Challenges to the curricular reform in an undergraduate nutrition program: case report

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Resumo

Longitudinal and descriptive study aiming to identify the persistent challenges to the curricular reform in the undergraduate nutrition program at Fluminense Federal University. The professors' evaluations of university disciplines, carried out in 2009 and 2011, were compared. Data were collected through a questionnaire with nine mixed questions following the guidance of the Program Pedagogical Project; 23 professors participated in 2009, and 34 in 2011. The subjects whose professors participated in both 2009 and 2011 were selected. The results of 18 questionnaires on "contribution of the discipline to develop skills"; "identification of the teaching-learning method used"; "connection of theory and practice"; "integration among disciplines"; "integration among teaching, research and extension" were discussed. The results of 2009 and 2011 showed an ease for "integration among the subjects", "theory and practice" and "teaching and research activities". Regarding "contribution of the discipline to develop skills": there was an increase from 30% to 56% professorin professors' response, explaining how to better develop them. Professors who "deploy active of teaching-learning methods" reduced from 30% to 11%. Finally, "integrating teaching and extension activities" is still difficult: both in 2009 and 2011, only one professor accomplished it. The challenge to adopt an active of teaching-learning method and develop extension activities remains. We believe the success of curricular reform is conditioned by the participation of all actors involved in this process, because their complexity requires work with professors, students and professionals of the same field to share efforts between people who hold some knowledge and power.

Key words: Curriculum. Institutional Evaluation. Nutritionist.

Introduction

Educational reforms occurred in Brazil in the 1980s and 1990s, in line with the recommendations by international organizations like the World Bank, were based on the proposition that education systems should diversify and become more flexible, to acquire greater competitiveness and reduce public spending.[1]

In this sense, the Law of Guidelines and Foundations of National Education (LDB) of 1996, ensuring higher education a greater flexibility in the curricular organization of programs, promoting the separation between degree and professional exercise and considering the increasing heterogeneity of both previous training and expectations and interests of students, justified the end of the "Minimum Curriculum" and laid the groundwork for the National Board of Education/ Board of Higher Education to institute the guidelines for the "National Curriculum Guidelines for Undergraduate Programs" (DCN).

In general, these guidelines were to take on elements of essential foundation in each knowledge area, field of knowledge or profession; reduce the length of the program at the undergraduate level; promote ways of learning that will help reduce evasion; induce the implementation of initiation to research programs and include ethical and humanistic dimensions, developing in the student citizenship-oriented attitudes and values.

The DCN concerning undergraduate health care were approved and published in the second half of 2001 and during the early months of 2002. In addition to ending the requirement for a minimum curriculum, they indicated the need for major changes in pedagogical projects of programs in practical environments, relations with health services and communities. The guidance for vocational training was in order to contemplate the social health needs with an emphasis on the Unified Health System (SUS).[2]

In this sense, there is the fact that the area of Nutrition was advanced in relation to this discussion, since it has been considered that between the Minimum Curriculum prevailing and Law No. 8234/91, which explained new assignments for the nutritionist, there was a lag. And yet, because issues such as theory/practice disintegration, besides insufficient workload for supervised training and the need to tailor programs to the labor market had been under discussion in the category for some time.

A Committee of Experts, which based on legal nutritionist activities and the jobs available, elaborated the Draft on Curriculum Guidelines, which was discussed with professionals, representatives of the Schools of Nutrition, Education Commission of the Federal Council (CFN), Representatives of Regional Councils and the Brazilian Association of Nutrition, in the I Seminar "New Directions for Teaching Nutrition"/Brasília/1997, sponsored by the Education Commission of the CFN. Participants, after returning to their home institutions, continued discussions and sent contributions to the Commission of Specialists.[3]

The undergraduate program in Nutrition of the Fluminense Federal University (UFF), the object of this case report, performed reflections on this topic since the 1980s. In the period between 1996 and 1999, the process of discussions moved towards the following issues: the object of study and the work of the nutritionist; potential areas of activity; the professional profile to be trained - general and integrated training, understanding the nutritionist as a healthcare professional; and the time for integralization of the program - the need to extend the hours of supervised internship; the inclusion of contents such as ethics, professional practice and research methodology; anticipation of practical activities and early contact with reality - creation of integrated practices; the correlation of contents between disciplines, which should be arranged in a process of increasing complexity, the expansion in the number of elective disciplines, and the organization of the program, to allow students to develop other theoretical activities and extracurricular practices.[4]

Through group work, extended meetings and thematic seminars, faculty built the Pedagogical Project of the Program (PPC) and the new Curriculum Framework. It is noteworthy that all decisions relating to this process were approved by the Board of the Undergraduate Program. The implementation of the new curriculum began in March 2007 and completion took place in December 2011 with the graduation of the first class.

