

La calidad de la educación superior y la reestructuración del programa de tutoría

The quality of higher education and the restructuring of the tutoring program

A qualidade do ensino superior e a reestruturação do programa de tutoria

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Resumen

Para que la educación superior sea parte de la sociedad del conocimiento necesita replantear la forma de enseñar, de manera que genere en los alumnos, aprendizaje autodirigido, educación a lo largo de la vida, y una formación integral.

Los altos índices de reprobación y deserción, rezago y bajos índices de eficiencia terminal, son retos que tienen que enfrentar las Instituciones de Educación Superior (IES). Para tratar de disminuir la situación anterior se implementan diversas estrategias, una de ellas es orientar académicamente al alumno, al considerar que los alumnos tienen capacidades y potencialidades propias. Por ello cada estudiante requiere un acompañamiento personalizado, que le proporcione los fundamentos necesarios para tomar mejores decisiones respecto a su formación profesional. La actividad tutorial tiene una especial relevancia, ya que complementa la labor docente.

El objetivo de este trabajo fue mejorar la calidad del proceso educativo a través de la atención personalizada a los problemas que intervienen en el desempeño académico de los estudiantes, para de esta manera lograr disminuir los porcentajes de reprobación y deserción. Al considerar lo anterior surge la necesidad de modificar el programa de tutoría con forme a

las nuevas necesidades de los estudiantes, así como de una renovación de las estrategias tutoriales. La metodología utilizada fue hacer un diagnóstico de los problemas presentados por los alumnos durante 2016. Con base en los datos recabados se procedió al análisis de estos y se encontró lo siguiente: problemas de tipo académico en diversas áreas del conocimiento, con acento en el área de matemáticas; problemas de hábitos de estudio, de comprensión lectora, administración del tiempo, entre otros. Por ello, fue necesario modificar el programa de tutoría académica, con las estrategias a seguir para atender las necesidades detectadas en los alumnos, modificar la actividad tutorial, dar seguimiento y evaluar las acciones de los tutores.

Palabras clave: programa, tutoría, calidad, educación.

Abstract

In order for higher education to be a part of the knowledge society we need to rethink how to teach so we can generate in the students self-directed learning, lifelong education, and comprehensive training.

The high rates of failure and dropout, lag and low levels of terminal efficiency are challenges that Higher Education Institutions (IES) have to face. To try to reduce the previous situation, several strategies are implemented, one of which is to orient the student academically, considering that the students have their own capabilities and potentialities. Therefore, each student requires personalized attention, which provides him with the necessary fundamentals to make better decisions regarding his professional training. The tutorial activity has a special relevance, since it complements the teaching work.

The objective of the work was to improve the quality of the educational process through personalized attention to the problems involved in the students' academic performance, in order to reduce the percentages of failure and desertion. Considering the above, there is a need to modify the tutoring program to the new needs of students, as well as a renewal of tutorial strategies. The methodology used was to make a diagnosis of the problems presented by the students during a year, based on the collected data, we proceeded to the analysis of these, finding the following: problems of academic type in various areas of knowledge, with

emphasis in the area of mathematics, problems regarding habits of study, reading comprehension, administration of time, among others. Therefore it was necessary to modify the academic tutoring program, with the inclusion of strategies thought to meet the needs detected in the students, and to modify the tutorial activity to follow up and evaluate the actions of the tutors.

Keywords: program, tutoring, quality, education.

Resumo

Para que a educação superior seja parte da sociedade do conhecimento, precisa repensar o modo de ensino, de modo a gerar nos alunos, a aprendizagem autodirigida, a educação permanente e uma formação integral.

As altas taxas de falha e abandono escolar, atraso e baixos níveis de eficiência terminal são os desafios enfrentados pelas Instituições de Ensino Superior (IES). Para tentar reduzir a situação anterior, várias estratégias são implementadas, uma delas é orientar o aluno academicamente, considerando que os alunos têm suas próprias capacidades e potencialidades. É por isso que cada aluno exige um acompanhamento personalizado, o que lhe proporciona os fundamentos necessários para tomar melhores decisões em relação ao treinamento profissional. A atividade de tutorial tem especial relevância, já que complementa o trabalho de ensino.

