Capacitación docente del Programa Institucional de Tutorías en un ambiente virtual de aprendizaje

Teacher Training of the Institutional Program of Tutorials in a Virtual Learning Environment

Formação de professores do Programa Institucional de Tutoriais em um ambiente virtual de aprendizagem

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Resumen

El propósito del presente estudio fue evaluar la capacitación docente que ofrece el Programa Institucional de Tutorías (PIT), el cual ha sido diseñado en un ambiente virtual de aprendizaje en una universidad del sureste de México. En tal sentido, la investigación fue de corte cuantitativo con un diseño de tipo transeccional cuasiexperimental con grupo único. La muestra estuvo compuesta por 25 tutores (hombres y mujeres de nacionalidad mexicana cuyas edades oscilaban entre 25 y 50 años) y por 100 estudiantes-tutorados de nivel universitario. Ambas muestras no probabilísticas de participantes se determinaron mediante la técnica censal. Para recolectar lo datos se empelaron tres instrumentos: dos dirigido a los tutores y uno a los tutorados. Parte de los hallazgos obtenidos plantean que el mencionado programa ha sido pertinente, pues se cumplió con los objetivos de aprendizaje establecidos y se logró satisfacer las expectativas de los participantes, lo cual se evidencia en un incremento estadísticamente significativo en el dominio conceptual de los tutores. En lo referente a la variable sensibilización de los tutores, se concluye que el curso de capacitación contribuyó a que estos modificaran sus procesos de atención a los tutorados, pues se consiguió generar una mayor empatía y atención en sus entrevistas. En síntesis, el curso fue

valorado por los participantes con una calificación general de 86.5 en una escala del 0 al 100.

Palabras clave: capacitación, diseño instruccional, tutoría.

Abstract

The purpose of this study was to evaluate the teacher training offered by the Institutional Tutorial Program (PIT), which has been designed in a virtual learning environment at a university in southeastern Mexico. In this regard, the research was quantitative with a transectional quasi-experimental design with a single group. The sample consisted of 25 tutors (men and women of Mexican nationality whose ages ranged between 25 and 50 years) and 100 students-tutors of university level. Both non-probabilistic samples of participants were determined by the census technique. To collect the data, three instruments were used: two directed to the tutors and one to the tutors. Part of the obtained findings suggest that the aforementioned program has been relevant, since the established learning objectives were met and the expectations of the participants were met, which is evidenced by a statistically significant increase in the conceptual domain of the tutors. Regarding the variable sensitization of the tutors, it is concluded that the training course contributed to these modifying their processes of attention to the tutors, since it was possible to generate greater empathy and attention in their interviews. In short, the course was rated by the participants with a general score of 86.5 on a scale of 0 to 100.

Keywords: training, instructional design, tutoring.

Resumo

O objetivo deste estudo foi avaliar a formação de professores oferecida pelo Programa Institucional de Tutorial (PIT), que foi projetado em um ambiente virtual de aprendizagem em uma universidade no sudeste do México. A esse respeito, a pesquisa foi quantitativa, com delineamento quase-experimental transicional com um único grupo. A amostra foi composta por 25 tutores (homens e mulheres de nacionalidade mexicana cuja idade variou entre 25 e 50 anos) e 100 alunos-tutores de nível universitário. Ambas as amostras não probabilísticas dos participantes foram determinadas pela técnica censitária. Para coletar os dados, foram utilizados três instrumentos: dois direcionados para os tutores e um para os tutores. Parte dos achados obtidos

sugere que o referido programa tem sido relevante, uma vez que os objetivos de aprendizagem estabelecidos foram atendidos e as expectativas dos participantes foram atendidas, o que é evidenciado por um aumento estatisticamente significativo no domínio conceitual dos tutores. Em relação à variável sensibilização dos tutores, conclui-se que o curso de formação contribuiu para que estes modificassem seus processos de atenção aos tutores, uma vez que foi possível gerar maior empatia e atenção em suas entrevistas. Em suma, o curso foi avaliado pelos participantes com uma pontuação geral de 86,5 em uma escala de 0 a 100.

Palavras-chave: treinamento, design instrucional, tutoria.

