

Análisis de trayectorias escolares de estudiantes de la licenciatura en geografía de la UAEMEX

Analysis of students school progress in b. sc in geography, UAEMEX

*Análise dos percursos escolares dos alunos da licenciatura em geografia
UAEMEX*

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Resumen

El estudio de trayectorias escolares permitió conocer diferentes dimensiones del trayecto que siguieron los estudiantes de una cohorte de la carrera de Licenciado en Geografía, de la Universidad Autónoma del Estado de México, como mecanismo alternativo de diagnóstico y evaluación, para la planeación del proceso de reestructuración de dicho programa. El objetivo del trabajo fue evaluar algunos indicadores de las trayectorias escolares de los estudiantes de la cohorte 2012-2017 de dicha Licenciatura, para ello se partió de los indicadores previos a su ingreso, como el promedio del bachillerato y los resultados del Exani II, así como la tasa de promoción, deserción, retención y aprobación en la trayectoria seguida hasta su egreso. El trabajo corresponde a una investigación de tipo no experimental, específicamente a un estudio de desarrollo por cohortes, que tomó como base a 38 estudiantes que concluyeron la carrera de un total 64 matriculados al inicio, de 71 que presentaron el examen de ingreso y que fueron aceptados en su totalidad.

Este ejercicio se sustenta, por un lado, en el análisis de las bases de datos del Departamento de Control Escolar de la propia Facultad, y por otra parte, en el diseño y aplicación de un cuestionario que permitió identificar algunos datos de carácter personal, así como aspectos de tipo socioeconómico que pudieran estar vinculados con sus trayectorias.

Entre los resultados más relevantes se pudo observar que del total de estudiantes matriculados en la cohorte de referencia, 73.2% corresponde a la primera etapa de ingreso y poco más de una cuarta parte, ingresaron en la segunda, aun así no se logró cubrir la capacidad de absorción que pretendía sumar 80 estudiantes.

Respecto al primer indicador considerado, se observó que el promedio del bachillerato con el que ingresaron los estudiantes oscila entre 6.5 y 9.5 puntos, lo que hace un promedio de 7.6, mientras que el segundo indicador resultó mucho más bajo que el anterior; en el examen de ingreso los 71 alumnos que presentaron el Exani II fueron aceptados, pero solo 50.70% lo acreditaron, con resultados que van de 6.0 a 8.2 puntos, y el resto, 49.30% lo reprobó, con promedios que oscilan entre 4.3 y 5.9 puntos de calificación. De todos ellos, únicamente 64 se inscribieron al primer semestre, lo que representó una tasa de migración cercana al 10%.

En el resto de indicadores, se aprecia que las tasas de promoción más bajas se registran en el tercero y cuarto semestre, lo que representa un problema que hay que atender entre el ingreso y los primeros dos años de la carrera. La tasa de retención más baja ocurre en el tercero y cuarto semestre, en tanto que la más alta ocurre en el octavo y noveno semestre y finalmente, la tasa de aprobación indica que de las 79 materias cursadas, en 35 de ellas supera el 90%, 30 materias oscilan entre 75 y 89.9%, 10 más se ubican entre 60 y 74.9% y solo 4 materias registran tasa de aprobación inferiores al 60%.

Palabras clave: Educación, trayectorias escolares, estudiantes, universitarios, México.

Abstract

Studying school progress allowed knowing different dimensions of the course a generation of the B. Sc. in Geography, of the Autonomous University of the State of Mexico, took. This study was a diagnosis and an evaluation alternative mechanism in order to plan the process for modifying the syllabus. The objective of the study was to evaluate some indicators of the school progress of the 2012-2017 generation of the B. Sc. in Geography. As background, the high school average, the results of the Official exam *Exani II*, the rate of promotion, desertion, retention and approval in the school progress of the students were considered, from the beginning of the studies until the end.

This work corresponds to a non-experimental research, specifically to a developmental study based on 38 students that concluded their studies. Originally, 71 students were accepted, but only 64 enrolled. This exercise is based both on the analysis of databases of the Faculty Academic Records Department and the design and application of a questionnaire that allowed to identify some personal data, as well as socioeconomic aspects that could be related to their school progress. Among the most relevant results it was observed that out of the total number of students who enrolled in that generation, 73.2% corresponded to the first stage of admission and just over one quarter entered in the second; nonetheless, the top availability was 80 students, which was not achieved.

Regarding the first indicator, it was observed that the school average of high school students who enrolled was 7.6, while the second indicator was much lower. In the entrance examination, all the 71 students who answered the *Exani II* were accepted, but only 50.70% passed it, with results ranging from 6.0 to 8.2 points. The rest, which was 49.30%, failed it, with averages ranging between 4.3 and 5.9 points. Only 64 enrolled in the first semester, which represented a migration rate close to a 10%.

In the other indicators, the lowest promotion rates are registered in the third and fourth semester, representing a problem that needs to be worked out between the acceptance process and the first two years of their studies. The lowest retention rate took place in the third and fourth semester, while the highest retention rate happened in the eighth and ninth semester. Finally, the approval rate indicated that from the 79 school subjects, 35 of them exceeded the 90%, 30 were between 75% and 89.9%, 10 were between 60% and 74.9% and only 4 subjects had an approval rate of less than 60%.

Key words: Education, school progress, students, university, Mexico.

