Management of the Faculty based on Competencies: A proposal for the Department of Sciences, Technology and Health

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Summary

In the present education which considers that teaching should be based on competence, an investigation into the problems of teaching assignment in academic departments was carried out at Regional Multidisciplinary Faculty of Carazo in National Autonomous University of Nicaragua (UNAN-MANAGUA), taking as the main criterion the teacher profile and skills that the teacher should have to teach a subject.

To find the attributes of those competencies, the investigation was initiated by applying a questionnaire to the department managers and coordinators of the careers, in which it questions the criteria taken into account to make the educational placement and core competencies that a teacher should have. It has also expanded this research to teachers on satisfaction with the subjects they teach. As result, the teacher must have skills: knowledge, mastery and satisfaction of their subject.

Introduction

The academic assignation is one of the most complex and sensitive activities, within educational institutions of higher education level. There are administrative criteria in normative documents regulating educational placement, mainly in areas such as number of compulsory teaching hours, to help ensure an organizational efficiency. However, in many cases it is often the underestimated aspects that are more related to the motivation and satisfaction of teaching about the essence of the functions performed, specifically in the satisfaction teachers have with the subjects taught, which depends heavily on capabilities or competencies that they possess about it. This is directly related to organizational effectiveness, since it determines the degree of satisfaction of the user of our system: the student.

The problem of academic assignation in the current departments in our faculty is in the center of the search for that elusive balance between the collective and individual interests of the institution. It is a determining element for the compliance of the relationship "gain-

gain" that becomes more complex when we consider to be sought compliance of the goals, not only with the organization but teachers and students in a harmonious and synergistic balance, with the organization seen as an open system struggling to counteract the entropic processes.

While it is certainly true that a teacher is assigned to a department, and within this field the area of knowledge in which he operates is quite definite, it is necessary to consider both the process leading to the induction and establishment of a novel teacher as the self-improvement and updating of expert teachers in response to changes generated both internally and externally to the organization.

Problem Statement

At the level of university education, it is undeniable that most professionals who are integrated into teaching processes become university professors without necessarily being teachers. That is, many academics have had no teacher training. Thus we find lawyers forming lawyers, medical training doctors, engineers forming engineers, etc. In many universities there is an induction process for new teachers and the possibilities of an ongoing program of teacher training.

But beyond this issue, yet when it comes to experienced teachers, a constant problem that revolves around the performance of teachers emerges, as being the university an open organization, whose input and output is knowledge, its operation is conditioned by various and changing internal (curricular changes, assignment of new classes) and external (progress in different areas of knowledge) factors. In both cases and similar, the performance of teachers should be adequate enough to ensure the quality of teaching and learning and avoid counterproductive effects on student learning.

This approach arises questions such as:

What kind of subjects is convenient to assign a novel teacher?

Is it appropriate for a teacher to impart a subject without having first taught the preceding or required subjects?

In the performance of teachers, is it more important generalization or specialization?

They are just some questions that are poorly addressed theoretically, but in practice represent existential issues. Therefore, appropriate action must be taken in every moment of their educational performance, always with the main objective the quality of the teaching-learning process.

Hence, we consider it necessary to carry out a study, with the participation of key actors in the process (students, teachers, coordinators and department directors) that would allow us to make a proposal in order to create the most suitable conditions for proper decision-making to add or update teachers in their university teaching career.

Motivation

To achieve a goal, people must have sufficient activation energy and a clear objective and the ability and willingness to use that energy for a long enough period of time to reach their goal.

The most important element of motivation lies in how we feel emotionally in a given situation. There are two types of motivation: intrinsic and extrinsic.

Intrinsic Motivation

It refers to the personal satisfaction that represents to successfully face the task itself. It is evident when an individual performs an activity for the sheer joy of realizing it, with no one having an obvious intention to give any external incentive.

Extrinsic Motivation

They depend on what others say or do about a student's performance or what he gets tangibly from their learning.

If a teacher is not intrinsically motivated to teach a subject, the result in students might not be the best in the teaching-learning process, regardless the economic factor is an aspect of extrinsic motivation[1].

