

## **Living innovation: experiences in the course of nutrition**

### **Vivendo a inovação: as experiências no curso de nutrição**

### **Viviendo la innovación: experiencias en el título de licenciado/a en nutrición**

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#### **ABSTRACT**

This study results from careful consideration of the pedagogical practices considered meaningful by students of the undergraduate course in Nutrition, as well as in the protagonism of the female teachers who develop them. We seek to understand whether these experiences mean innovation in the perspective of a paradigmatic rupture, considering innovation as a discontinuous process of breakage with traditional ways of teaching and learning. A qualitative methodology of study and the ethnographic approach principles were used. The activities indicated by the students as meaningful practice were of different types and included interactions with affective and subjective dimensions, which involve emotion, sensitivity and esthetic perception, thus articulating subjectivity and objectivity, science and culture, technique and politics; all analyzed from the scope of the studies of Sousa Santos, Cunha, Lucarelli, Leite, Tardif, Pimenta and Anastasiou. Personal and professional trajectories are defining factors of teachers' performances, revealing their conceptions concerning their pedagogical procedures. They indicate the conditions present in the constitution of the professionalism of the higher education teacher. In this

context, this study aligns with other research aimed at constructing the basis of a university pedagogy.

**Keywords:** university pedagogy - pedagogical innovation - higher education.

## **RESUMO**

O texto decorre de reflexão sobre práticas pedagógicas consideradas significativas pelos estudantes do Curso de Nutrição, numa instituição de Ensino Superior, Rio Grande do Sul, e no protagonismo das professoras que as desenvolvem. Procurou-se investigar se essas experiências significam inovação na perspectiva de uma ruptura paradigmática, compreendendo a inovação como um processo descontínuo, de ruptura com as formas tradicionais do ensinar e aprender. Utilizou-se a metodologia qualitativa de pesquisa e os princípios da abordagem etnográfica. As atividades elencadas pelos alunos como práticas significativas foram de diferentes naturezas, incluindo emoção, sensibilidade e percepção estética, e articulando subjetividade e objetividade, ciência e cultura, técnica e política. As trajetórias pessoais e profissionais são fatores definidores dos modos de atuação das professoras, revelando suas concepções sobre seu fazer pedagógico e indicam condições presentes na constituição da profissionalidade do docente da educação superior. Nessa direção, alinha-se a outros estudos que objetivam construir as bases de uma pedagogia universitária.

**Palavras-chave:** Universidades. Ensino. Inovação. Educação superior.

## **RESUMEN**

Este trabajo es el fruto de una reflexión docente sobre las prácticas pedagógicas, consideradas significativas por los estudiantes del título de Licenciado/a en Nutrición, pertenecientes a una Universidad de Río Grande do Sul (Brasil), desde el protagonismo de las Profesoras que lo han llevado a cabo. Pretendemos conocer si tales experiencias se traducen en innovaciones, desde una perspectiva de ruptura paradigmática, entendiendo la innovación como un proceso discontinuo de revolución ante las formas tradicionales de enseñar y aprender. Hemos utilizado una metodología de investigación de corte cualitativo, con los principios de abordaje etnográfico. La naturaleza de las actividades enunciadas por los estudiantes como prácticas significativas son diferentes, e incluyen la emoción, sensibilidad y percepción estética, articulando subjetividad y objetividad, ciencia y cultura, técnica y política. Las trayectorias personales y profesionales, son factores determinantes en el modo de actuación de las profesoras revelando sus concepciones sobre su quehacer pedagógico. Indican condiciones presentes en la constitución de la profesionalidad docente de la enseñanza superior. En esa dirección concuerdan con otros estudios que persiguen construir las bases de una pedagogía universitaria.