Resumo

O estudo das trajetórias educacionais permitiu conhecer diferentes dimensões do caminho seguido pelos alunos de um grau carreira coorte em Geografia pela Universidade Autônoma do Estado do México, como um mecanismo alternativo para o diagnóstico e avaliação para o planejamento do processo de reestruturação desse programa. O objetivo deste estudo foi avaliar alguns indicadores de percurso escolar dos alunos no 2012-2017 coorte deste grau,

para ele quebrou os indicadores anteriores à admissão, como o ensino médio média e resultados de exani II e como a taxa de promoção, atrito, retenção e aprovação no caminho seguido até à sua saída. O trabalho corresponde a uma investigação de não-experimental, especificamente um estudo de coorte de desenvolvimento, que foi baseado em 38 alunos que concluíram a carreira de um total de 64 inscritos no início do estudo, 71 que tomaram o vestibular e foram aceitou na íntegra.

Este exercício é baseado em um lado, a análise das bases de dados do Departamento de Controle Escola da própria Faculdade, e, por outro lado, na concepção e implementação de um questionário para identificar alguns dados pessoais, bem como aspectos socioeconômicos que podem estar ligados a suas carreiras.

Entre os resultados mais relevantes, observou-se que o número total de alunos matriculados na coorte de referência, 73,2% corresponde à primeira fase de renda e pouco mais de um quarto, entrou no segundo, ainda não conseguiu cobrir capacidade absorção com vista a completar 80 alunos.

Em relação ao primeiro indicador considerado, observou-se que o segundo grau médio com os alunos que foram admitidos entre 6,5 e 9,5 pontos, com uma média de 7,6, enquanto que o segundo indicador foi muito mais baixa do que a anterior; no vestibular 71 alunos que fizeram o exani II foram aceitos, mas apenas 50,70% de modo creditado com resultados que variam de 6,0 a 8,2 pontos, e os restantes 49,30% que foi reprovado, com médias que variam entre 4,3 e 5,9 marcar pontos. Destes, apenas 64 foram registrados na primeira metade, o que representa uma taxa de migração de quase 10%.

Nos demais indicadores, vemos que as taxas mais baixas de promoção são registrados no terceiro e quarto semestre, o que representa um problema que precisa de atenção entre as receitas e os dois primeiros anos da corrida. A menor taxa de retenção ocorre no terceiro e quarto semestre, ao passo que a maior ocorrer no semestre oitavo e nono e último lugar, a taxa de aprovação que indica um dos 79 sujeitos estudados, 35 deles excede 90% 30 faixa de material a partir de 75 89,9% 10 estão entre 60 e 74,9% e apenas quatro sujeitos registaram taxa de aprovação inferior a 60%.

Palavras-chave: educação, carreiras escolares, estudantes, acadêmicos, México.

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Introduction

Higher education in Mexico, faces the greatest challenges of its history in terms of educational quality. Coverage, equity, income, failure, dropout, dropout and terminal efficiency problems are common to Higher Education Institutions (IES), according to the results of educational research in different universities in the country. Facing the new global horizon and the challenges of international competitiveness, the need for a better educational quality is raised (Garcia & Barrón, 2011, p.95), however, despite the reforms, the implementation of new models and many Other initiatives, it seems that in the short term there are no alternatives for improvement that contribute to reduce this problem.

Given this situation, studies of school trajectories are a tool that can contribute to the improvement of educational programs. The importance of this type of research is that they allow us to know the different dimensions of time, performance and school effectiveness that can influence policies for the planning and evaluation of higher education. "This type of study becomes a diagnostic tool and is a form of educational evaluation because it also provides indicators about the efficiency of school institutions by providing information on the impact of education on the school track or the performance of Students "(García & Barrón, 2011, page 99).

It is common to carry out diagnostic studies, planning and evaluation of educational programs, use indicators related to previous school trajectories and during training, in order to know the relationship between them and make the best decisions in favor of The programs concerned. Among the most prominent is the average of the high school, the entrance to the university, the rate of failure, retention, dropout, discharge and titration or terminal efficiency.

The objective is to evaluate certain indicators, which are of interest because they have not been approached in the Faculty, on the student's trajectories, in that sense they are considered indicators prior to their entrance, such as the average of the high school, the results of the Exani II, And other indicators of the trajectory followed until their departure, such as promotion, desertion, retention and approval, in order to generate some recommendations in favor of greater retention, and consequently improve terminal efficiency in this program.

Context

The UAEMex, where the work was carried out, registered in 2015 an enrollment of 77 465 students, of which 18 625 corresponded to the average upper level (bachillerato), in a total of nine schools plus the distance baccalaureate; 55 257 to professional studies (higher level) in 21 Faculties, 16 Professional academic units located in the interior of the state and two Research Institutes, the remaining 3 583 corresponded to advanced studies (postgraduate). The perspective is that for this year (2017) the enrollment of professional studies in this University will reach 57,000 students. (UAEMex, 2016).

The Faculty of Geography, of the UAEMex itself, considered as one of the Faculties of low demand, at the end of 2016 concentrated a matriculation of 642 students in three programs of Bachelor: Geography, with 50% of registered enrollment, Geoinformatics 18.4% and Geology, with 23.5%, the rest in two postgraduate programs: the Specialty in Automated Cartography, Remote Sensing and Geographical Information Systems (ECATSIG) with 2.6% and the master's degree in Spatial Analysis and Geoinformatics (MAEGI), which concentrates 5.5%, in addition to participating in an inter-institutional program of Masters and PhD in Environmental Sciences, located in the Faculty of Chemistry, whose registration is administered by that Faculty.

