protagonist in his/her learning.

Behrens (2005), in this scenario, emphasizes the importance of the paradigmatic transition in higher education that aims to include an emergent educative paradigm in its pedagogical practices, stimulating students to discover, transform and produce knowledge, and be protagonists in their learning processes.

The protagonism mentioned before doesn't mean the isolation between teachers and students. On the contrary, is necessary the protagonism of students and teachers, for a meaningful learning, contributing to a collaborative construction of knowledge (GADOTTI, 1995). Thus, teachers and students would have a more horizontal and collaborative relationship, being both players of the protagonism in higher education.

Student protagonism as a kind of pedagogical innovation, were the less frequent report on the synthesis discourses of the teachers studied, being one of the essential subjects in the pedagogical innovation proposition, and in the rupture with conservative models of teaching.

Thus, even if teachers presented reported conceptions strongly linked to pedagogical innovation, we must identify the weaknesses imbued in these same conceptions. This means that necessary modifications in the teaching and learning process need to be discussed, aiming at adaptations to new forms of teaching and learning, often linked to ICT.

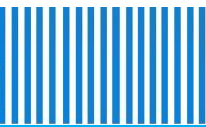
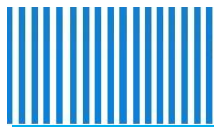
It is important to strength the academic relationship between teacher, student and content, and to understand how this strengthening can be effected. Although there were in the reports teachers concerns regarding the sharing of knowledge and the planning between teachers and students, in addition to the pursuit to integrate theory and practice.

It is clear that there is a defined path to pedagogical innovation in higher education, which must be strengthened and placed in permanent discussion, by all who participate of the teaching and learning process.

In this way, three aspects should be emphasized to strengthen pedagogical innovation in the researched context: to discuss the inclusion or the favouring of the affectivity between students and teachers, as a way of pedagogical mediation; to integrate other types of knowledge, in addition to those academically and scientifically structured; and to continually evaluate the teaching and learning process in order to maintain a consistency between learning goals, methods and techniques, and the evaluation itself.

FINAL CONSIDERATIONS

This study presented a discussion over the reports of university lecturers and their understandings about innovation in teaching practices. The most frequent innovation conception emerged on the lecturers' reports was the one that emphasizes the importance of having a teaching process motivating students to learn.

**Article**

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This result indicates a new awareness of university lecturers recognizing students as main subjects of their own learning processes, and thus creating a new dynamic in the teaching process. Besides, it indicated the importance in motivating students in their autonomy in the construction of knowledge.

However, this finding contributes to our reflection over the importance of adopting new didactic strategies in higher education, that is usually a more change resistant field, considering its secular bond to more conservative conceptions of science and education.

In this light, the understanding about pedagogical innovation in higher education can motivate university lecturers to adopt a more meaningful and humanized teaching process. This may provoke a paradigmatic rupture, generating a demand in the university beyond the student professional formation, but also, requiring teachers training, preparing them to its important role in the university educational cycle.

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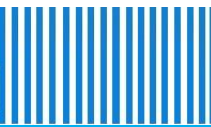
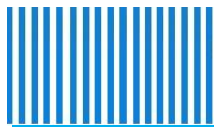
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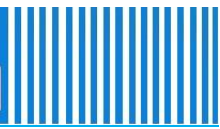
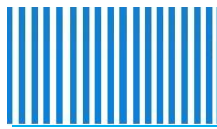
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