Metodología para la Programación Académica, Universidad Veracruzana

Methodology for the Academic Programming, University of Veracruz

Martha Lilia León Noris
Universidad Veracruzana
mleon@uv.mx

María del Refugio Salas Ortega
Universidad Veracruzana
resalas@uv.mx

Resumen

Desde hace más de diez años se incorporó el modelo educativo institucional en la Universidad Veracruzana, sin embargo, siguen sin concretarse sus objetivos dentro del quehacer universitario. En el periodo 2010-2011 se implementó una estrategia llamada Programación Académica con la finalidad de favorecer la trayectoria escolar y el proceso de gestión administrativa de las entidades académicas, para lo cual fue diseñada una metodología socializada en la comunidad académica y aplicada como un ejercicio en el programa de Odontología campus Veracruz y en programas de Ingeniería campus Poza Rica-Tuxpan.

Los resultados de dichos programas permitieron realizar el diagnóstico situacional de los alumnos y generar una oferta con base en sus necesidades, para después aplicarlo en el resto de las instituciones educativas.

Palabras clave: Programación académica, trayectoria escolar, metodología.

Abstract

For more than ten years the institutional educational model was incorporated in the University of Veracruz, however, still remains without defining its objectives within the University work. In the period 2010-2011 a strategy called Academic Programming was implemented in order to promote the school career and the process of administrative

management of academic institutions, for which was designed a methodology socialized in the academic community and applied as an exercise in the Dentistry program campus Veracruz and Poza Rica-Tuxpan campus Engineering programs. The results of these programs allowed the Situational diagnosis of the students and generated an offer based on their needs, to later on, apply it to the rest of the educational institutions.

Keywords: Academic programming, school history, methodology.

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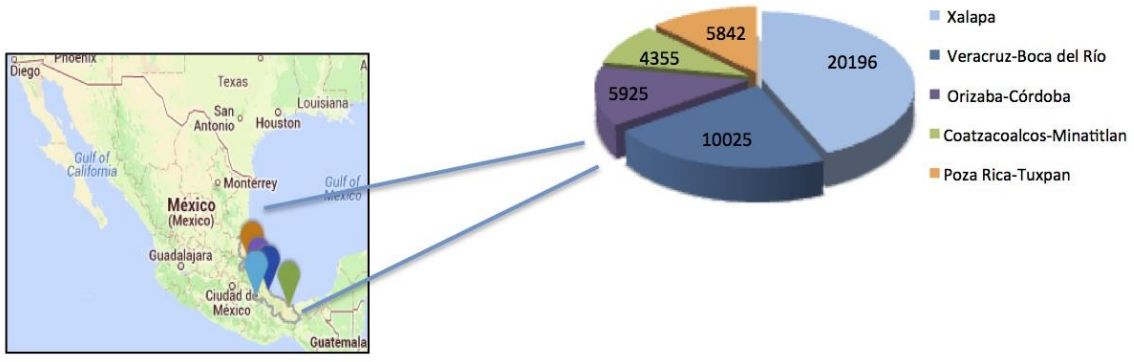
Introducción

Development

Mexico is a Latin American country ever-changing social, political and economic matters, whose main challenge is education reform, which seeks to increase the quality of education and reduce social inequality. However, to solve the first, you must identify the strengths and weaknesses of its educational system. (Federal Government of Mexico). The current scenario that higher education faces has resulted in the establishment of policies aimed at improving their quality, optimize the use of resources and strengthen the substantive functions of academic institutions through programs that have effect in society. In Mexico, for more than fifteen years, higher education has undergone changes as a result of the international pedagogical approach, which recognizes the responsibilities as a paradigm over wich many of the educational programs now rest from entry level to the top level. In 2009 UNESCO pointed out, for example, that higher education should produce citizens with skills, committed and equipped with ethical principles (UNESCO, 2009). On the other hand, Montaño López (2013), based on the final report of the project Tuning Latin America 2011-2013, says that there are some competencies which in no way should be missing on the curricular profile of future professionals. Different authors have done their research based on this paradigm, for example, Perrenoud and Tobon. Higher education institutions have modified their curricular structures and consequently redefined its processes,