According to the PPC, the general objective of the program is to "train nutritionist professionals able to understand and act in an integrated manner in all aspects of man's relationship with food, developing their actions with autonomy, creativity, technical and relational competence, based on ethical principles". In this sense, the new program curriculum presented a list of required disciplines from different fields such as Biological and Health Sciences, Social Sciences, Humanities and Economics, Food Sciences and Nutrition.[4]

To potentiate the interplay between the content and between different disciplines to better integrate the theoretical and practical aspects of the curriculum, and considering that this process has greater possibilities to develop when educational activities are based on the strategy of problematizing reality, the current PPC sought to expand the spaces and times of student experience in institutions where the practice takes place. The strategy was through increasing the hours of the discipline Supervised Internship - which went up to 720 hours equally divided into three fields: food for communities, clinical nutrition and public health - and the creation of the discipline Integrated Practice - 260 hours divided into five fields: basic health network, childcare (currently: early childhood education), dietary lab (currently: food trade units), meal production units and hospitals.[4]

The partial result of the implementation process of the Pedagogical Project of the Undergraduate Nutrition Program of UFF was presented in four scientific events: Brazilian Congress of Nutrition (CONBRAN) in 2004, CONBRAN in 2008, the UNIDA Network Congress (development of human resources in health) in 2009 and XI National Congress of the Brazilian Society of Food and Nutrition (SBAN) in 2011. In the latter, the result of the evaluation of the curriculum reform by professors of the first four periods of the program, held in 2009, was presented.

Since the installation of the new curriculum structure was completed in 2011, the research on how the professor evaluated the curriculum reform, now fully deployed, was carried on. The survey was developed by a group of professors who advised the Coordination of the Undergraduate Nutrition Program in deploying the new curriculum.[5]

In this perspective, this article discloses partially the result of these reviews, because its objective is to identify the difficulties faced by faculty and resistance to curriculum reform, through the comparison of evaluations of disciplines taken in 2009 and 2011. With the release of this experience, we hope to contribute to critical reflection on the teaching practice at the time of curriculum reform and expand the exchange of information among peers.

The methodological path covered

This was a longitudinal study of a descriptive nature, conducted in the undergraduate program in Nutrition from UFF, approved by the Medical School Ethics in Research Committee / Antônio Pedro University Hospital, on December 5th, 2008, registered under CAAE Nº 0187.0 .258.000-08.

For data collection, a questionnaire was drafted with nine mixed questions, i.e., part of the questions were closed and part were open, so that the professor could contribute more effectively with their experience. The questionnaires were developed by the authors of the article, based on

the questionnaire used in the first stage of the research, when the professors who taught classes in the first four semesters of the program rated the reform process in 2009.

At that time, the script of questions followed the guidance of the PPC for the periodic evaluations, which should include: achieving the goals and strategies of teaching and learning formulated in the PPC; adequacy of the physical conditions of the institution to the proposed changes; identification of problems in matching the old and new curriculum; forms such as the skills and competencies defined in the curriculum are evaluated; development of the integration research-teaching-extension and integration between different disciplinary contents; articulation between theory and practice.

For the current stage, the questionnaire was altered to include other competencies and skills to be developed during the training, verify the presence of repeated and missing content on new disciplines and meet the professor's opinion on the overall course load, that is, if considered sufficient, insufficient or excessive.

All professors who taught the 60 compulsory disciplines for the Nutrition program from March 2010 to December 2011 and who were willing to participate attesting agreement through the term of free and informed consent were included in 2011. When discipline was given by more than one professor, to the discipline coordinator was asked to respond to the questionnaire. When the person responsible for the discipline was replaced during the research period, the professor who remained teaching classes to nutrition students the longest was suggested to participate. The professors who are authors of this article were excluded. Initially, we contacted the heads of departments offering the 60 required Nutrition disciplines, to explain the purpose and methodology of the research and to identify and invite professors to contribute.

In order for professors to assess if the discipline had opportunities to contribute to the skills and competencies required for the formation of nutritionists, those provided in the PPC were clustered into 13 items, including more general skills and specific skills.