Command of the subject

When a teacher teaches a course he likes and has enough domains because it is their area of expertise, they will surely be motivated, for this reason, teachers will impart their classes more motivated and more clearly; this is transmitted to students, therefore, students will be motivated and will better assimilate knowledge.

According to Pereda Barrios:

> The relationship between teacher and student should be a liberating relationship, which occurs when momentous and useful knowledge and tools for life are shared; a teacher can pass on to their students a love for the subject they teach, love for research, for work, for the richness of relationships of others, for life and especially for the discovery and growing of their own.

We teachers need to change the traditional way of teaching. The way it is done now might derive from the way we were taught as well. It is also important the fact of being satisfied with the subject we teach.

Alvarez (2011, p. 101) says about it:

> Education based on performance, is not only focused on the students, but also on the teaching role. It demands teachers to modify their teaching, his way of designing activities and strategies, their planning not as a mere administrative requirement, but as a reference on how to conduct the student in achieving the objectives, purposes and the development of their skills and knowledge, so enabling them to confront and respond to certain problems present throughout his life.

Competencies

The concept of *competence* is different, depending on the perspective from which you look or the emphasis to be granted to one or another element, but the most widespread and accepted is *"to know how to do in a context".* The *"know-how"* far from understood as "doing", requires knowledge (theoretical and practical), affection, commitment, cooperation and enforcement, all of which is expressed in performance.

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[1] Based on the investigations done with engineers and accountants, Frederick Herzberg built in the fifties the two factors of motivation model. He asked his subjects to remember an event in their jobs they felt particularly happy with, and an event they felt particularly unhappy with. They asked them to describe the conditions that favored these sensations. Herzbeg discovered the employees to different kind of conditions satisfactions and insatisfactions. This is, if a sensation of achievement induced the sensation of accomplishment, the absence of achievement rarely appeared as a caused of insatisfaction, which was attributed, rather to some other argument, like companies policies.

According to Sladogna (2000):

> The competencies are complex capacities that have different degrees of integration and are manifested in a variety of situations in the various areas of personal and social human life. They are expressions of different degrees of personal development and active participation in social processes. The author adds that all competition is a synthesis of the experiences that the subject has built within the framework of its wide living environment, past and present.

Masseilot (2000) states that the concept of *competence* is elastic and flexible, aimed at bridging the gap between mental and manual labor.

Teachers must have different skills and general competencies that every one of them should develop, and the specific skills that relate to their area of expertise. This allows a teacher to be qualified to teach a subject.

Ferro Marrona and Lavados Montes (2006, p. 9) present us in their study that *the skills are the concatenation of knowledge, not only pragmatic and oriented to production, but those who articulate a conception of being, knowledge, know-how, of how to live*. This means that faced with a situation, which has the competence to act has the requisite knowledge and ability to adapt to specific conditions; it has the ability to timely and effective intervention and is also imbued with the values, allowing you to take attitudes consistent with its principles and values.

Ferro Marrona and Lavados Montes, keep saying that:

> ... in literature, different categorization of competences are formulated. And they argue that the most accepted considers three categories: 1) basic skills, also called Instrumental, which are those associated with fundamental knowledge normally acquired in general education and allow entry to work, such as the ability for reading-writing, oral communication, and computation. They claim that not learning in higher education, except for some as basic software management. 2) Generic skills, also known as Transverse, Intermediate, Generative or General, that relate to the behaviors and attitudes specific to different areas of production, such as the ability to work in team work, namely planning, negotiating skills, etc. 3) The Specialized, specific or technical skills, dealing with technical aspects directly related to the occupation and are not easily transferable to other work, such as contexts: the operation of specialized machinery, the development of infrastructure projects.

In this sense, Mertinet, Raynond and Gauthier (2004, p. 26) indicate that:

> (...), the benchmark of competence of the teaching profession is structured around twelve professional skills. To practice, the teacher should have developed the skill set to different degrees of control, depending on whether it is a beginner or more experienced.