**Palabras clave:** Universidades. Enseñanza. Innovaciones. Educación superior.

## **INTRODUCTION**

The world of my daily life is by no means my private world,  
but is, since the beginning, an intersubjective world shared with my fellow  
beings,  
lived and interpreted by others.  
(WAGNER, 1979)

Throughout its history, the university has performed the functions of depositary of culture, of social agent for the maintenance of order, of means of adaptation to social changes, and, moreover, of producer of knowledge and of constructor of a cultural model for society. The present national policies for health and education indicate the need for changes in the processes of professional education and have promoted and supported initiatives towards the extension of the social responsibility of their alumni. Rhors, quoted by Sarmiento (1992), discusses the changes the university will have to experience in order to continue to face current demands. For the author, there are three fundamental elements for such a challenge: the idea of autonomy, which represents freedom and self-sufficiency of the scientific feature of existence; the quest for truth, which is effected within the professoriate and student body in a reciprocal action; and the unity between investigation and teaching, which requires intentional investments. These elements assume an epistemological and ethical rupture as emergent.

Souza Santos (2002) affirms that Western culture crosses a moment of transition from modernity to postmodernity, creating an environment of uncertainty and chaos that affects social structures and social practices, institutions and ideologies, social representations and intelligibilities, in life lived and in personality. This transition occurs between the paradigm of modern science, of knowledge as regulation, and an emergent paradigm named by the author as “the paradigm of prudent knowledge for a decent life” (p. 74). Societal knowledge, knowledge as emancipation, less visible, confronts the dominant paradigm and constitutes a new paradigm that permits reinventing the paths of nonconformism against all forms of naturalization of oppression. Souza Santos (2002) states that “the only way to think the future seems to be utopia. And by utopia I understand the exploration, through imagination, of new human possibilities and new forms of will” (p.331-332).

The transformations undergone by the university show a series of perspectives that stimulate the critical and historical understanding of their manifestations, both epistemologically and politically. For Rozendo et al. (1999), higher

education, in general, gives priority to pedagogical practices that often do not contribute to the development of a society of social subjects as constructors of their own history. For the authors, the prevailing conception is of an education for adjustment, for adaptation to norms and patterns of behavior considered adequate, in which a condition of passivity and of subordination to the authority of the educator is not infrequently imposed on the students. Therefore, educational practice is still rooted in the banking concept of education (Freire, 1979). However, if the traditional conception of teaching and learning is current in university, within it are also spaces for transformation, because within it exist human beings, and because these are actions concretized by human beings and destined for them, actions aimed at the development of critical consciousness concerning reality. In the opinion of Rozendo et al (1999), the university, as a social institution inserted within a concrete reality, experiences the dialectics of social movement. At the same time that it determines, it is determined; at the same time it transforms reality, it also reproduces that reality. It shares the contradictions of society and produces its own contradictions (p.16).

Assmann (2004) also contributes by affirming that the conception of knowledge encompasses all natural and social processes peculiar to the context where it is generated and, from there on, such processes indicate forms of learning. In this perspective, besides informative instruction, the experience of learning implies reinvention and the personalized construction of knowledge. With this possibility, the dimension of pleasure is a key condition that involves the subjectivity of the subjects implied and provides enchantment. For the author, “reenchanting education means to place emphasis on a view of educational action as the opportunity for and production of experiences of learning” (p. 29). The author also reinforces that the pedagogical environment must be a place of fascination and inventiveness, so that the process of learning happens as the *mixing*<sup>1</sup> of all senses, potentializing them and (re)signifying the ways in which we conceive the world. The principle that all morphogenesis of knowledge has something to do with the experience of pleasure must be (re)introduced in schools, since in its conception, knowledge only emerges in its vitalizing dimension when it is constructed on this presupposition.

When studying educational practices, we cannot deny that education as a whole has a political character; but we should rather, understand that ethical-political dimensions are embedded in *fields of meaning*, which emerge in the form of *learning experiences* that in turn surface from self-

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<sup>1</sup> Concept originated from the field of music, which defines Assmann’s proposal well. “It is the art of *DJs* passing from one musical track to another, keeping the rhythm at the dance floor. When perfect, the dancers do not even realize the track has changed” (sic). Available at: <[www.terra.com.br/mp3box/col\\_pecanha4.html](http://www.terra.com.br/mp3box/col_pecanha4.html)>, accessed in Aug. 2005.

organizing processes of real life, where living and learning are identified in a single process (Assmann, 2004, p.108).