organization, and management policies to adopt a model of flexible academic organization with a focus on training by competencies. To achieve competitiveness, the University of Veracruz was given the task of proposing its own curricular model, which seeks to research and teaching activities to exalt the professional competencies that the society requires. Public institution that has served the society over seventy years, the University of Veracruz has five campuses throughout the State and has 192 educational offerings at levels of superior technical, undergraduate and graduate, with a total of 304 educational programs, targeting 57% of them in Bachelor's degree (University of Veracruz, 2014). According to the report of April 2014 delivered to the Federation, the University has a total enrollment of 55 206 students, of whom 48 817 belong to school programs and 6 389 are served in open education systems (University of Veracruz 2014). Total school enrollment, 2 074 belong to postgraduate level, 400 to the University higher technical level and the rest to Bachelor's degree (46 343), distributed in five campuses, as shown in Figure 1. Each campus has a different infrastructure, financial and human resources, however, in its genre, this Public University of the interior of the Republic is the one with higher demand due to its extensive educational offerings. The programs are concentrated mostly on the campus of Xalapa and Veracruz-Boca del Rio, who joined the 24 research institutes and the Intercultural University of Veracruz (UVI), being the latter the one that serves rural and indigenous zones of high marginalization.

There are six academic areas: Humanities, Technical, Economic and Administrative Sciences, Health Sciences Biological-Agricultural and Arts. (Universidad Veracruzana, 2014)



Source: Quarterly Report April 2014 for enrollment in the federation UV.a

Figure No 1: Distribution of tuition schooled by campus

The proposal of its current model was based on the diversification of educational experiences (subjects), ie the student to achieve their learning inside and outside the classroom. On the other hand, the curricular flexibility represents the ability of colleges to respond quickly to the needs of society. Also emphasizes a comprehensive education that develops students several areas: human, intellectual, social and professional. Minimum time was set, one standard and one maximum for the student could take the curriculum based on academic need (Beltrán Casanova, et al. 1999).

In 1999 was launched 12 undergraduate programs with centered model student learning. Gradually, other programs were incorporated into this scheme, all currently being organized under this institutional model.

Simultaneously, the tutoring program for students joined from intake to discharge through an assigned by the coordinator of the program academic tutor. Also within the administrative changes Integral University Information System (SIIU), which is software that is fed information, in this case the update is the responsibility of the secretary of each academic entity was incorporated.

This system can generate a large number of forms and reports to streamline administrative procedures and, above all, generate indicators such as failure rates, terminal efficiency, income, etc., all of them important to the institution.

Throughout the fourteen years since I began with the model achievements have been made in educational programs and in all its participants, but there are still operational problems, one being the organization of the supply of educational experiences (subjects) and the entire administrative apparatus that is responsible and whose mechanism has remained with the traditional approach and not based on the needs arising from the paths of students, a flexible approach than the current model promotes. This problem resulted in the retention of a third of the tuition, ie students with educational experiences not processed on the corresponding dates due to multiple situations, among which was the joint schedules. This situation was identified by the university community when integrating times to take in the immediate period and also with information obtained through mentoring.

Universidad Pontificia Bolivariana (2006) defines academic programming as an activity where academic activities are scheduled from identifying resource requirements; for the University of Northern Colombia (2012) is a record of all its courses both regular programs such as those offered by language schools, sporting and cultural. In short, it is a process of organization.

La Veracruzana University (2014), in an effort to address the concerns of the university community, generated this institutional, same strategy that is expressed as a strategy to operate and organize the activities of curriculum planning considering the resources available to each academic institution and, above all, the training needs of students as well as their school career.

This involves planning and organization skills to be typical of those responsible for educational programs, which are presented below each of the moments that make up this process.

Methodology

The methodology is conceived in a process comprised of four stages, each being called from the fruits and the actions taken. For application was necessary a series of meetings that began with the presentation of the methodology and required the participation of all administrative bodies, such as the Directorate General of School Administration, Human Resources, Finance Division, Addresses Academic Areas, planning, Directorate General of Academic Development coordinated by the Academic Secretary. Furthermore, academic staff and union leaders were conducted tours of duty for the five regions to sensitize the community, making it necessary to work on scheduled with officials and later with students sessions.