O objetivo deste trabalho foi melhorar a qualidade do processo educacional através da atenção personalizada aos problemas envolvidos no desempenho acadêmico dos alunos, a fim de reduzir as taxas de falha e abandono escolar. Ao considerar o acima, é necessário modificar o programa de tutoria de acordo com as novas necessidades dos alunos, bem como uma renovação das estratégias de tutorial. A metodologia utilizada foi o diagnóstico dos problemas apresentados pelos alunos em 2016. Com base nos dados coletados, a análise destes foi realizada e os seguintes foram encontrados: problemas acadêmicos em diferentes áreas do conhecimento, com ênfase na área de matemática; problemas de hábitos de estudo,

compreensão de leitura, gerenciamento de tempo, entre outros. Portanto, foi necessário modificar o programa de tutoria acadêmica, com as estratégias a seguir para atender às necessidades detectadas nos alunos, modificar a atividade do tutorial, monitorar e avaliar as ações dos tutores.

Palavras-chave: programa, tutoria, qualidade, educação.

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Introduction

The concept of tutoring appears in flexible educational models, considering the need to accompany the decision-making processes in both the academic and the personal of the students.

Tutoring is defined as: the personalized and committed attention of the tutor in relation to the student; is to orient, guide, inform and train the student in different aspects and moments of his academic career, integrating administrative, academic, psychopedagogical, motivational and personal support functions.

English and North American universities promote individualized education. For this reason, the teaching activity is diversified incorporating tasks such as teaching versus group, working with small groups and activities of personalized attention. In the United States and Canada, as well as in some European countries, centers have been created specifically geared to meet the academic and personal requirements of students.

In Spanish-American countries certain experiences are known. In our country, tutoring appears in the early 1940s at the UNAM, specifically in the postgraduate studies of the Faculty of Chemistry. Since 1970 the tutorial system consists of making the student and the tutor responsible for the development of academic activities and for the realization of

research projects of common interest. This activity is based on the Norms Complementary to the General Regulation of Postgraduate Studies. In 1972, the tutorial activity was incorporated into the Open University System (SUA) at UNAM; in 1991 in the Faculty of Medicine (ANUIES, 2001).

Recently proposals such as the one applied in the baccalaureate of the University of the City of Mexico have appeared, in which the tutoring represents a basic element of its educational model. The activity of the teachers mainly tutorial, attends individually to the students, who advance at their own pace, within a very flexible curriculum.

The Institutions of Higher Education have been given the task to implement programs that increase the possibility of adjusting the pedagogical aid that is given to the subjects in formation; the tutorial programs are some of them (Díaz de Cossio, 1998). These are one of the fundamental strategies to promote the integral formation and to facilitate the adaptation of the subject in formation to the university environment as well as to improve his abilities of study and work through the specific attention of specific problems of the school trajectories (ANUIES, 2001).

Personalized attention on the part of the teacher favors a better understanding of the problems that the subject in training faces in terms of their adaptation to the university environment, the individual conditions for an acceptable performance during their formation and for the achievement of the objectives academics that will allow him to face the commitments of his future professional practice (ANUIES, 2001). On the other hand, tutoring is an academic activity that contributes to the integral formation of students, aims to improve their academic performance, helps to solve their school problems and develop habits of study, work, reflection and social coexistence (Lugo and Leon, 2008 in: Model University, 2010). It is necessary to emphasize that the tutorial activity is complementary to the teaching practice.

The HEIs, considering the supply and demand processes that they face, should be concerned with offering programs incorporating skills and abilities requested in the labor field in order

to raise the quality of education. One response to this situation is the flexibilization of educational programs and with this arises the need to provide an accompaniment of students through an academic tutoring program. Some examples of these are listed below.