The pedagogical practices conducted within the university classroom are reflexes of society and, in turn, are reflected in it, mirroring the complexity of social dynamics and human interactions. Knowing and unveiling these practices is essential in order to understand them, subsidizing university teachers to analyze the moments of paradigmatic transition they live in. Reexamining the university teacher's education in the light of the changes of paradigm is to rethink innovation, in the sense of understanding the activities of teaching, investigation and learning as in constant movement, developing throughout history, inciting and propitiating the student's discovery and learning by means of a dialogical relationship with the teacher.

From this perspective, we sought to identify and characterize the pedagogical practices of teachers of an undergraduate course in Nutrition, who have shown evidence of emancipatory learning processes, reflecting on the innovative character of such practices, understood as those that favor rupturing with traditional forms of teaching and learning. The methodological procedures adopted involved dialogue with the literature and records of interviews with teachers identified by their students as having produced experiences of teaching and learning that have been significant in their academic trajectories. Relating the meaningful learning processes with the possibility of innovation was another intention assumed in the context of the study. To achieve this, in dialogue with the authors chosen, we sought to identify certain characteristics in the experiences, such as: - being in constant movement, inciting and propitiating the discovery of the new; - working with multiple tensions present in students' activities; - favoring a horizontal teacher-student relationship, permitting the attendance of each individual's singularity, avoiding homogenization; - assuring the relation between teaching and research, with work as educative principle; - consisting of collective activities pervaded by intentionality; - granting research a prominent space of mediation between teaching and learning.

These characteristics, assumed as the starting point for the research, are similar to categories organized in other studies (Cunha 1998, 2004) and which were taken as referents for data analysis, with the intention of contributing to the theoretical consolidation of the analytical frameworks of studies regarding innovation. They are as follows:

- ***rupture with the traditional form of teaching and learning*** and/or with the academic procedures inspired by the positivist principles of modern science;
- ***participative management***, by which the subjects of the innovative process are protagonists of the experience, from its conception to results analysis;
- ***reconfiguration of knowledge***, with the abolition or reduction of the classical dualities between scientific/popular knowledge, science/culture, education/work, etc.;

- *reorganization of the theory-practice relationship*, disrupting the classical proposition that theory precedes practice, which dichotomizes the view of totality;
  - *organic perspective in the process* of conception, development and evaluation of the experience conducted;
  - *mediation* between the subjectivities of those involved and knowledge, encompassing the dimensions of relationships and of enjoying, of mutual respect, of the bonds established between the subjects and what they intend to know;
  - *protagonism*, understood as student participation in pedagogical decisions, as well as the valuing of students' personal, original and creative production, stimulating more complex, non-repetitive intellectual processes.
- The above categories express the understanding that innovation presupposes changes in the conception of knowledge as presided by modern science. Therefore, they refer not only to methodological arrangements or to the inclusion of technological apparatus, they necessarily incorporate a new epistemology translated into classroom practices.

### **Getting to know the experiences that announce innovation**

We describe each teaching and learning situation that constitutes this study, according to the teachers' accounts. We sought to identify in these, the theoretical categories that guided the research. The following experiences are reported the same sequence that the interviews were conducted in.

#### **Experience I: The progressive construction of professional identity.**

This is an experience in the course subject named Professional Training III, which constitutes the last stage required for the conclusion of the Nutrition Course. The teacher works with a group of approximately 15 students, who realize their training in different hospitals. The students develop their activities interacting with hospital routines, visiting hospital beds, making nutritional evaluations, accompanying patients' evolution and effecting the necessary interventions. All activities are supervised by the hospital nutritionists. When the hospital allows it, students participate in discussion meetings with multidisciplinary groups.

The teacher executes academic supervision, in weekly meetings at the University. In these meetings, the students report their experiences, clarify their doubts and discuss nutritional procedures. It is the teacher's responsibility to accompany the accounts of real cases, facilitating a critical evaluation of the procedures adopted and encouraging the search for up-to-date articles on the subject. Considering that the places which accept students in training do not always have ideal conditions for providing health services, the role of the teacher is to challenge students to develop their potential, mobilizing knowledge for the development of concrete situations of learning. For the

teacher, students must *try to make a difference, presenting differentiated proposals, valuing personal attendance, because no patient is same as any other.*