The Bachelor in Geography is a program offered in eight universities in the country: the National Autonomous University of Mexico (UNAM), the University of Guadalajara (UdG), the Autonomous University of the State of Mexico (UAEMex), the Autonomous University of San Luis Potosí (UASLP), Autonomous Metropolitan University (UAM) Iztapalapa Unit, Autonomous University of Guerrero (UAG), Veracruzana University (UV) and the Autonomous University of Querétaro (UAQ). In the UAEMex the program is relatively recent, it began in 1972 at the then Faculty of Philosophy and Letters, as academy of Geography and since then to date officially recognized five study plans.

Until 2001, the UAEMex operated each and every one of its programs under a traditional model, however, from that year, as a result of the new educational requirements at all levels, this University began the design and implementation of A new educational model; The Model of Curricular Innovation (MIC), which has as fundamental premises innovation,

flexibility and competence-based education, operated through a student-centered credit system.

The central idea of the MIC, according to its own institutional arguments, is to lay the foundations so that in a systemic structural framework, the training of professionals responds and permanently adjusts to the social demands and the scientific, humanistic and technological advances.) Promote the balanced articulation of knowledge (knowledge), know-how (procedures), know how to be (values), foster critical thinking and develop the problem solving capacity both in the disciplinary and social contexts (real field, Of the profession), with an inter and transdisciplinary vision" (Moreno, Medina, Espinoza, & Miranda, 2005, pág. 19).

Problem

According to Romo & Fresán, 2001, the choice of higher education institution has diverse origins, such as prestige, cost, geographical location or the regime (university or technological), these variables exert a strong pressure on The IES, which has led some to open a second and even a third option, despite the fact that it is an inadequate strategy to guarantee the permanence in higher education.

This is the case of the Faculty of Geography, in all its degree programs, as derived from its low demand, and the fame it has created as a Faculty where it is easily entered, those who do not enter the career of their preference as First option, they turn to Geography as a second and, some time ago, even in a third option. Derived from the low demand, all applicants are chosen in order to cover the absorption capacity, which sometimes not even if it manages to fill, as we will see below, without taking into account that "an appropriate selection process, may have Positive effects not only on school integration, but also on the permanence of a student in the institution he / she had access to "(Romo & Fresán, 2001, p.160).

The Faculty of Geography of UAEMex concentrated only 1.1% of total university enrollment in 2015, which has allowed it to be considered as one of the low demand faculties, just above others such as the Faculty of Arts, Of Anthropology and the Faculty of Urban and Regional Planning, which together account for 2.5% of the total number of registered students.

Among other aspects of singular importance are the implications of the averages that come from the baccalaureate who enter the Faculty of Geography, low results obtained in the examination of admission, dropout in the first semesters, as well as student lag, Retention problems and of course egress and terminal efficiency.

The previous and current curricula, rather than following a systematic study of the supply and demand of professionals, for their formulation followed the logic that the authorities in turn wanted to print, and its curricular structure responds to institutional conjunctures and personal interests, rather than To serious and consistent inquiry processes that allow an approach in line with social and labor demands.

Given these circumstances, it is imperative to review what is happening with certain indicators that are part of the trajectory of the students, which are inherent in the quality of the program and which are also part of the requirements that the evaluating agencies recommend to be taken care of so that said Program is maintained.

Method

The work corresponds to non-experimental research, specifically to a cohort development study, understood as the "set of individuals who share some common vital event" (Cancela, Cea, Galindo, & Valilla, 2016).) Or the set of students entering a professional career in the same year, and is carried out with a sample of students of the Degree in Geography of the UAEMex that correspond to the cohort 2012-2017, based on 38 students who graduated With their cohort of a total of 64 enrolled at the start of their career of the 71 who submitted the entrance examination and were accepted.

The procedure was carried out in two stages:

The first of these is based on the analysis of the databases of the Department of School Control of the Faculty itself, which retrieve data validated by such instance, as the account number, - unique data that identifies all Student's name, date of birth, gender, the average of the previous level (baccalaureate), the results of the Exani II, which is the test that applies to all students who have completed Satisfactory level of the baccalaureate, aspire to the studies of the higher level, the stage in which they entered, group, subjects taken and their type (compulsory or optional), semester in which they are taught, corresponding credits, Period in which they are taken and in which each of them is credited, as well as the

qualifications and the obtained average. With some of the reference data, the indicators that are useful for the study, such as the average of the baccalaureate, the result of the admission exam, the promotion, dropout, retention and approval rates are derived.

In a second stage, in order to know in greater detail some socioeconomic aspects of the students, which could be linked to their trajectories, the technique of the survey was selected and consisted in the design of a questionnaire, which collects general data, trajectories and Socioeconomic data, as references to understand their school process. The instrument is based on the Research Project "The school trajectories in the Bachelor of Social and Natural Sciences of UAEMex 2003-214", with registration number UAEMex; And was complemented by the contributions of works such as the Tracking of school trajectories of the Degree in Modern Languages of the Benemérita Autonomous University of Puebla (BUAP) (González Martínez , 1993), the analysis of the school trajectories of the UNAM (Valle, Rojas, & Villa, 2001), the study of Desertion, lag and terminal efficiency in the HEI of the National Association of Universities and Institutions of Higher Education (ANUIES) , (ANUIES, 2001) and the Guide for the follow-up of school trajectories of the Autonomous University of the State of Hidalgo (Ponce de León, 2003).

For the application of the instrument, a sampling of probabilistic type was carried out in the months of November and December of 2016, in the own facilities of the Faculty of Geography, where the program is taught, using the technique of simple random sampling, so that All members of the analysis universe were equally likely to be selected.