At the Autonomous University of the State of Hidalgo, tutoring provides assistance to the student throughout his school career, with the support of a counselor, a social worker and a mentoring teacher. In 1992 the tutorial function was established at the University of Guadalajara. Also in private institutions, such as the Anahuac University, the Ibero-American University and the Technological Institute of Higher Studies of Monterrey (ITESM), this service is provided.

The specific case to be addressed is the UAEM Academic Tutorial Institutional Program, which began to operate simultaneously with the Institutional Model of Curricular Innovation, based on the Institutional Development Master Plan 2001-2006, where it was intended to influence decisively in "... the integral development of the student, since in addition to the academic-disciplinary support has a formative function. For this reason, the figure of the tutor requires a special preparation, that is, that the students have the support of a teacher who guides their individual and group self-learning efforts and skills, people that induce them to research and practice and that they are examples of commitment to the academic, humanistic and social values that the UAEM promotes, as well as a determined institutional identification "(Institutional Development Plan 2001-2006, p.82). The program was created with the purpose of orienting the student in the decisions about his academic career and to support his academic achievement, through the figure of the tutor.

The objective was to improve the academic tutoring program so that it responds to the academic needs of the students and in this way to try to decrease the abandonment and the indices of reprobation. Obtaining the above can raise the quality of education.

Tutoring Program of the Autonomous University of the State of Mexico

In 2001, the UAEM developed the Institutional Model of Curricular Innovation (MIIC), which "focuses on the transformation of university vocational training, from a focus on independent disciplinary fields to a more comprehensive one, where the inter and transdisciplinary vision for the study of the complete phenomena of knowledge and professional solution is the constant "(Moreno, 2005: 1).

The objective of this is the training of professionals that responds and is permanently adjusted to the social demands and to the scientific, humanistic and technological advances; to promote learning focused on the apprentice, as well as the balanced articulation of knowledge (knowledge), knowing how to do (procedures), knowing how to be (values) that foster critical thinking and develop the problem solving capacity both in the theoretical disciplinary context, as in the social field (actual insertion of the profession), with an inter and transdisciplinary vision (Moreno, 2005: 8).

Considering the above, there is a need to implement "curricular support programs, such as tutoring and academic exchange that strengthen the student's educational trajectory and projects in other institutional settings" (Moreno, 2005: 9).

In September 2001, the UAEM instituted the tutorial activity through the Institutional Academic Tutoring Program (Proinsta), which aims to promote the academic training of the student of the UAEM, providing support throughout his career with counseling in the disciplinary area, in order to have greater opportunities for academic and professional success.

The phases of implementation of the program are: Introduction to the teachers who will serve as coordinators in each campus, training and training of tutors, implement the Institutional Academic Tutoring Program, follow-up of the program through the delivery of periodic reports (quarterly and semester) as well as quarterly meetings with the coordinators of each space to feedback the process of mentoring, evaluation of the program to identify, analyze

indicators of failure, desertion, lag, as well as the terminal efficiency index; essential information for decision-making and evaluation of the institutional program.

As one can identify, one of the main activities that were carried out in the tutoring program is to train the tutors of each body, with the purpose of publicizing the main aspects of this and the process to be followed to elaborate their own tutoring program, based on the characteristics and needs of each educational program they teach.

Its implementation has been progressive and since 2008 there was an electronic tool for information management, the Intelligent System for Academic Mentoring (SITA) (UAEMéx, 2009: 3-4), which was useful for the registration of activities of the tutors and for the monitoring of program indicators from different levels, student-tutor-coordinator. But the needs of the students changed and therefore the tutoring program should be restructured.

Materials and methods

When carrying out a review of the reports delivered by the tutors of each of the groups of the computer engineering career - which in turn were generated by the tutoring system, reflected in the failure and desertion indexes - identified a lag of Academic Tutoring in relation to the new student care needs, as well as the requirement to renew the tutorial strategy.