Introduction

The tutorial action is a process by which a tutor and a student maintain a close relationship that allows them to identify, analyze and solve problems that affect the student's learning, which range from the cognitive (eg, self-perception of the individual in relation to their intellectual abilities) to the emotional level (eg, motivation of the tutor to reach their academic goals) (Arias, 2015). For this reason, it is essential that the tutor is trained to provide support that allows the student to achieve the best rates of retention and terminal efficiency (National Association of Universities and Institutions of Higher Education [Anuies], 2003).

In this sense, the purpose of the present study was to develop a methodological design -to the model of Kirkpatrick and Kirkpatrick (2006) - to evaluate the impact of teacher training that is carried out in the Institutional Tutoring Program, which has been designed in a virtual learning environment in a university in southeastern Mexico, it is carried out in person, either individually (if the student requires support or advice on specific topics) or group, in order to develop activities that generate an integral growth. To keep track of the tasks carried out, the University's website has the Institutional Tutorial System (SIT web), which allows registering individual and collective sessions, consulting the student's card and specifying channels for the departments of support (that is, the psycho-pedagogical, social service and scholarships). This tutoring service is offered to all

students, who are assigned to the full-time teachers that make up the academic floor.

Background and justification

Currently, national organizations recognize the need for teacher training, which they see as a tool to ensure educational quality and as an opportunity to meet international requirements and standards. In fact, and due to the new academic and professional demands of a globalized world, in recent decades universities have shown an increasingly growing interest in the training of their human resources, so they devote a lot of attention to training as a means of propeller of the institutional progress and as a complement of the changes to promote institutional restructurings both administratively and academically (Ospina, 2016). The primary objective of this training of the academic plant in the educational institutions is the promotion of the different teaching competences raised by Unesco, which requires a considerable emphasis in the design, development and implementation of the courses directed to that sector (Villar, 2016).

In accordance with this, in the document Trends V: Universities Shaping The European Higher Education Area poses important challenges for these houses of study in terms of training, especially with regard to tutorial services, which are vital not only to specify the processes of accreditation and certification of educational programs (Álvarez, 2012), but also to offer university staff an opportunity for personal and professional growth in order to improve their working conditions and their quality of life.

These advances and proposals in terms of tutoring and training, however, must be constantly evaluated to know and analyze their impacts on the student's training processes (Ruiz, Ruiz, Gamba, Castillo and González., 2017). A sample of this is the work of Ruiz Chaves (2011), who examined the training programs implemented since its creation until 2010 at the State Distance University (UNED) of Costa Rica to learn about the professional development of graduates of this House of Studies.

In the case of Mexico, the efforts that higher education institutions (HEIs) have made to consolidate the Institutional Tutoring Program can be rescued, although in practice an evaluation that can be considered objective and relevant with the contextual characteristics has not been achieved. from each university (García, Cuevas, Vales y Cruz, 2012). Specifically, the evaluation processes have focused on meeting the quality standards established by national and international

organizations, which tends to guide the teaching practice towards the achievement of that objective.

On the other hand, the inclusion and use of ICT in teaching practice require the development of academic competences in an integral way for both teachers and students. In other words, the need for online training for a better implementation of the institutional tutorial program is based on the need to diversify the modalities of academic improvement to bring the teaching staff closer to a comprehensive student education (Vela, Ahumada y Guerrero, 2017). In addition, when facing tutorial training in a virtual learning environment, it breaks with the traditional established scenarios, given that socialization and interaction are conceived as fundamental pieces in the process.

Study design

The present investigation was of quantitative type, with a transectional quasi-experimental design with a single group and implementation of pre-test and post-test (Hernández, Fernández and Baptista, 2010). Its scope was considered correlational, since an attempt was made to offer an explanation among the determined variables (the dependent variable was theoretical-conceptual knowledge of the tutorship and the independent variable was the instructional design of the course in the context of the university under study). To collect the data, three instruments were used: two directed to the tutors and one to the tutors. The criteria chosen to select the participants of each group are explained below, and the process followed in the elaboration of the instruments is described later.