A total of 30 instruments were applied, representing a sample close to 80% of the total population studied. This sampling option is chosen when it comes to obtaining direct information or primary data, since some authors recognize that if we need information of this kind to achieve the objectives of our research, one of the most used data selection techniques is the poll. This is based on the elaboration of a questionnaire that "we formulate to the people, institutions or companies, of which we want to obtain information" (Lafuente & Marín, 2008, page 12).

The procedure for its application was to identify the academic staff working with the groups under study to request a space of at least one hour in one of their classes to apply the instrument to their students in both shifts. Already in the groups the students themselves

were asked for their authorization to apply this instrument, of their own volition, and with their endorsement, proceeded with the application.

Conceptual theoretical reference

The studies of educational trajectories in higher education have been approached at different times and from multiple perspectives, firstly, for the importance that they have as a strategy for the diagnosis, evaluation and planning of undergraduate and postgraduate plans and programs. The evaluation policies of institutions, generally associated with organizational change and their financing (Buendía, 2014).

The school trajectory as "the course that follows a cohort of students in a certain time, from their entrance to a specific curriculum" (Valle, Rojas, & Villa, 2001, p.

It is also considered as the academic behavior of an individual and includes school performance, passing, failure, the average achieved, throughout the school cycles. "The analysis of the school trajectory implies observing the movements of a student population throughout the specified school cycles in a cohort" (García & Barrón, 2011, pp. 95-96).

The way in which the researcher "can approach this type of studies is by way of school fees, which are divided into two major classes of indicators: the first are the coverage rates, which are derived from the schooling rate And income rates; The second are those that express the movement of the school population or the transit through school cycles and levels, such as retention, desertion, promotion, repetition or egress, which we will call school trajectories "(Rodríguez, 2016, pp. 225 -226).

"Trajectory studies are indispensable to identify problems related to low school performance, academic discontinuity or lag, and reprobation" (Mares, Rivas, Leyva, Rueda, & González, 2015, p.3). And to verify the degree to which the objectives of the university are being met, that is to say, the degree of appropriation of knowledge as well as the consolidation of professional profiles (Vazquez, 2016).

In this type of work, it is crucial to study some indicators prior to the students' entry to the higher level, in order to assess if there is any relation between the previous results and those that result from their incorporation at the professional level, but should not be left To the side also the transition that lives between the average level and the superior level, when this

enters the superior education system, its life and its personality can be object of a transformation that facilitates or obstructs its process of integration, from the academic point of view And social (Legorreta, 2001), for that reason the importance of the average of the bachillerato and even the result of the examination of admission to the University, but not enough to explain the possible permanence of the students, there are those who consider that the first two years are Key in university life in terms of integration as students at this higher level (Gómez, 2014, p. A place in the institution concerned, after which its transit may be much more favorable.

Some references in the study of the trajectories in Mexico are Muñiz Martelón, those of the ANUIES or the works of Vincent Tinto, who stand out for their contributions in more or less common directions. The first one reviews university educational trajectories that may be significant in UAM students prior to the 1982 crisis, from a gender and cohort perspective, as well as on the social origin of the students, according to their personal attributes And academic background that have to do with the academic quality of these students (Muñiz, 1997), another basic reference is that of Tinto, 1989, who reviews the issue of dropout from different perspectives as an inherent aspect of school trajectories , As well as the possible causes that motivate it. ANUIES also constitutes a basic reference in the studies of trajectories, because of its multiple contributions in this respect, in a work of the beginning of the century, it addresses desertion, lag and terminal efficiency in HEIs (ANUIES, 2001), but its production It is quite enough on this particular.

Although it is true that the recent production of qualitative and quantitative studies, in terms of the study of school trajectories and their implications, has been growing, we agree when one author insists on empirical studies on student persistence, to reflect on the Causes of abandonment of studies, as the situation becomes more and more worrying (Tinto, 1993, p.10). In the case in question, the cohort 2012-2017, most of the students who entered the race did not complete it and the question is that the same thing is happening, or even worse, in other races, especially those considered as major difficulty.

In the process of inquiry we find that many universities share the same concern, since 1993 in the UdG (Carrillo, 1993) addressed the issue of school dropout, questioning whether it

was a rational decision or an involuntary multifactorial effect ?, in parallel, In the BUAP, the work on the follow-up of school trajectories of the Degree in Modern Languages (González Martínez, 1993) was carried out, whose academic quality and contributions later won the ANUIES 1999 award for the best master's thesis. In the UV, for example, (Chain, 1995) approaches the study of the school trajectories from different perspectives and a few years later, Casillas and Chain itself, also in the UV review the social origin of the students and their trajectories in this university (Casillas & Chain, 2007), while the UAM, a few years later, reviewed the changes made in its admissions policy and changes in school trajectories, specifically with first year students at UAM-Azcapotzalco (De Garay & Sánchez, 2011).

It is imperative to point out that due to the importance of the previous contributions, the work is based partly on them and on some approaches that have been made from the methodological point of view, on the school trajectories, such as the Methodology for the demographic analysis of efficiency (Valle, Rojas, & Villa, 2001) on school trajectories at the UNAM (National Institute of Statistics and Statistics) , To propose a method of analysis, as well as the Guide for the monitoring of school trajectories (Ponce de León, 2003) that arises within the Autonomous University of the State of Hidalgo.