> Thus, the teacher´s training, trying to develop multiple skills related to various functions of the profession, can be considered a multipurpose training. Indeed, the design of teaching-learning situations, guide these activities to a group of students, value their learning thereof adapt teaching to individual needs, manage a group-class or even work collaboratively with school staff, parents and stakeholders and the commitment to their professional development, which needs to resort to a wide range of skills that are exercised in different professional situations.

Teacher Competences

Zabalsa (2011), explains clearly and precisely, the importance of studying and teaching skills. It helps us to differentiate them from the competences that are to train students in the processes of teaching and learning:

> [...] And that's where teaching skills appear as the battery of knowledge, skills and attitudes that enable us to the good performance of the teaching profession. And if that makes me a competent

chemist is what I know about chemistry, what I investigated about chemestry, which updates me on chemistry, the conferences which I attend on chemistry, etc.; what will make me competent in teaching chemistry will be what education is, which I investigated on education (teaching of chemistry, of course), which updates me about teaching, conferences that I attend on education, etc. There is no more. It's that simple.

Therefore, the issue of competence is on the top of the wave of the whole debate on university education. The powers are present in the discourse on the "new higher education" and how it is expected that we form our students, and the redefinition of the figure and the role to be performed by the university faculty. That is, the competencies involve us both in relation to how we should be (competent teachers and university professors) and in relation to what we should do (educate our students in professionally valuable skills).

Zabalsa (2011) states that the debate on this point, one of the many in which we are engaged in the process of convergence, will not differ significantly in either direction or the tone of the general debate on what it is and what should be Higher Education. He poses the following questions: What does it mean to speak of a "competent" Professor? On what skills the professional profile of university teachers is based? Who will define what those skills are? What process will be more suitable for those whose wish to exercise that function acquire the marked skills? How will you evaluate, accredit and certify your domain? He concludes that there are many issues of great interest to those who are already teachers and, even more, for those seeking to be in the future.

The training of university novel faculty

The rapid changes taking place in the university demands from teachers more flexibility, adaptation and constant learning. In this context, it makes more sense than ever, before the formation of university professors and novice teachers.

Hernández de la Torre (2006, p. 6), expresses us, that a good strategy for teacher education in general, but especially new teachers may be the teamwork that is one of the basic skill requirements for all university professor, acquiring abilities and skills of the most experienced.

The paradigm of university collaboration is based on three pillars:

1. The workplace as an organization.

2. The theory of curriculum and educational change.

3. The theory of teachers and their training.

Similarly, the assumptions on which this model is based are suitable for the development of the tutorial function among teachers in higher education, with the following:

- Acceptance of the idea as the basic unit of exchange and as a space for teacher training.

- Cultural character of the University as an organization, since the change and renewal of professional teachers goes through the construction of the professional culture as a process to get it.

- Change of values and standards focused on interdependence, openness, community, cooperation, autonomy and self-criticism.

- Belief that collaboration is an ideological commitment to a new way of interpreting the relationship between University and society by focusing on institutional practices and relationships across the curriculum, teaching and learning.

- Collaboration is a process that is reached through planning, self-review and self-assessment, being decisive criteria, the participation of teachers, their involvement and commitment.

- The emphasis on the recognition of human resources of the organization, as they are the key element to its renewal and improvement based on respect, recognition and capacity of teachers and their collaborative autonomy and confidence to learn from each other.

All these preconceptions contribute to a new idea of the work in university departments as a group idea that works in coordination and that it needs training for its implementation, since the idea of curriculum development is not static, but is continually renewing and adapted with the times and moments of social development, in what is called relationship and coordination between the university and society. This collaboration between teachers is necessary for the involvement and commitment that implies teamwork to serve all students.

Investigation methodology

Gonzalez and Hernandez (2003; cited by Murillo and Martínez, 2010) has taken the model of ethnographic research method. For this reason, the study describes in detail situations, events, people, interactions and behaviors that are observable. It incorporates what participants say, their experiences, attitudes, beliefs, thoughts and reflections, as are expressed by them.

The context of the study is Regional Multidisciplinary Faculty of Carazo, with a student population of just over three thousand students, so the study is considered a *micro-ethnography*, the results, although they cannot be generalized, they can serve as a starting point for larger studies with different approaches, to make general contributions to this problem, although the principle of this approach suggests that *"the only generalization that exists is that there is no generalization".*

The study is cross-sectional, since it is done at a certain time of the investigated group. Although ethnographic studies that are essentially qualitative and mostly use techniques such as in-depth interviews and personal documents, the study is complemented by the implementation of a survey.