In order to know the teaching and learning strategies used, the professors were presented three options:

a) the discipline is developed predominantly in the form of content delivery systematized by the professor;

b) discipline is partially developed in the form of content delivery and systematized by the professor and presents a part in which students develop more active forms of learning;

c) the discipline is developed predominantly so that students act more actively in the construction of knowledge.

For the remaining questions, no options were presented to the professors. The responses were categorized initially into affirmative and negative, and subsequently examples were analyzed and justifications were submitted by professors in order to verify how they have interpreted the proposed changes.

Results and Discussion

Attended the stage in 2011 the professors accounted for 34 disciplines of the undergraduate program, which corresponds to 57% of the compulsory disciplines. However, in preparing this article, the only evaluations selected were those of disciplines whose professors responded simultaneously to the questionnaires of evaluation of the curriculum reform in both 2009 and 2011.

Thus, below will be discussed the results of 18 disciplines, which are: Biostatistics, Physiology, Genetics, Introduction to Management, Mycology, Parasitology, Virology, Chemistry and Biochemistry of Foods, Organic Chemistry, General Microbiology, Food Technology, Food Composition and Food Microbiology (offered by the departments outside the Faculty of Nutrition); and Introduction to Nutrition, Nutrition and Dietetics, Integrated Practice in Early Childhood Education, Integrated Practice in Basic Health Unit and Dietetic Techniques (offered by internal departments of the Faculty of Nutrition).

It is noteworthy that of these 18 disciplines, only eight remain with the same professor. This means that professors who participated in the survey in 2009 were no longer the person responsible for ten of the disciplines evaluated in 2011.

The contribution of the discipline to build skills and competencies

The Curriculum Guidelines for the Nutrition Program (DCN)[2] describe, in articles 4 and 5, the competencies and skills necessary for the professional nutritionist. It is the duty of the undergraduate program to provide students the knowledge needed to develop them. However, the development of strategies for vocational training according to this logic is still a challenge to the implementation of curriculum reform in the UFF Nutrition program. Although some professors have clearly described educational activities that aim to develop the skills proposed, others still find it difficult to operationalize this task.

Professor 04 answered that question exemplifying this difficulty, as it has not identified any possibility of contributing to skills training in the discipline he teaches.

> *We can not answer the questionnaire 1 to 13. [...] The program is taught during 01 semester, with 30 hours. Since we did not receive responses from all of the students and those in professional activities, the maximum assessment is taken by their performance during the program. Out of few students, we can see that those who tutor the program, compared to the previous curriculum reform, performed better in the academic tutoring activity.*

The more general abilities and skills "learning to learn" and "learn to communicate" were those that most of the 18 professors (83%) said to be able to develop through their disciplines. They are basic and necessary abilities for the proper performance of the professional in any area, especially in a job market marked by rapid change and the need to play their roles in a multidisciplinary team.

For *professor 22*, the situation that exemplifies how the discipline contributed to the formation of these two skills is depicted as follows:

> *[...] we seek to address the importance of this knowledge in the practice of nutrition, particularly through seminars and discussions regarding the role of nutrition in production, microbiological control of food as well as the recovery of patients with different infections. In these seminars, students are more motivated with the content of the discipline and are willing to research on the importance of microbiology for the nutritionist. [...] they present seminars and by presenting orally they are training the exercise of communication.*

Among the specific skills and abilities, "developing and implementing education and research methods, techniques and knowledge" was the most easily developed, and identified by 44% of professors; "managing food and nutrition units" presented the greatest difficulty to be developed, being identified by only 5% of professors. Because it is a specifically developed skill in disciplines such as "Management of Food and Nutrition Units" and "Supervised Internship", the non-identification of most professors is understandable.

In the 2009 evaluation, there has been only the development of more general skills and abilities. Comparing those results with the 2011 evaluation, we found that in the second assessment, 56% (10) of professors detailed best the way to develop skills through their disciplines, regardless of whether or not the professor changed. This result was considered positive by the authors, for indicating the possibility of professors having improved the understanding of the concept of "skills" and how they work the discipline from the perspective of developing them.

To demonstrate this evolution by the professor, the following example is quite instructive, because it is the evaluation of discipline that remained with *professor 16* since 2009. At that time, he formed the skills assessed by their discipline as follows:

1. *"Learn to learn".*
2. *"Learn to communicate."*
3. *"Knowing how to act creatively and find ways to deal with new situations."*
4. *"Knowing how to work in a team."*

Justification: "One of the elements of evaluation of the discipline is a group project in which students need to prepare a work report along the lines of a scientific research, enabling us to discover the relationship between the discipline I teach and Nutrition".