The methodology used to carry out the research was to make a diagnosis and later an analysis of the problems that are presented in the students of the Degree in Computer Engineering of the University Center, implemented as part of the restructured system and evaluation of the same. This in order to restructure the Tutoring program and attend to the needs of the students, and then make the proposal to modify the tutoring system

The diagnosis was made considering the semiannual and annual reports delivered by the tutors of each of the groups. In this case there are 10 groups per semester, with a total of 515 students. In these the problems are reflected individually and by groups of indicators, among which are:

Outstanding: They are students who do not have any failing material and their average is greater than or equal to 9.

Regular: They are students who do not have failed subjects, it is not considered the average.

Irregular: They are students who have one or two failed subjects. Also included are those with specific needs, or students who have a different ability.

At risk: Students who are taking a subject for the second time and also have failed subjects.

The reports also showed the problems that the students presented the most, these being:

Problems in the area of math (73%): The low performance of students in this area is reflected in the high rates of failure, and consequently, the resource index of the subjects. These include linear algebra, upper algebra, I, II and III calculus, analytic geometry, fourier analysis, among others. Sometimes it results in desertion.

Lack of study habits (69%): The time spent by students to study outside the school goes from two to three hours. Technological advances are often a double-edged sword for learning, as students spend a lot of time on social networks, with cell phones, video games, among others.

Lack of reading comprehension (60%): Students read but generally do not reflect on reading, do not analyze it. In short they have no habit of reading.

Poor time management (42%): Generally, they do not plan, do not assign priorities to carry out their activities.

Poor prior knowledge (42%): The lack of basic background knowledge, difficulty in the analysis and preparation of papers, high failure rates in the semester are situations that affect the seriation of learning units and increase lag, among others.

Problems in programming (58%): Students do not have the necessary knowledge to solve problems with the use of the computer and a programming language, which increases programming rates.

Considering the previous problems as well as the reports generated by the tutoring system and the activities carried out by the tutors, it was necessary to modify the integrating system to take into account institutional regulations, a procedure that guides the flow of information between the different actors and processes; a training program for tutors and mentoring coordinators; and to improve the existing software so that it contains the activities carried out by the tutor and the necessary evidences for evaluation. This constitutes a resource to detect, attend, follow up and try to solve some problems and needs of students for their integral training.

For all of the above, there is a need to have a tutor with greater competences to strengthen both the academic career of students and their own integral development. This figure will be a support in decision making for the selection of learning units that integrate their curriculum and to strengthen individual and group work strategies during their school career.

Restructuring of the tutoring system

Some points for the renewal of the tutoring program are mentioned below, which include the general guidelines, alternatives to be performed and the functions of the tutor, which are integrated in the modified computer system.

Figure 1 shows the lines that follow the academic tutoring program.

Figure 1. Líneas generales de Tutoría Académica.



Fuente: Elaboración propia

Alternatives to Academic Tutoring

The program also makes a difference between academic counseling and tutoring. The first consists of consultations provided by a teacher (consultant) outside of what is considered his / her teaching time to solve doubts or questions on specific subjects that dominates, either to a student or to a group of students (ANUIES, 2001). On the contrary, tutoring is the teaching method by which a student or a group of students receive personalized and individualized education from a teacher. It consists of the systematic orientation provided by a teacher to support a student's academic progress according to their particular needs and requirements (ANUIES, 2001).

There are several types:

Individual tutoring. Personalized attention to the student by the tutor who assists him during his academic career.

Group tutoring. Attention to a group of students with affinity in characteristics, interests and general problems.

Peer tutoring. It consists of students who will teach others to solve a problem or complete a task. The application of this type of tutoring is to take advantage of the abilities of outstanding students through an academic mentoring program.

Academic tutor

It plays an important role, as it supports students to stimulate their decision-making and problem-solving skills. Therefore, the tutor must have the necessary tools to detect the attitudes and aptitudes of the students to contribute to their integral formation.

Because of the above, the tutoring should link diverse instances and people who participate in the educational process. Table 1 shows the functions of the tutor and the activities to be performed.

Table 1. Funciones generales del tutor.