Population under study

The identified population of tutors was composed of 192 teachers assigned to the seven higher education units of a university in southeastern Mexico, and their ages ranged between 25 and 50 years (men and women of Mexican nationality). The sample was determined as non-probabilistic or directed, using the census technique. The inclusion criteria of the participants were the following: 1) to be professors of the university, 2) to act as active tutors, 3) to have been assigned tutors at the time of the training, and 4) to have been qualified with an unfavorable performance in the Satisfaction surveys of the tutorial action made to the students. In contrast, the exclusion

criteria were: 1) knowing the PIT, 2) not having assigned tutors at the time of the investigation, 3) not wanting to participate in the study, 4) having been qualified with a favorable performance in the satisfaction surveys of the tutorial action taken to the students, and 5) not having taken the tutorial training course. This means that the tutors who did not complete the pre-test were not part of this study, as well as those who wished to abandon the research already started in the tutorial training course, or those who did not complete the pre-test and post-test instruments. Lastly, those who, having initiated the training, did not finish it were not selected either. The invitation to the participants of the course was issued by the Secretary of the Student Services Function through the Coordination of the Institutional Tutoring Program, as well as by the Secretariat of the Academic Function through the Directorate of Academic Improvement, prior to the compliance procedure for your participation in the study. In total, the final sample consisted of 25 tutors.

The second group of study subjects in this research was composed of students-tutors (adults of legal age, men and women of Mexican nationality) of university level whose sample was identified in a non-probabilistic or directed way, through the census technique. The criteria for inclusion of this group of subjects were the following: 1) to be assigned to a tutor in the institutional tutorial system, 2) to have regular student status, and 3) to attend tutorials three times a cycle at least. The students who were not taken into account were those who did not decide to participate in the investigation. In total, the sample consisted of 100 students-tutors.

Instruments

In this research, three instruments were applied to collect data (two for tutors and one for tutors), which allowed the researcher to approach the analyzed context objectively (Creswell, 2008).

Instrument 1: pre-test and post-test for tutors

The first instrument was applied to the tutors in pre-test and post-test format. The pre-test was prepared to inquire into the theoretical-conceptual knowledge they had about the tutorial process and about the management of the Institutional Tutoring Program. This instrument was designed based on the postulates of the Anuies (2003) and was composed of the variable theoretical-conceptual knowledge of the tutorial action with two indicators: knowledge of the

contextual framework of the program in adherence to the postulates of the Anuies and Knowledge of the vision, institutional objectives and profile to be a tutor. And the second variable Management of the Institutional Program of Tutorials with two indicators: knowledge, domain and application of the tools and strategies generated for the implementation of the PIT and the knowledge and development of the functions of the tutor (table 1):

Tabla 1. Variables, indicadores y dimensiones del aspecto teórico-conceptual y práctico de la tutoría

Variables	Indicadores	Dimensiones	N.° de ítems
Conocimiento teórico-conceptual de la acción tutorial	Conocimiento del marco contextual del programa en apego a los postulados de la Anuies	Conceptualización de la tutoría	4 ítems
	Conocimiento de la visión, objetivos institucionales y perfil para ser un tutor	Objetivo y función de la tutoría	4 ítems
		Perfil del tutor	2 ítems
Gestión del Programa Institucional de Tutorías	Conocimiento, dominio y aplicación de las herramientas y estrategias generadas para la implementación del PIT	Herramientas de apoyo para el desarrollo de la tutoría	1 ítem
	Conocimiento y desarrollo de las funciones del tutor	Función del tutor	18 ítems

Fuente: Elaboración propia

The reagents that constituted this instrument were of a dichotomous nature, although the last question was raised from a recurrent real case in the tutorial task identified by the Institutional Coordination of Tutorials of the institution where the research was developed. For the presentation of this case, fictitious names were used in order to protect the identity of the tutor.