Parallel to these activities and collecting the experiences that had been implemented in communities to meet the schedule, a guide to academic programming was integrated and collegial state sessions curricular grids, key document for analyzing the trajectories of the students were integrated . Obtaining the information was in mass meetings, convened by the secretaries of faculty in each of its academic, in some cases by involving tutors so that grids each student noted the educational experiences studied, accredited disapproved and he

wanted to pursue in the next school year. In other cases, this information was obtained from school records of Integral University Information System (SIIU).

Then the elements of the academic program are noted:

I currently Balance between Demand and Projected Course Load

At this stage the analysis of the school trajectory of each student is performed and risk situations, graduation and retention, with the intention of identifying follow-up actions to the recorded cases are recorded. The secretary of the Faculty compares the offer of the previous corresponding period to that based on her changing needs of educational experiences, sections and schedules that require opening are identified. Moreover, as responsible as corresponding SIIU students, you can generate reports that enable you to validate and expand the information received.

Integrates with the above sections, credits and hours, same bank validates your budget. Later performs the movements of their academic staff to integrate the projection of charge according to their profile and number of hours yearly basis, meaning thereby a flexible load according to the model according to the need of students. (See Figure 2)

Source: Own, 2010

Figure No 2: Moment I Balance between Demand and Projected Course Load

Moment II Capital Management

With the projected load, the next step is to manage resources, starting with the financial aspect because if you exceed the bank of hours assigned is necessary to identify educational experiences that may be offered in intersemestrales periods based on the path and priority that favors the progress of students, following the guidelines established by the Directorate General of School Administration to thereby adjust the hours needed.

Importantly, this work should be done in computer programming, as some academic institutions offer more than an educational program and share their spaces and academics, which require to organize their resources to optimize them.

Furthermore, consideration should be given to students graduating next to those left behind and those who have traveled in the curriculum with minimal credit, to ensure their discharge.

Taking the load, the secretary performs the allocation of spaces (classrooms) and considering the historical schedules for later academic register at Integral University Information System.

In this system, the Secretary issued various shapes which can streamline administrative procedures, such as certificates, academic workload, schedules of students, among others.

It is noteworthy that some educational experiences can become vacant, ie without academic, since the holder may have a permit, commission and / or be disabling, allowing the Secretary move schedules temporarily seeking the benefit of the student . The goal is for your class schedule is continuous and decrease your time spent in school so you can perform other academic and / or personal activities.

With this, the secretary can now update your database, obtaining the offer II or potential supply. (See Fig.3)

Source: Own, 2010.

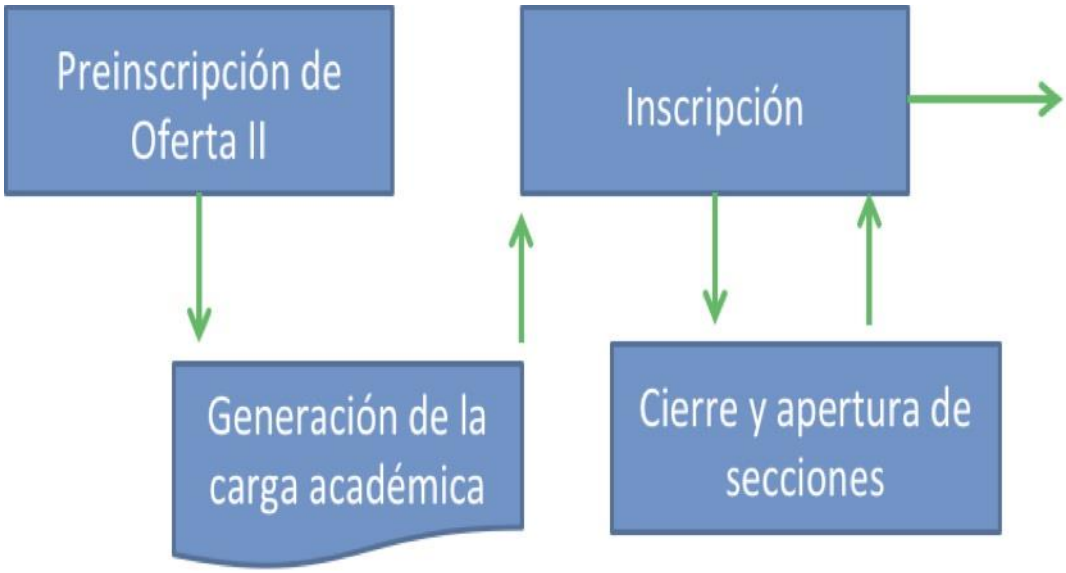
Figure No 3: Moment II Capital Management