Funciones	Actividades a realizar
Verificar la situación integral en la que los tutorados se encuentran, de tal manera que se elabore un perfil identificando las principales necesidades e intereses del alumno.	a) Entrevista a los tutorados. b) El tutor es el responsable de realizar el diagnóstico de cada tutorado asignado, consultando el sistema de información respecto a: Estudio Socioeconómico Trayectoria Académica Resultado del EXANI
Elaborar el plan de trabajo específico con acciones y estrategias acorde al perfil de cada tutorado y en respuesta al diagnóstico.	Programar las actividades y metas orientadas a mejorar la condición del estudiante, indicando las medidas y estrategias de atención que desarrollará en diferentes instancias.
Evaluar los logros obtenidos durante el periodo escolar.	Elaborar el reporte final, donde se describe el avance académico de los tutorados. Verificar las evidencias de las actividades tutoriales Realizar recomendaciones para el seguimiento de los tutorados, con el soporte de un expediente en físico o digital.

Fuente: Creación propia

Below are the specific functions to be performed by the tutor in relation to the restructuring of the tutoring system.

Table 2. Funciones específica del tutor.

Funciones específicas	Actividades
<p>Promover competencias básicas comunicativas, de aprendizaje, razonamiento, socialización, autoestima y culturales.</p>	<ol style="list-style-type: none"> 1.-Capacitar a los alumnos en habilidades de lectura y escritura, así como en procesos de comunicación oral y escrita, y de aprendizaje. 2.-Realizar actividades para desarrollar la creatividad, toma de decisiones y solución problemas 3.-Desarrollar e instrumentar estrategias de aprendizaje y técnicas de estudios para favorecer el aprendizaje significativo de los alumnos 4.-Organizar actividades en las cuales los estudiantes fortalezcan actitudes encaminadas a la práctica de estilos de vida saludable, al desarrollo sustentable, la cultura cívica, la responsabilidad social, el humanismo y el bienestar común. 5.-Involucrar a los alumnos en actividades que desarrollen su sentido de responsabilidad individual y colectiva, de autoestima, autocontrol y sociabilidad. 6.-Impulsar la participación de los alumnos en actividades artísticas y culturales como complemento de su formación integral.
<p>Desarrollar capacidades que contribuyan a la empleabilidad pertinente y oportuna.</p>	<ol style="list-style-type: none"> 1.-Reforzar la capacidad de los estudiantes para planificar y administrar el tiempo y los recursos humanos y materiales 2.-Conducir a los alumnos al desarrollo de habilidades, destrezas y actitudes para el trabajo en equipo, promoviendo la vocación de servicio, liderazgo, negociación y cumplimiento de metas, en los distintos ámbitos del desempeño profesional. 3.-Habilitar a los estudiantes en el uso de las TIC para la búsqueda, análisis y sistematización de la información que les

	<p>permita adquirir nuevos conocimientos y que favorezca una empleabilidad pertinente</p>
<p>Asesorar inscripciones que integren el desempeño escolar y el plan de estudios</p>	<p>1.-Asesorar la inscripción oportuna, con carga académica viable, equilibrada y pertinente</p> <p>2.-Apoyar la solución de problemas académico-administrativos para facilitar la inscripción</p> <p>3.-Guiar la elección e inscripción de cursos en períodos intensivos.</p>
<p>Facilitar la integración escolar y promover el uso de programas y servicios institucionales.</p>	<p>1.-Identificar alumnos en condición vulnerable y facilitar su participación en programas de apoyo institucional.</p> <p>2.-Divulgar la normatividad relativa a la permanencia académica.</p> <p>3.-Brindar información sobre procesos y trámites de las dependencias de apoyo al estudiante.</p>

Fuente: Creación propia

As can be seen in Table 2, the activities proposed for the tutor to carry out are aimed at solving the problems detected in the students. These activities will be added to the tutoring system to be recorded and validated. This will minimize the lag and the failure rate of the students.