Other papers link the school trajectories with the work side (Barranco & Santacruz, 1995), (Guerra, 2009), (Irrazabal & Oyarzún, 2003) or with curricular aspects (Romo & Fresán, 2001). Likewise, we can identify contributions from the graduate programs (García & Barrón, 2011), (Jiménez-Vásquez, 2011), which although they are not the object of this exercise, illustrate how little by little they have added to the concerns of researchers And authorities, for the benefits they generate in favor of programs and their knowledge.

Results

According to data obtained from the Department of School Control of the Faculty of Geography (UAEMex, 2012), the 71 students presented the admission exam to enter the Faculty of Geography in 2012 were accepted, however only 64 were registered, with light Predominance of a male more than the number of women. Of the total enrolled in the study cohort 73.2% corresponds to the first stage, this is who choose the race as their first choice and the rest, just over a quarter, entered the second, ie choose the race , After being rejected

in what was the race of their choice or first choice, even so the program failed to cover the estimated capacity of absorption in 80 places, leaving 20% of available space free, thus evidencing because Catalog as a low-demand race.

Average of high school

The first data considered in this study is the average of the baccalaureate of the students who entered the Faculty in the cohort 2012-2017, the previous one as an alternative to know, in part, the antecedents of the students, since some studies have identified that "Academic success in the university is related to the previous academic trajectory" (Mares, Rivas, Leyva, Rueda, & González, 2015, page 2). In this sense, the students' results are very diverse, ranging from 6.5 to 9.5 points, which means that the general average of the high school students entering is low, since it corresponds to 7.6, evidencing that The students who choose to study the Degree in Geography, in general, can not be considered high performance, prior to the beginning of their career.

Regarding the academic success of the students with the best averages of high school, at least for this case is not met, since the same deserts or reprimand who records averages above nine points that those who did not reach seven.

Average Exani II

Exani II is a test that is applied to students who intend to enter the higher level in Mexico, this test provides institutions with information about who are aspiring to their programs, which have the greatest chance of success in studies And their level of performance in key areas for the start of higher education.

In this regard, it should be pointed out, as stated above, that all the students who took the test were accepted, but only 50.70% registered it, with results ranging from 6.0 to 8.2 points, and the rest, 49.30% failed, with averages Ranging from 4.3 to 5.9 rating points. Of these, only 64 enrolled in the first semester (50% of each gender), registering a migration rate close to 10% between the entrance exam and the entrance to the first semester. Were accepted, which is not the same as approved, did not enter the race.

It is possible to state that the latter do not coincide with the grades obtained in the baccalaureate (Martínez, 2001, page 94), at least for the cohort Study, since the differences

between maximum and minimum averages, as we saw in the previous section, are very marked and the general average that they obtained between the baccalaureate and the Exani II, decreased 1.5 points, while the final average of the Career was higher than the previous ones (7.9 points), that is, two points above the average of Exani II and three tenths above that of high school.

Of the total number of students enrolled at the beginning of the school year, 38 completed their studies, which represents a dropout efficiency of close to 60%, with a slight predominance of the masculine gender over the feminine, however, with the addition of lagging students from different generations. In the end, 41 students were graduated in that generation. The characteristics of the indicators considered in the work on their journey through the classrooms are shown in the following sections:

Promotion rate

The promotion rate is nothing more than the relation that exists between the students who enroll in the next immediate grades, from the previous grades (González Martínez, 1993) and according to the author herself is calculated from the following way:

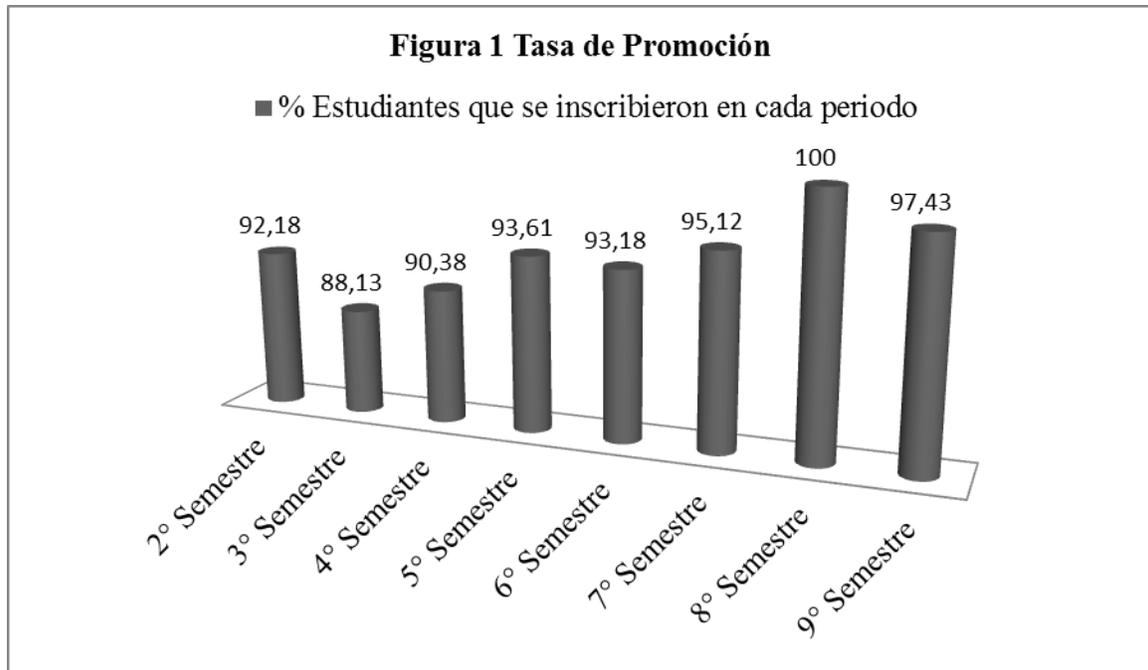
$$TPR = AI \times 100 / AIA$$

Where:

AI= Number of students in the cohort enrolling in a given period

AIA= Number of students in the cohort, enrolled in the previous period

As can be seen in figure number one, the promotion rate is maintained above 90% for this race, except between the third and fourth semester, where it does not reach this percentage, while the smallest difficulties are recorded in the eighth Period (semester) where the promotion was 100%. When questioning the graduates about what happens in the first periods, they show a strong disenchantment with the career derived from the traditionalist way of teaching by the academic staff, and they also point out the complexity that the teachers have to understand the object of Study of the career, and the little application that they see of the knowledge acquired, among the most relevant causes.