According to the teacher, the activity challenges towards the new, allowing students practice in the role of nutritionists. In describing the activity, she says: *I encourage the students to develop their potential as nutritionists in the clinical field somewhat more independently than the routine in the place establishes. I challenge the students and say: you must try to make a difference. She goes on to say, I believe this way the students test themselves. They don't believe they can go that far. They start realizing that the best reference is not always the local team and discover other references, discover the bibliography, the latest scientific articles on that pathology. And they can add these references to those the team has. They begin to discover themselves, like someone they didn't know [...] like someone who is capable of knowing more than just what's required.*

The student is the lead actor or actress in the process of his or her development. Through this kind of action, they acquire and expand their interactive repertoire, consequently increasing their capacity of intervening actively and constructively in their context. The core of the proposal lies in active, constructive and solidary participation, through which students get involved in the solution of real problems in the university, in the community and in society.

## **Experience II: Walking the paths of research.**

This is an experience conducted in the course subject Seminar II. The discipline addresses themes dealt with in Axis II - Nutrition and Human Development - and aims to systemically work with contents of the course subjects that integrate the common axis. It also proposes that students integrate knowledge, undoing the fragmented relation that exists between contents. The proposal is that students hold broader discussions about certain themes, permitting interactive perspectives of the disciplinary fields involved, as well as reviewing and providing eventual themes. This course does not have a totally preestablished programmatic content. This is chosen at the beginning of each semester, based on evaluations by the teacher and her students, as long as they consider contemporary issues. The planning of the activities is elaborated every semester and is referred to in the official course description and course outline, known to all the students. The teacher suggests strategies, supported in discussions with the students. Thus, she gives them the opportunity to update their knowledge and establish interactions in the field of Nutrition and related areas. The class of approximately 30 students is divided into groups. Each group is responsible for the presentation of a theme, based on the principles of Seminar technique. The dynamics must take into account the plurality of the participants. The seminars are accompanied by the teacher, who acts as an articulator.

At the beginning of the semester, the teacher works on preparing the seminar, showing students how to conduct bibliographic research, the steps, concerns and purposes. She takes the students to the library and teaches them how to search on the Internet. She shows them her favorite spots in the library, stimulating them to handle the main journals and highlighting their importance in the scientific context. She makes each student read an international journal, stimulating reading in a foreign language and showing how feasible it is to accomplish this activity. In the presentation of the seminars, the currentness of the theme is emphasized, as well as the bibliographic references that support it. It is important to stress that the production of the other students is discussed in presence of whoever was the author. Error is treated as a diagnosis factor, provoking interventions from the teacher and students.

In the presentation of the seminars, the teacher complements the topics, emphasizing how they are connected with professional practice: *I always complement [the class] a great deal with my experience, so in every seminar, the students seem to learn a lot. For every theme, I report on a case, I tell a story.*

In this experience, evaluation takes place through multiple procedures, including a test covering the knowledge worked on in class and the discussions raised by it. Processual procedures and the involvement of students with the proposal are also evaluated.

The research activities developed by the teacher reflect in her work in class. According to the teacher's perception, the experience is meaningful to the students because her name is linked to the development of research. *I have created a culture of research development since I got here in August 2001. By October, I already had students going to the Centennial Hospital, selecting children. In a short period of time I was promoting works and the students commented: "I'm doing a study with professor Márcia, I'm collecting data". This has probably generated a whole culture around my name [...].* This is an interesting process, because it integrates teaching and research and gives meaning to knowledge production, a task of the university. It integrates the undergraduate space with research, embracing this condition as a possibility of qualifying the process of teaching and learning.