In addition, the following activities are also contemplated: reinforcing learning to avoid reprobation and dropping out of school, promoting and improving academic preparation and professional progress, and reinforcing learning to avoid reprobation and dropping out of school.

Results

Once the tutoring system has been restructured and this is according to the detected needs of the students the following will be done:

Provide the tutor of each group with their login and password to allow them to manage the system.

At the beginning of the semester, the tutor will enter the system and capture the tutorial action plan for the current period.

The first thing to do is the diagnosis, in which it is suggested to consider the academic background of the students (it is possible to consult the academic trajectory of the system), as well as study habits and school practices. Subsequently it will be possible to establish the risk areas and the classification of the students with whom it will be working (Students without risk, low risk, medium risk and high risk), which will establish a plan of action according to the needs of each group of tutors.

Once the diagnosis has been made, the general objective of the tutoring plan as well as the particular objectives will be presented, specifying the follow-up activities and the actors who will also provide support.

Next, the activities to be carried out will be defined, considering the diagnosis. Activities are selected from those specified in Table 2.

Finally, the goals will be determined based on the needs and priorities for the current period.

The indicators have moved little but only one semester has been worked with the system. From them have been implemented actions as: reading circles; disciplinary assessments of different areas with priority in mathematics and programming; the program of academic mentoring was established, which consists in that students with the best averages and of high semesters support to their companions, with academic problems; further advice was provided for the enrollment of students and channeled students for specialized care.

Validation of activities

In the tutoring system, students' grades can be accessed. It also has warnings indicating their situation, if they are at risk, if they are irregular, number of failed tests, general average, if you are taking a learning unit a second time, among other factors. With the above information will be made the decision making for the strategies to follow.

To develop the tutoring activity, tutors must receive prior training that provides them with the minimum knowledge and skills to perform the tutorial activity, as well as the management of the system.

The tutoring activity constitutes a substantive function of the teaching activity, so it should be recognized as such and properly evaluated in the program to stimulate teacher performance.

The evaluation of the tutoring program should be reflected in the decrease of the delay, desertion and the increase in the terminal efficiency index.

Conclusions

Academic tutoring is one of the fundamental strategies, in the new vision of higher education, an instrument that can enhance the integral formation of the student with a humanistic and responsible vision. As a modality in teaching practice, it does not replace teaching in front of a group, but rather complements it. As an instrument of change, it will be able to reinforce the programs of integral support to the students in the academic, cultural and human development field in the search of the individualized attention of the student in the formative process.

The use of student-centered models and orientation to learning are the requirements for the transformation of HEIs. Tutoring is a resource for speeding up the process. However, making the decision to use it and take advantage of its potential requires training and collaboration from the different university actors.

It is necessary to modify the current educational paradigm, one in which the formation of students is integral, that is, develop values, attitudes, skills, skills and significant learning. To do this, it is necessary to change the role of the knowledge transmitter teacher to the facilitator, counselor, tutor or advisor of the students, in order to have a comprehensive education and enable him to work in the world of work.

The incorporation of the tutoring in the academic activities of the institutions requires the construction of an institutional program of academic tutoring. It is necessary to establish the objectives and intervention models. As well as establishing the needs that constitute the tutoring and the set of activities essential for a formative process of quality.

Through the tutorial action, the practice of teaching is revitalized for several reasons: the teacher plans the tutoring according to the specific situation of the student, which confronts him with realities and needs that must be addressed or channeled through teaching strategies specific. From this, new contexts and opportunities for learning are generated (Díaz Villa, 2002) of the student and the tutor. The tutoring inserts in flexible modalities of school organization and curricular advance, multiplies the specific profiles of possible exit, as well as the career and life plans to which the student can aspire.

The tutorial action helps to integrate knowledge and experiences of the various factors that influence the student's academic performance, which broadens the pupil-teacher relationship, beyond the specific contents of a subject, or the group dynamics that in the classroom can be generated.

When restructuring the tutoring program, it is intended that with the follow-up to the tutorial activities, the failure and lag rates will decrease.

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