In 2011, he interpreted the opportunities to develop skills through his discipline in a much clearer and more structured way, as can be seen in the transcript below:

1. *"Learn to learn". The understanding of some theoretical results and its application requires the understanding of previous items. By recalling these items, I try to make the students themselves apply the results without my direct explanation of the matter."*
2. *"Learn to communicate: Students constantly need to answer questions or solve exercises on the blackboard, having to provide justification."*
3. *"Knowing how to act creatively and find ways of dealing with new situations: in the hypothesis testing part, when learning a new test statistic, I don't solve examples and instead challenge students to solve an exercise that I choose."*
4. *"Knowing how to work in a team: At the end of the semester, students present a similar work report similar to a scientific research, performed in a group. "*

The change of focus for the development of skills and abilities implies change of attitude by the institution and the professor, having as an obstacle the difficulty of professors to understand what is really a particular skill, and even more about how to help develop it.[6] The results show the evolution of some of the professors to learn, on their own initiative, how to work the skills and abilities to promote professional education.

Identification of the teaching-learning methodologies used

Guidelines guiding new curricula indicate the need for changes towards educating an active student in the learning process. In this sense, professor and student should discuss the knowledge, investigate their assumptions and rebuild it continually in their professional practices. However, the most active forms of teaching and learning remain a challenge for the professor, particularly in the health area, which generally received no teaching qualification to perform the teaching function.

In the 2011 survey, 56% of the 18 professors stated that *the discipline is partially developed in the form of systematized content delivery by the professor and presents a part in which students develop more active forms of learning*. The *transmission of contents* was identified by 22% of professors. *The use of more active forms in the construction of knowledge* was indicated by only 11% of professors and 11% did not respond.

Of the four professors who said they use *transmission of contents* as a teaching-learning strategy, three responded similarly in 2009. However, the *professor 33* admitted: "I still haven't developed another strategy to change that." This may reveal a desire to include active methodologies in their pedagogical actions.

There is a great diversity among professors as to how to interpret the proposal to introduce active methods of teaching and learning. In the medicine and nursing programs of UFF - Fluminense Federal University,[7] there was the understanding of active teaching methodologies, among the surveyed professors, such as: tutoring or preceptorship in fieldwork, facilitating learning strategy by facilitating the professor-student link and the practice of interdisciplinarity; the indication of more radical strategies such as extinction of disciplines and use only of hands-on lessons, because in the opinion of this professor, the theory can be learnt in books; criticism to the simulation of ideal situations for the development of hands-on lessons, because in reality the problem to be solved is complex and not shown so clearly, and finally the use in class of strategies that stimulate research and knowledge construction instead of using handouts and slides prepared by the professor.

In the 2011 survey, the two professors who reported using *more active forms in the construction of knowledge* justified their answer be demonstrating what they understand as active methodologies, as can be seen in the professors testimonial below.

> *The materials produced are jointly developed between professors and students (educational materials for schools, among others) and the care activities of are developed, at certain times, only by the professional, at other times, jointly between professionals and students (professor 34).*

Students are encouraged all the time to read, observe, talk, organize, construct and present (professor 26).

Professors 34 and 26 did not give these disciplines in 2009, but at that time, those responsible for these disciplines also reported using *more active forms in the construction of knowledge*, which may indicate that the summary and the goal of the discipline contributed significantly for the selection of the teaching-learning methodologies to be used.

The articulation of theory and practice of the professional nutritionist

In this group of 18 professors, articulating theory and professional practice was not a challenge; 89% of professors stated that during the development of their discipline this articulation occurs, as shown below, by means of the examples presented.

In hands-on lessons, students can associate the theoretical content with the professional practice through dynamic activities and research of parasites in foods brought by students. In addition, during the preparation and presentation of seminars, students are invited to discuss and research on specific topics relating to the work life and the discipline, such as outbreaks of parasitic disease through diet or parasites transmitted by consumption of meat and sausages and their prophylactic measures (professor 23).

I try to correlate the basic knowledge of physiology with situations that may be experienced in the future. [...] For example: carbohydrate intake → hyperglycemia → insulin → diabetes." (professor 33).

Professor 23, already in 2009, admitted the link between theory and practice in their discipline, but the example given on that occasion was far simpler: "It was possible to develop a number of hands-on lessons during the semester, as well as two seminars and two workshops on health education." *Professor 33* believed to be unable to make this connection in 2009, which could mean a breakthrough in the direction advocated by the DCN.