Fuente: Elaboración propia con base en los datos proporcionados por el Departamento de Control Escolar de la Facultad de Geografía.

Dropout rate

Another important indicator to understand the trajectories of the students is the dropout rate, which is defined by the student's abandonment of the courses or careers to which he has enrolled, failing to attend classes and meeting the (ANUIES-SEP, 1986), in other words, it is understood as the relation between the students who register in a determined period and those who leave the studies in that period, can be calculated by period or for the whole journey (Per generation).

1. ***The drop-out rate per generation (TDG) is calculated as follows:***

$$TDG = AD \times 100 / AC$$

Donde:

TDG= Generation dropout rate

AD= Number of students in the cohort who leaves the course for the entire journey

AC= Number of students enrolled in that cohort

2. *The six-month cohort drop-out rate (TDSC)*, is intended to characterize the behavior per cycle, in terms of dropout, to make timely decisions and is calculated as follows:

$$TDSC = ADS \times 100 / AIS$$

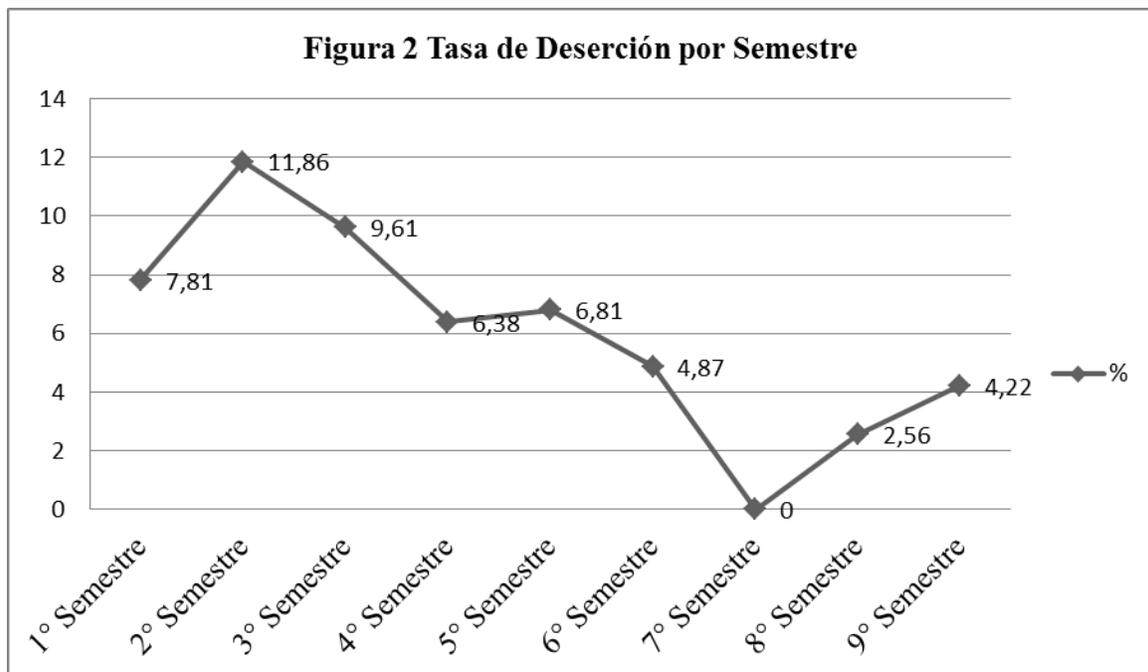
Donde:

TDSC= The semiannual dropout rate of the cohort

ADS= Number of students leaving the course in the course of the cycle (semester)

AIS= Number of students enrolled at the beginning of the same cycle (semester)