Moment III Registration

The potential offer is issued in the last month of the current period for the registration of students in the next school year.

With the results, the secretary of the Faculty makes adjustments if any-in the system and issues the academic load.

On the date set by the school administration department enrollment of students is done; if the student fails any educational experience that is antecedent to another or if any section is not opened by the number of students who requests the Secretary makes opening another adjustment necessary for the course the student without affecting the hour bank nor its academic staff. (See fig.4)



Source: Own, 2010.

Figure No 4: Moment III Registration

Moment IV Operation Scheduled Offer

This is the time of operation of the academic program in which the adjustment of the academic staff based on the opening and closing sections is made.

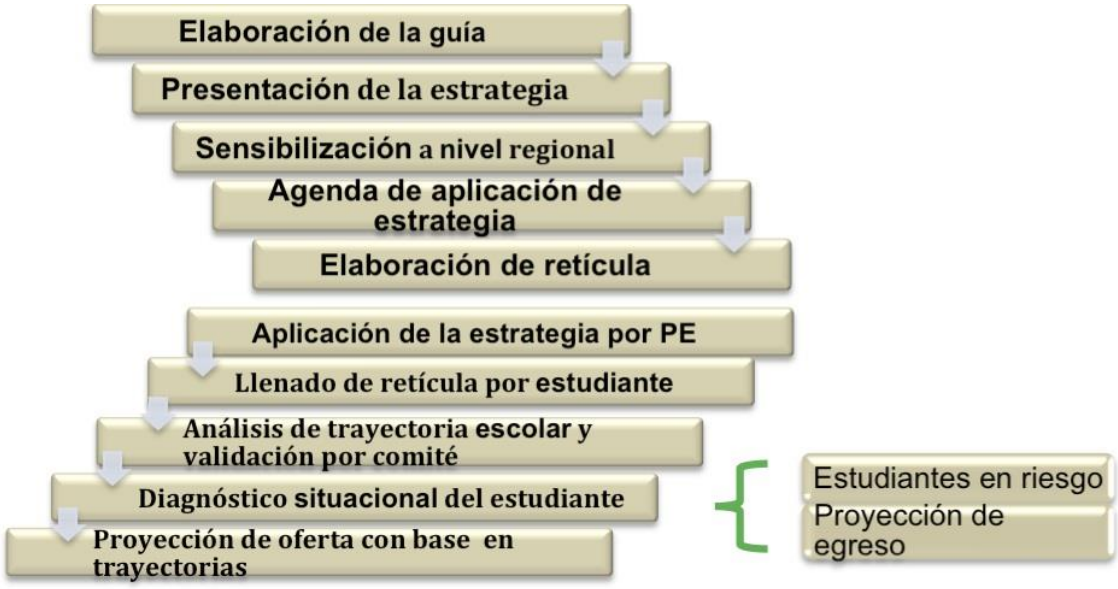
Opening said sections in principle are assigned to those academics having hours pending relocation and, of course, that meet the required profile. Failure to have the call academic internally (inside the Universidad Veracruzana) or at a time is emitted as are externally convened, on the dates established at institutional level for possible recruitment.

Later the information system is updated with the changes, so that from there the payroll and the start of classes is generated. (See Figure 5)

Source: Own, 2010.

Figure No. 5: Time IV Operation offer scheduled

Integrating represents four times to make the whole process to generate a flexible academic program according to the business model, as shown in Figure 6.



Source: Own, 2010.

No Figure 6: Diagram of the Methodology for Academic Programming

Results

To apply the above methodology, it had to implement several actions:

1. The development of a guide to academic programming, presenting the methodology to the campus to sensitize the university community.