### **Experience III: Theory in practice.**

This is an experience in Professional Training II, a subject of the Nutrition and Human Development Axis, conducted at the Mother-Infant Hospital Center. This is a public hospital, where the teacher is reference to her students, since she used to have her professional practice there, supporting the theoretical framework presented in the classroom and inserting students in the professional field. The students visit the parturients, in their beds, assessing their medical records to understand their situation. They accompany the newborns' first nursing and stimulate the mothers to breastfeed their babies. They show the mother how to place the baby at her breast, helping her empty the breasts. They



observe the patients' reactions and try to intervene in the cultural practices of breastfeeding, from the perspective of improving them. The students who choose to do their training at this place experience the practice of public health, in a reference hospital for the care of pregnant women. The same teacher is also responsible for the course subject Nutrition of Life Cycles I, and has already developed the prerequisites that will be the object of their training with her students, including aspects related to pregnancy and to the baby's first year of life. For the teacher, this previous relationship with her students favors learning, which can be perceived in her testimony: *I think that I, particularly because I work with "Cycles", can link up with the hospital where I supervise Professional Training. They conform to one another; you can connect classroom issues with practice issues. I think the students see their learning evolving, putting into effect what they have seen in class. They can see in practice what has been discussed in the classroom. I think this is rather satisfying.* This experience provokes a proactive attitude in the students, since it favors the establishment of a relationship between the new, which is being lived in their training, and the knowledge already present in their cognitive structure, permitting the establishment of networks and relations of different nuances of extension and complexity. In this experience, the students are also protagonists in the construction of their knowledge when they are called to participate in operative groups involving the nursing mothers and the professional team: doctors, nurses, psychologists, etc. This favors interpersonal relationships and the communication processes between the students and their patients; the teacher and the students; the students and their peers; the students and professionals of the field.

#### **Experience IV: The teacher as facilitator of learning.**

This subject, which studies the physical, chemical and biological alterations of food products, occurs in the second semester of the course. On the first day of class, the teacher characterizes the subject, describing the topics that will be studied throughout the semester and reviewing the contents of the previous discipline. In the first class the teacher seeks to make students understand the importance of knowing the chemical composition of foods, how they can be altered, how this occurs in daily actions and how to use these properties in the practical activity of the professional nutritionist, favoring a view of the academic trajectory the student should pass through. The teacher chooses, as the referent to her proposal, a certain food that can provide support to the exposure of the content. *I think of a food product and try to exhaust it, beginning with its chemical composition and following through to the end, its effective use.* A theoretical explanation about the product is provided and, following this, the students exercise what they have learned in preparations at the Nutrition and Dietetics laboratory. Groups of 4 to 5 students are formed, each group taking on one of the experimental kitchens where the preparations should be executed. At the end of the period, each group presents to the whole

class the preparations made, describing the process and the alterations proposed. After tasting, each preparation is evaluated. When explaining, the teacher questions students' knowledge and highlighting the changes the products undergo and their use in the nutritionist's professional practice. The intention is to take daily life information as the starting point for theoretical reflection. The teacher explains: *When I talk about milk, I talk about its by-products, like, for instance, butter. And I ask: "What is the characteristic of butter? How do we find it in the market? What is clarified butter? Why do Chefs use clarified butter?" So, I keep talking and I think this holds their attention, because students can see, in practice, how they are going to use this product.*

According to the teacher, there is no fixed chronogram to be followed. The choice of contents to be developed in the classes are based on the interest aroused in students in the classroom or provoked by their curiosity, stimulated by the teacher, so that students deepen their knowledge of the food product, going beyond the minimum required by the course subject. However, it is important to emphasize that there is a script of important contents to be studied, which, although not fixed, by the end of the course, all the contents have been covered.

### **Reflecting on the experiences that announce innovation**

When the students elected the experiences considered meaningful, they revealed the importance given to the movement between theory and practice as reference to the academic work. This category, which emerges from the students' testimony, is reiterated by the teachers when they describe their practices. The experiences reported by the students are carriers of teaching situations that develop the theory-practice axis in innovative activities, occasionally permitting the discrimination of categories that include activities with differentiated meaning. The importance of the work developed was verified in the practical training fields, as well as in laboratory activities and in visits to the libraries. Team work and reflections for the systematization of the studies are emphasized. In all these instances, what the students value is the condition of producing knowledge through investigation and being the protagonist of an action that has reality as a referential.