The way to interpret the relationship between theory and practice is very different among professors. When searching on this integration in undergraduate programs of Nutrition in Curitiba, but specifically in relation to the Diet Therapy discipline, Paraná[8] found as the most frequent conception the one that provides a firm prior theoretical training as a guarantee of a satisfactory practice, which may indicate that, in the perception of professors, the practice is the time to apply the theory.

In our survey, *professor 34*, by teaching classes in a hands-on discipline, believes that this interaction occurs all the time:

> *[...] since it is an internship discipline and this demands recovering, strengthening, expanding and discussing various theoretical concepts. The discussions held about policies and food and nutrition programs developed in the discipline of public health are covered, as well as the contents of nutrition and dietetics, nutritional assessment and nutritional education. (professor 34).*

When discussing the theory-practice integration, also in the internship discipline, professors of the Social Work program at the Rio Grande do Norte State University indicated this to be a moment to enhance discussions about this relationship, as they consider this to be *a space of unity, for enabling a practice based on a theory in confrontation with reality in a dialectical relationship that interrelates them, recreating them in every day life*.[9] However, they emphasize that in order to accomplish this potential, the professor supervision during the internship activity is essential for bringing a reflection on the theory-practice integration to the center of the vocational training.

Integration between the contents of different disciplines

Only *professor 22* revealed not seeing opportunities to promote the integration of contents from different disciplines and justifies it in terms of the location of their discipline in the curriculum. This problem was pointed out by him since the 2009 survey (this discipline remains with the same professor) and, from his point of view, obligates him to "devote part of their workload to topics that should have already been addressed", a reason that makes the integration of contents difficult.

The division of knowledge into disciplines is a historic construction, and in training courses for health professionals, the effects of this strategy on the egress profile were already discussed by hindering the integration between basic and vocational education, promoting the education of professionals unprepared for general attention and inducing an early specialized vocational training. The proposal to integrate the contents of the different disciplines that make up the undergraduate degree in Nutrition, described in their Pedagogical Project, intended to mitigate and, if possible, to overcome these difficulties.

We agree with other authors[10] when they claim that only if we overcome the boundaries between disciplines and articulate the processes of teaching-learning to work and research, by means of an inter and transdisciplinary approach to the construction of knowledge, it will be possible to educate generalist professionals, endowed with a humanistic vision and prepared to provide continuous and resolutive care to people.

The difficulty exposed by *professor 22* reflects, in part, the lack of integration among professors of different departments that offer disciplines for the program. Those responsible for managing the program, especially at a time of change, need to manage daily disputes and conflicts, which makes this process rather complex and requires the professor in an administrative position a qualification that they do not normally have.[11]

But it also reflects the difficulty of the entire faculty to overcome the classical curriculum structure of health professional education programs where the basic cycle is disentailed from the professional; disciplines are fragmented and unable to properly use the related contents between them; and the disciplines dealing with the biological aspects and processes of technical intervention are those that receive most attention from the academic community, to the detriment of those who propose ideas and actions in the field of ethics, humanities and social sciences.[10]

Integration between education, research and extension

The DCN[2] highlight the importance of this integration in article 9:

> *The Undergraduate Program in Nutrition must have a pedagogical project, built collectively, centered on the student as a learning subject and supported on the professor as facilitator and mediator of the teaching-learning process. This pedagogical project will seek full and adequate training of the student through an articulation between education, research and extension/assistance.*

However, integrating the teaching activities with activities of research and, particularly, extension, was not so easy for professors of the Nutrition program. In 2011, 50% said that they could not promote such integration; 33% only with the research; and only *professor 34* (5%) integrates the teaching activities with research and extension.

The latter is a professor who teaches a class in the disciplines of integrated practice. This discipline develops outside the traditional classroom space, is coordinated by a group of four professors in different areas of nutrition and aims to bring the student closer to a professional practice since the beginning of the program, through observational and research activities, in addition to discussing texts on the subject.

However, in 2009, professors who were responsible for the discipline given by *professor 34* at that time did not evaluate the possibility of integrating teaching-research-extension in the same

way. There were other professors and one of them said that in the initial phase of the program, "students still do not have the theoretical nor the practical knowledge to integrate the activities of research and extension." The other showed only future possibilities through an extension project that was under construction with the nutritionist of the visited unit.