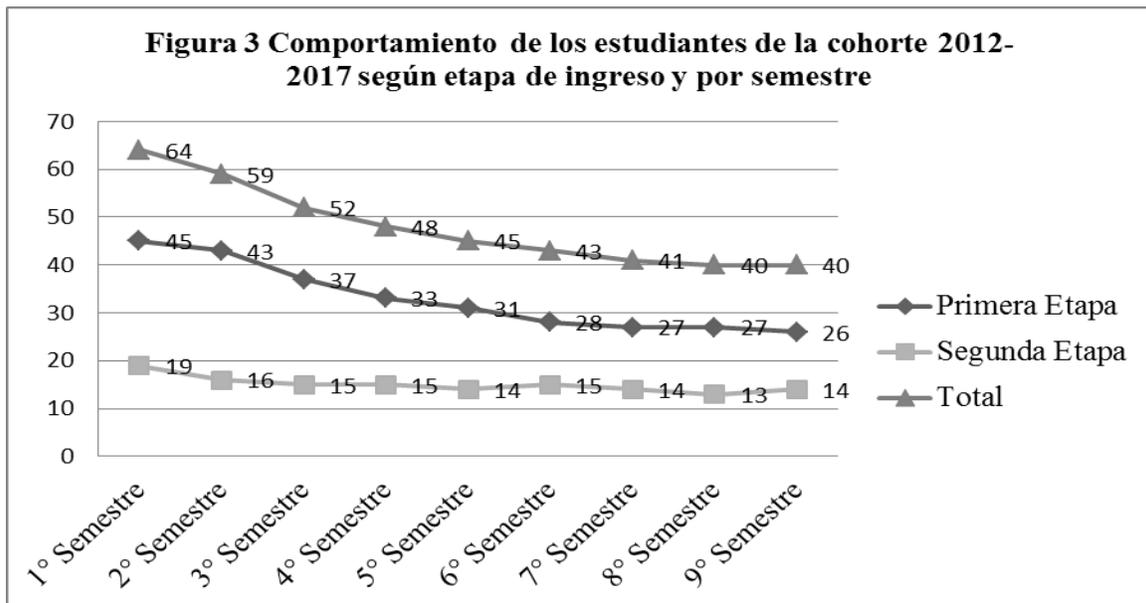
According to data from the Secretariat for Higher Education of the SEP, the university drop-out rate in the last fifteen years has been between 7.5 and 8.5% at the national level (Gracia, 2015, p.6). Considering the data of the Department of School Control of the Faculty of Geography, the semiannual dropout rate, in at least two periods (second and third semester), surpasses the national average, although from the fourth semester it is markedly decreased, as shown In figure number two. The generational dropout rate for the cohort under study is 40.62%.



Fuente: Elaboración propia con base en los datos proporcionados por el Departamento de Control Escolar de la Facultad de Geografía.

The strongest problem occurs in the first three semesters, and especially in the second, once the students are faced with the change of system, level and context, and where some of them discover that it is not really what they want and even When it is, they decide to stay for a while, to test and evaluate the pertinence of staying or leaving in search of something that fulfills their expectations (Vázquez Lozada, 2016). Contrary to what is traditionally believed and accepted, that the second option students are the ones who leave the career most, in this case it does not happen, the following figure illustrates the behavior of those who entered each of the stages and their Behavior during the nine semesters, showing that just those who drop out of school are those who entered the second stage.

Among the most relevant factors that the graduates interviewed suggest are the problems of lack of identification with the career they choose, economic, personal and academic problems, that is, the number of failed assessments along the way (Sánchez Cano, 2016), since In accordance with the Internal Regulations of the Faculty of Geography "when a student accumulates 20 failed assessments in compulsory or optional learning units corresponding to the level of undergraduate professional studies, whether of an ordinary, extraordinary or special and special qualification, Will permanently cancel your enrollment", (UAEMex, 2016, pág. 6).



Fuente: Elaboración propia con base en los datos proporcionados por el Departamento de Control Escolar de la Facultad de Geografía.

Retention rate

The retention rate, according to Ramsden (1999) cited by Ponce de Leon, 2003, p. 21 "is the percentage of students retained by the institution in a given school period, can be quarterly, four-monthly, semester or all the race".

This indicator is calculated as follows:

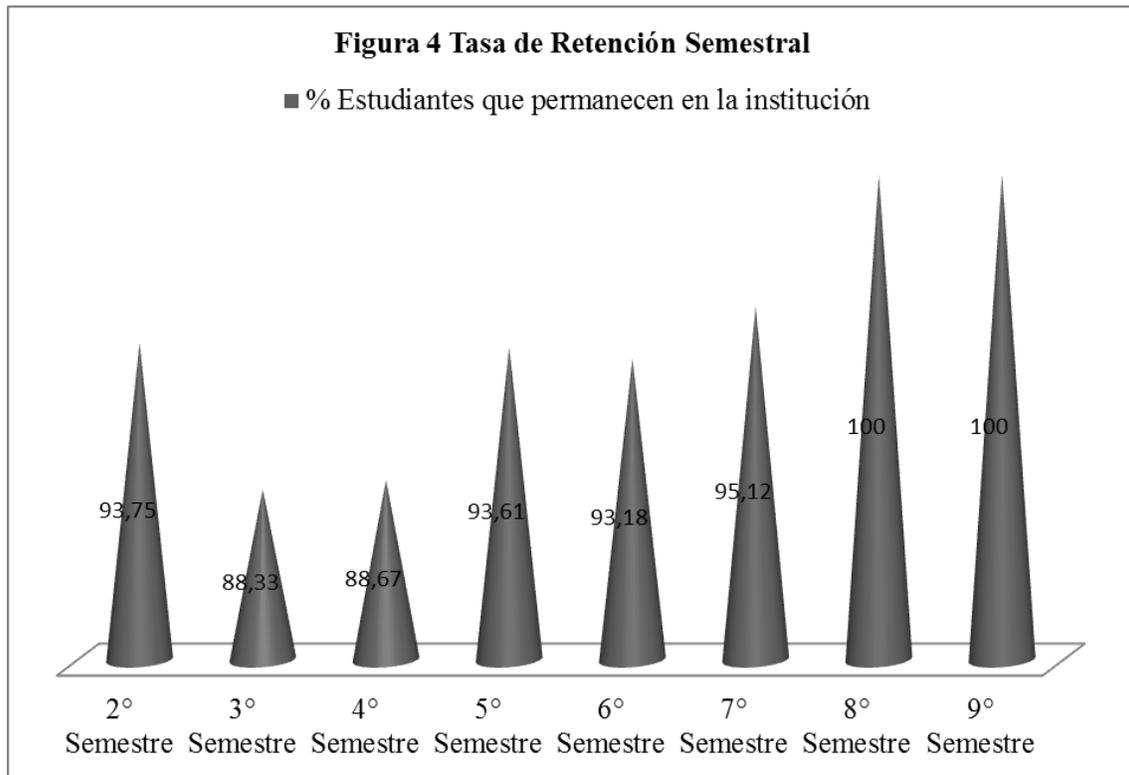
$$TR = AP \times 100 / AIS$$

Where:

AP= Number of students remaining in the institution at the end of a cycle

AIS= Number of students enrolled in this cycle

In the first instance it was calculated for each period (semester) and later for the entire journey (career).