Academic benches are not the only space for professional education. Professional education occurs in multiple spaces, in the same way that the learning that occurs in each of these spaces is multiple. For the teachers interviewed, the practical activities developed in nonconventional territories are the starting element for knowledge acquisition. They provide students with a more reflexive and active attitude towards new knowledge, allowing relationships to be established between reality and theory and thus making a reconfiguration of knowledge possible. For these teachers, the conception of knowledge should involve flexibility and movement, with a significant valorization of professional experiences as a way of permitting an articulation

between theory and practice, as observed in the following accounts: *From my point of view, all lived activity has significant importance. I think practice and experience are fundamental for unleashing the whole process of human knowledge. Or: I think that in the course subject [...] we have to rethink in order to combine theory and practical activity. I feel I'm not doing that yet. I believe I could work with the newborn better if the students could see it not only in slides, but as it is in real life. And that's what they see in Professional Training II.*

This conception is also shared by Lucarelli (2005), for whom the theory-practice articulation is constituted in the central axis that dynamizes didactical-curricular innovations in the university classroom, one possibility for the transformation of university teaching. For the author, dada la importancia que asumen en la institución las definiciones acerca de la naturaleza del conocimiento tanto en lo relativo a su producción como en lo referente a los procesos y contenidos en la formación de los sujetos; a la vez, esa articulación se hace presente en el contexto universitario a través de la inclusión de la profesión, sus representaciones y sus prácticas, como anticipatorios del campo laboral en el que desarrollará su actividad el egresado (p.187)<sup>2</sup>.

This view permits the articulation between theory and practice to be analyzed in the perspective of an interlacing of epistemological and didactical aspects, a perspective which indicates new approaches towards the processes of professional education. Lucarelli reminds us that this *new epistemology* presupposes that the articulation between theory and practice is developed through a methodological strategy in which *reflection in action* is conciliated, providing a reflection of what one is doing simultaneous to the moment of action. She also argues that

en el caso de la formación en la práctica profesional, el conocimiento en la acción propio de cada campo adquiere las características que le otorga el contexto estructurado, social e institucional, de esa profesión. Conocimiento profesional y sistema de valores compartido definen un determinado campo profesional y generan las formas del conocimiento en acción, a la vez que la concepción epistemológica acerca de la práctica profesional determina la estrategia general de formación (2005, p.192)<sup>3</sup>.

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<sup>2</sup> (...) given the importance assumed in the institution by definitions concerning the nature of knowledge, both with respect to its production and with respect to the processes and contents in the subjects' education; this articulation, in turn, is made present in the university context through the inclusion of the profession, of its representations and its practices, as anticipatory to the work field in which the activity of the graduating professional will take place. (translator's note)

<sup>3</sup> (...) in the case of education in professional practice, knowledge in action particular to each field acquires the characteristics granted by the structured context, both social and institutional,

In this case, the valorization of experience is justified as a possible means of articulation between theory and practice in professional education, as stated by our interviewees: *In Professional Training II the students have the opportunity to practice what they have been working on in class. And also: I show them what is going to happen during the course. What the importance of a certain food is, when it should be prepared? And, afterwards, what the repercussions will be on diet therapy? I always ask: "In diet therapy, is this food product important? How do I use it? Can I insert it in any diet?"*.

According to the teachers, in this exercise, students develop their autonomy and their capacity for analysis, reflecting on the process as a whole and evaluating the use of that knowledge for their professional practice. They are stimulated to search for new knowledge, as they are challenged by questions that arouse their curiosity and their need to go further in their knowledge. The contents are explored considering the meaning attributed to them, as well as their consistency and functionality to face real situations. The construction of meanings goes beyond a type of learning based in memory and calls for a type of learning that has as prerequisite, the integration of theory and practice.

It is possible to perceive that the experiences reported identify with the concept adopted here for innovation, as they stimulate students to perform a reading of the professional field, demanding epistemological reconfiguration. The concept of knowledge is understood according to other bases, moving away from the traditional formulation of modern science, prescriptive, generalizing and compartmentalized. The student seeks knowledge perceived as process, always in movement, favoring rupture with the traditional teaching view. We can also observe that the teachers recognize that there are alternative forms and sources of knowledge production: *So I tell them: "Suggest something, offer your proposals. If you were the nutritionist at this place, how would you manage the care of these patients?" This way, I challenge them all the time, during Practical Training.*

The teachers seem to broaden learning dimensions, stressing the repercussion of previous experiences over the assimilation of the new knowledge and emphasizing two conditions for the (re)construction of meaning: a content potentially meaningful and a favorable attitude towards meaningful learning, which confirms Lima's (2005) view that "meaningful learning requires that the learners have a proactive attitude that favors the establishment of relations between the new and the elements already present in their cognitive structure" (p. 374).