Unlike what was observed in the section on the use of active teaching-learning methods, the description and the goal of the discipline, in this case, have not helped to implement the change indicated in the DCN. This may be because the requirements to develop research and extension projects are still higher than those for improvements in teaching methodologies. They require coping with political and bureaucratic issues to obtain financial and infrastructure resources to enable operationalizing the proposed projects and the formation and maintenance of work groups with well defined goals.

As for the professors who saw the possibility of integrating educational activities only with research activities, the responses were similar to the 2009 evaluation. Only *professor 33*, who at that time did not identify this possibility, changed his mind, because though he still recognizes the presence of certain limits for such integration to occur, he can already see possibilities to perform it, as can be seen in his statement below.

> *This aspect is restricted to the transmission of some results of research projects involving restricted diets and tryptophan supplementation and essential fatty acids in the development of the nervous system (professor 33).*

Among the professors who said they could not promote this integration, only three provided a justification, as described below.

> *I believe that this integration occurs in specific disciplines (professor 22).*

> *I started this year and did not have this opportunity yet, but I believe it is possible (professor 14).*

> *There was still no concrete possibility, but the lecture given at the health center could be an extension action. However, students were so motivated after completion of the program that many seek to enroll in tutoring, research initiation or volunteer internships (professor 07).*

This group includes professors from departments outside the School of Nutrition, of disciplines that are not specific to this program, and newly hired professors, which may have contributed to this difficulty.

Final remarks

Overall, when comparing the results of the 2009 reviews with those of 2011, we observed that there are proposals of the DCN, members of the Nutrition PPC[4], which are easier to perform than others. We recorded in 2011 the same ease found in 2009 to integrate content from different disciplines, theory and practice in the presentation of contents and teaching activities with research activities.

However, there was a reduction in the number of professors who reported deploying active teaching-learning methods. We observed that two professors that in 2009 reported using *more active forms in the construction of knowledge*, in the 2011 assessment were more cautious in their assessment and opted for the intermediate form, according to which *the discipline is developed partially in the form of content delivery systematized by the professor and has a part in which students develop more active forms of learning*. In 2009, deploying active teaching-learning methods had already been identified as one of the most challenging proposals.

Assessing the skills formed during the development of the discipline was also highlighted as a difficulty in the 2009 evaluation. However, in 2011, 56% of professors have advanced in the understanding of this practice and recorded more clearly the contribution of their discipline in training the skills needed for the performance of the nutritionist, describing in more detail the pedagogical activities used for this purpose.

It is noteworthy that curricular reforms are fields of conflicts of interest and tensions, where often educational practices take on a conservative role, of maintaining what is already established, since the change proposals can cause perplexity, anxiety and generate paralysis, instead of the desired transformation. Apparently, professors who showed changes in their practices toward what is advocated by the DCN, did it by private initiative and effort, as there was no record of formal professor training activities during the period studied.

When asking professors to submit suggestions at the end of the questionnaire, in 2011, there were requests for specific adjustments in disciplines such as its workload and time and day of the week in which the discipline is offered, and also broader proposals, such as evaluating the relevance and workload of all disciplines, since part of the faculty considers the total workload of the program too extensive.

In the 2009 evaluation, in addition to occasional adjustments, there was a very recurrent suggestion of holding more meetings to resolve issues and doubts still existing, which are natural while implementing a new curriculum in a program with professors from twenty different

departments. The problems are not all solved yet, but this troubled scenario seems to have unclouded. At that time, in 2009, two curricula were in place concurrently, i.e., one fading away and another being deployed, and it was challenging for all faculty and those responsible for the program management.

We've considered professors allies in the curriculum reform process, because, in line with Cruz,[12] we recognize the challenge they face when trying to run their activities among the different common referrals in a period of implementation of a reform, in addition to the fact that professors need to learn, hands-on, so that any reform can work. In this sense, the role of the professor is strategic since they are the ones that will reflect the official idea to the context of practice, making interpretations and criticism, producing and organizing knowledge, selecting methods and techniques for developing the pedagogical activity with their teaching group.

However, it is important to consider that the success of the reform process is also conditioned to the way the management bodies of a higher educational institution exert their political will, since the professor's action is necessarily contextualized by institutionalizing the reform.[13] The change proposals presented in the PPC may face great difficulty to be accepted and executed if the institutional conditions are not favorable - that is, if there are no conditions of infrastructure, support to professors pedagogical update, to the debate that will allow for greater understanding of these proposals.

Acknowledgments

To the professors who participated in the survey, for the time devoted to responding to our questions.

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Received: 05/30/2013
Revised: 06/7/2013
Approved: 09/6/2013