2. In the construction of grids generated from the call that made the academic areas of their educational programs, were obtained 56 and 2 which were already in operation, totaling 58, which at that time corresponded the total undergraduate career choices.

3. It was considered necessary that every educational program appoint a committee of academic programming preferably composed tutoring coordinator, the student counselor, secretary and three academics, to conduct the process in the workshops implemented in each campus.

In July 2009 the stage of institutional implementation of the Academic Program, with awareness sessions began by presenting the strategy at all educational programs of the various university regions. To do plenary sessions were conducted in the presence of academics, representatives of generation, union delegates and officials from the region, with the intention that the methodology was fed back to participants based on their experiences.

Then the strategy was applied in the first educational programs considering some criteria such as tuition, academic staff and operating problems MEIF. The programs were: Surgeon Dentist in Veracuz region and the technical area (electrical mechanical engineering, chemical engineering, environmental engineering, petroleum engineering and electronic engineering and communications) in the region of Poza Rica. The work was done manually with formats designed in Excel, however, this exercise allowed today the process is performed with pre-register online through the student portal on the platform of the institution.

The implementation of the methodology yielded the following results in programs that worked:

Dental Surgeon Veracruz

The total enrollment in 2009 was 801 students and diagnosis of path 532. It was found that 181 had educational experiences in second inscription, 28 and 10 in the third entry in last chance, highlighting the high risks facing those made S08 enrollment by offering only two inscriptions statutorily 2008 students.

As at discharge, projecting 26 students who graduate in January 2011.

Poza Rica:

Electronic and Communications Engineering:

In 2009, total enrollment was 492 students, of which the school career of 219 (44.51%) were analyzed.

161 students were identified at risk with at least one educational experience and whose second entry fees were S02, S03, S04, S05, S06, S07, S08. In the latter there were 85 students with the highest risk as mentioned above, so its immediate referees to incorporate strategies to avoid channeling their school lower bodies suggested.

In the projection Exit 7 students for the period July 2010 and 10 were identified for the period of January 2011.

Mechanical Engineering-Electrical

173 students were analyzed from S02 to S08 tuition, identifying which of the 60 students of the latter tuition, 42 are in second entry and only 18 take a regular course. As graduate students are projected 23 to July 2010.

Environmental Engineering

Of a total of 194 189 students were analyzed, the results show that 69 students with tuition S08 and S09, 40 are in second inscription. Regarding the S04 to S07 plates, 52 of 66 students are at high risk.

Petroleum engineering

Program recently created in 2010 had an enrollment of 99 students, who just began their school career.

Chemical Engineering

We worked with the S05 fees, S06, S07, totaling 167 students, of whom 56 were identified on second and third inscription, being therefore at high risk students.

Based on the diagnosis (when I), the supply of educational experiences and the number of sections to meet the needs aperturar found in students and thus the academic load was generated.

Later, when II, the setting according to your hour bank, where programs of Mechanical and Electrical Engineering Dentistry identified those educational experiences that could be offered in the intersemestral without affecting the trajectory of the student was performed. Importantly, in the case of engineering, being in the same Faculty and completion work together, be able to identify areas of common educational experiences and internal mobility taking students to advance their agenda.

With this, the secretary was given the task of integrating all system to generate the registration process, manage eventual academic load and thus conclude the process of academic programming.

Conclusion

This work has focused on the methodology of the academic program, which ensures that the academic offerings adheres as closely as possible to the real needs of students and resources-human institution, financial and infrastructure are optimized.

Furthermore, this methodology:

- Streamlines the administrative process for the benefit of the academic community.

- Ensuring the registration and validation of school history in the system.

- Identifies leveling necessary remedial courses based on student performance.

Exercise on a campus programs Engineering and Dentistry campus Poza Rica Veracruz, identified academic risk having their students and their low efficiency, a situation that generated the academic work as of today is reflected in timely care school and better

academic planning supported by the resource management paths. This methodology, applied and acclaimed university forums, generated a degree of differentiated appropriation, which led to its implementation in all programs of the five campus of the Universidad Veracruzana.

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