A particular feature of this study is that the researcher is part of the own social context studied, so the challenge of distinguishing and integrating insight and interpretation of the investigator is assumed.

Moreover, although it is said that this method seeks to understand and interpret reality, to solve practical problems, it is also clear that in the field of educational research and ethnography, should suggest alternatives and practices that lead to better educational intent.

Among the relevant aspects found in the theory that justifies the use of this methodology, they attract your attention issues such as the hidden curriculum, not only from the point of view of development, but in this case, from planning in the allocation teaching load.

According to León and Montero (in Murillo and Martinez, 2010:9), the truly indispensable, as the

starting point of an ethnography, is to formulate a good question, determine the objectives of the research and choose the right scope thereof; premises that, from our point of view, are fulfilled and provided the basis to guide the rest of the research process.

Analysis of Results

As participant observers of this research, I consider it useful to refer to some patterns of behavior and any events that, in the context of the subject matter, have manifested in different spaces of interaction and communication in the field of our teaching department. It is noteworthy that the situations mentioned below have been improved considerably in recent years, although as part of the history of our context it is important to take into account:

- Prior to the start of each semester, an enlarged meeting or teaching staff is done at the departmental level, which among other agenda points contains the formalization of the teaching workload. On several occasions, some teachers have expressed dissatisfaction with some assigned disciplines, particularly when subjects they have not taught before, and above all, because they feel they have not been informed in a timely manner for preparation, even, there have been cases of teachers who give up one or more of its subjects assigned during a semester. It also provides case where two teachers agree to make an application to the address of the department to exchange any assigned discipline, though one of them, in the end lost in income, due to differences in the amounts of hours of courses.

- Another phenomenon worth mentioning is that of teachers who within their profile have a particularly strong component or scientific and technical guidance that when subjects are not taught in this profile, they assume, plan and develop them, but in repeated points of this process succumb to the temptation -in a consciously or unconsciously way- to relate the subject with aspects of their strong profile.

- An informant group that cannot be left out in this study is students who have a strong capacity of perception about the adequacy of the allocation of teachers to a particular discipline. In conversations with students, they have said throughout their career, they have been in situations where they would prefer to be assigned to another teacher by the profile of the subject.

- In any case, a strategy that has helped in large part to solve situations of not suitable subjects is the group of subjects, which often a not experienced teacher (on that subject) is supported by the experienced teacher, achieving in largely to overcome the difficulties.

- Another strategy that has contributed to the support of teachers in such situations is the creation of records of subjects in which the teacher can find references both content and methodology for the development of new subjects.

Conclusions

- In analyzing the allocation model of teaching workload at FAREM-CARAZO, we conclude that it is guided by objective criteria of financial administrative-type, which is regulated in normative documents. However, the academic aspects to this process have an empirical nature and are based on the judgment and experience of the career coordinators.

- In the Department of Sciences, Technology and Health at FAREM-CARAZO, as in the

other two remaining departments of the faculty, evaluation is made to the performance of teachers in general aspects of the factors of teaching, research and extension. However, specific issues relating to the responsibilities of teachers in terms of making decisions about their teaching workload, are not formally documented, but are the product of collective knowledge coexistence throughout the years of work.

- An instrument was proposed to the career coordinators on determining general and specific teaching skills that enabled validation, improvement and obtaining additional information on the difficulties inherent in the problem of allocation of teaching workload.

- Inputs for the development of a baseline proposal for the creation of an induction program development and teaching career at FAREM-CARAZO were generated.

- Career coordinators make judgments of definition of teacher competencies based on their experience in interaction with them, with insufficient information or little systematic evidence of teachers 'record.

- When contrasting the skill profiles of teachers with the requirement profiles of the subject programs, there is inconsistency in many cases, resulting in both profiles not matching.

- It is necessary to train both teachers and career coordinators and department head, in determining the competencies required in course programs.

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