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of that profession. Professional knowledge and a shared system of values define a professional field, and generate the forms of knowledge in action, since the epistemological conception of the professional practice determines the general strategy of professional education. (translator's note)

In the experiences reported, the conditions for rupture are perceived when the teachers facilitate the organization of learning environments that are mediators of the processes of appropriation, discussion, analysis and knowledge production. The activities, as they make it possible for the students to reach another level of knowledge appropriation, as they assume new meanings and as they favor interrelations with daily life, in different social levels, reveal the configuration of movements of reflection, of critical analysis and of proposition of routes.

In the process of the research, we have also found evidence of a redimensioning of the traditional form of working with error, as stated by one of the interlocutors. *I listen up to the end, even if the students present a work beneath that expected. Then, for the class as whole, I punctuate certain manifestations, concerning some observations. Sometimes I realize that one of the groups did not achieve the objectives, did worse than expected. I don't even need to say that. They come to that conclusion in the large group and speak up, saying "can we try once more? We're going to try somewhere else!"*

As observed, from this perspective, error becomes part of the teaching and learning process, because it is worked as part of the construction of knowledge. This condition unstresses the students, loosening them for new epistemological adventures. Thus, the pedagogical relation is not perceived as a field for homogenization, which hides social differences, conflicts and contradictions, but as a field of identity and diversity.

Investigating the processes of teaching and learning used in the Nutrition Course has helped us understand that the forms by which knowledge is transmitted may be more significant than knowledge itself. Inspired by Bernstein, in previous studies we stated that "it is not the contents or the information that carry the social relations that generate social or cultural reproduction, but the form of transmission, understood as the web of power relations and of subjectivity that pervade them" (Cunha, 2001a, p. 105).

It was possible to perceive that the activities considered meaningful by the students in their professional education, irrespective of the place where they occurred and of the objectives established in the design of the curricular structure, become methodologically materialized in the teaching and learning actions that take place in the classroom. These actions somehow affect the theory-practice articulation, considered as a genuine teaching and learning process, revealing that the elements that constitute everyday practice include, even if instinctively, the dimension of pleasure. All the teachers studied mention the satisfaction and gratification present in their teaching. This condition reinforces Rios' (2002) perspective, for whom quality in education occurs when we do our mission well and when it, in turn, does us good.

The research conducted restates the importance of understanding and developing knowledge regarding teaching practices instituted in the University. It is also important that teachers reflect upon them and that the alternatives for progress arise from their real possibilities. For Zabalza (2004), "to reflect is not to constantly return to the subjects using the same arguments; it is to document

one's own performance, evaluating it and introducing the appropriate adjustment processes" (p. 125).

Thus, this study also sought to contribute to the reflection that has been taking place, through analysis of the articulations between the political-pedagogical project of the Nutrition Course and the innovations that occur in the classroom, considering that their educational value lies in the flexibility and contextualization of teaching and learning acts. Through this, it was possible to verify that we are living the phase of the so-called *transition of paradigms*, with all the tensions and challenges it imposes.

We perceived that, since innovation always has a collective component, it is by socializing the experiences that are meaningful for the students, which result from innovative practices of their teachers, that we can amplify the conditions for the necessary paradigmatic rupture. The teachers who are already producing innovations may inspire a pedagogical renewal that leads to this amplification, as well as showing that the establishment of new relations among teacher, student and knowledge is possible. Thus, we share the successes and difficulties of teachers in the search for a practice that may progress continually, including Course methods, objectives and contents and changing teaching and learning praxis, promoting the pleasure of studying, of discovering and of full citizenship.

We reassert the importance of knowledge production concerning university pedagogy, in an intersection of knowledge that includes the area of education and the scientific and professional field of academic careers. It appears that through epistemological dialogue that we can further advance the university teacher's knowledge and professionalization. This effort requires humility and the ability to dialogue and requires common objectives.

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