Fuente: Elaboración propia con base en los datos proporcionados por el Departamento de Control Escolar de la Facultad de Geografía.

This indicator, for the reference cohort, as can be observed in figure number four, shows a very singular behavior, since it is not between the first and second periods where the lowest retention is recorded, but between the second and third And between this and the fourth period, in congruence with the arguments of Gómez (20014), when he refers to the importance of the first two years in the school life of university students. After these data, except in the sixth period where there is a slight decrease, the retention process is upward, to close with 100% in the eighth and ninth semester, which shows that the greatest attention should be focused at the beginning of the race , Without neglecting the journey.

Taking a general balance, the retention rate of the entire school process is 59.38% for the cohort under study, which means that more than 40% of the students enrolled at the beginning of the period did not achieve Be retained in the program.

Approval Rate

The approval rate is understood as "the ratio of the number of students approved to the course" (Ponce de León, 2003, p.23). Although there are different ways to calculate it, in this work we opt for the approval rate in ordinary (TAO)

- The TAO shows the approval of the students in the subjects corresponding to each semester in relation to the students enrolled in those subjects, using exclusively the first option of evaluation of each course, that is, ordinary examination. Its calculation is done by subject and is done as follows:

$$TAO=AAO \times 100/AA$$

Where:

AAO= Number of students who passed the subject in ordinary

AA= Number of students who took the course

According to the data of the Curriculum of the Bachelor's Degree in Geography (UAEMex, 1993), there are 55 learning units (subjects), 45 compulsory and 10 optional, the latter classified in 4 Basic and 6 integrals, the basic ones must be taken preferably between the second and fourth semester and are common to all students, the integrals are between the fourth and the eighth period, and are chosen from a block of materials that exist for each line Of accentuation of the race (Evaluation of Risks and Territorial Impact, Territorial Planning and Integral Geographic Planning).

According to the results obtained from the Department of School Control, the students of the cohort studied 79 learning units in total, 45 compulsory and 34 optional, and given the difficulty of doing an independent analysis, precisely because of the volume of subjects studied, The results were grouped into four large blocks: high approval, medium, low and very low.

1. In the first group were located 35 learning units that have a very favorable approval rate, higher than 90%.
2. The second block concentrates 30 learning units with an average approval rate of between 75 and 89%.
3. Block number three concentrates 10 units of learning whose approval rate is low and ranges between 60 and 74.9% of those who study them.
4. Finally in the last block there are 4 learning units, whose average approval rates are below 60%, these being the subject of Geology that is taken in the second semester; Geography of Urban Systems and Geography of Commerce and Services, which are taken in the fifth semester, as well as Models of Land Management, corresponding to the eighth semester.

According to the results of the surveys, students assert that the low approval rates in these subjects are common in recent years, however neither the authorities nor the tutors have assumed their responsibility when they are asked for support and even Questions them about basic aspects that could favor higher approval, retention, or efficiency indexes, either by revealing aspects of hidden seriation, precisely the most difficult subjects, those with high failure rates, and even personal aspects or Presence of arrogant or arrogant teachers that do not favor the development of suitable trajectories, a series of situations that the authorities should take into account, together with the academic staff and the tutors, if we want to improve the image of the career and the results that Offers the program.

CONCLUSIONS

As can be seen throughout the work, a central problem that characterizes the program is its low demand, as a result, efficient educational guidance services are needed, which help to improve the demand of the program and prevent student failure or lag Who enter the race as undecided (Romo & Fresán, 2001).

"The explanation of the factors influencing students' academic performance, while receiving enormous attention in the past, drawing interesting conclusions, continues to be a significant challenge for the research community" (José, Miquel, & Sempere, Since such factors can not be generalized for the whole country, since social, economic, political and cultural differences, as well as geographical conditions, may be influencing the performance differently. According to the results obtained in several studies of universities in the country, and specifically, the problem of school dropout is multifactorial and involves personal aspects (indiscipline, dissatisfaction with the chosen career, reprobation), as well as family type, Economic and changes of place of residence among others.

A constant in the Faculty of Geography of the UAEMex, is that it does not cover the capacity of absorption, reason for which, a long time has been used to a second - and a third stage to meet, in part, said capacity, Which indicates that from the interior of the space are not taking the necessary measures to position the programs, and can be from the work of promotion or dissemination of careers, lack of clarity in the geography, poor quality in training Of the professionals and the quality in their work performance.

Contrary to what has always been said and believed in the faculty, that the second-choice students are the ones who drop out most of the studies, according to the results of the work, it can be guaranteed that this is not the case, the dropout rate or In the first stage is 29.68% and in those who entered the second option corresponds to 7.81%, an important indicator, so it can mean for those who are given another opportunity to enter the professional studies and that there will evidently be To dig deeper.

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