After applying this pre-test, we proceeded to offer a tutorial training course, which was given with the support of the Institutional Coordination of Tutoring and the Direction of Academic Improvement as part of the Institutional Training Workshop. The course was called Strategies for Action Tutorial and was taught in the distance mode. It was designed in accordance with the pedagogical approach proposed by the Institutional Department of Distance Education managed

by the university under study, which is based on the Acalán educational model and the Teacher Training Program of the Universidad Autónoma del Carmen (2011). The proposed objective was to ensure that tutors develop their capacities to serve as academic guides for tutors, through the care and monitoring of their academic trajectories and assertive communication in different social, cultural, academic and work contexts. The course lasted 20 hours and the topics addressed were the following: 1) Institutional Tutoring Program, which was constituted by these topics: background of the tutoring systems, overview of the postulates of international organizations, development of tutoring in Mexico in adherence to the proposal of the Anuies, and academic record and its importance; 2) strategies for the tutorial action, which focused on the definition and importance of the functions of a tutor.

In the learning sequence of the course taught, the tutors-participants developed three comparative tables as activities: the first one to differentiate the different concepts on tutorials managed by higher education institutions; the second to describe the similarities found between the Anuies and the institution under study in relation to the tutoring functions, and the third to indicate the advantages and disadvantages of the cognitive strategies proposed in the readings assigned in the course. In addition to these tables, the participants created two cognitive maps: one on the Anuies literature and its proposal for Institutional Tutoring Programs, and another on cognitive strategies to support the tutorial action. For the evaluation of this course the following criteria were taken into account: identification of the frame of reference of the Institutional Program of Tutorials and capacity to problematize in attachment to the tutorial action in different scenarios.

The post-test was made up of the same content as the pre-test, although its objective was to identify the degree of knowledge that the tutors obtained after having completed the training (Creswell, 2008). This was applied in a self-administered manner, since it was published on the course platform.

Instrument 2: satisfaction of the tutors with the training course

In addition to the first instrument (pre-test and post-test), another was used to learn the participants' perception of the tutorial training course. This instrument was applied for the second time (specifically a month and a half after the course was implemented) with the support of the tutoring coordinators and with the purpose of identifying if there had been any favorable impact of

the course in the real context where the tutorship takes place. . The instrument in question was developed in accordance with Kirkpatrick's formative actions model and consisted of 26 reagents that included the following criteria: level of education, requirement, compliance, didactic material and motivation capacity in the students. The data collected were emptied into the statistical program SPSS to try to identify the relationship of the variables.

Instrument 3: students' perception of the performance of tutors

The third instrument used in this research was applied to students who regularly attend tutorials to know their perceptions about the performance of tutors. This was designed based on the postulates of the Anuies (2003), and consisted of 12 items with a Likert scale. For its application, as with the instrument of the tutors, support was requested for the coordination of tutoring.

Validity and reliability of the instruments

For the validation of content and construction of the instruments, an expert council was used, which made two revisions before applying the piloting that served to establish the reliability. This last process was carried out with a sample of 18 full-time professors who met the inclusion criteria. In the first phase of this test, which was determined by the Kuder-Richardson formula 20 test (known as KR20), the results obtained were low for the reliability of the instrument with 0.49534279 establishing as high of 0.8-1, acceptable of 0.6 -0.8, regular of 0.4-0.6 and low of 0.2-0.4. However, in the second application for piloting -applied again to 18 teachers- the instrument was modified and 8 open questions were left; later, in the application of the KR-20 technique an acceptable correlation was established in the minimum range of 0.70, which based on the consistency of responses to all the items was .7968, as mentioned by Aiken (2003):

> When a test is going to be used to determine if the average scores of two groups of people are significantly different, a reliability coefficient of 0.60 to 0.70 may be satisfactory. On the other hand, when the test is used to compare the qualification of one person with the other, or the qualification of a person in a test with its qualification of another instrument, a reliability coefficient of at least 0.85 is needed to determine if differences small in the ratings are significant (pp. 89-90).

On the other hand, the instruments 2 and 3 used to know the perception of the participants on the tutorial training course as well as the perception that the students have about the performance of the tutors were validated by expert advice. This council was integrated by three experts in training and tutoring that are developed professionally in the areas of Academic Overcoming and the Institutional Coordination of Tutoring of the university in which the study was developed.

Results

For a better organization of the results and their analysis, the variables used for the integration of the first instrument, that is, theoretical-conceptual knowledge of the tutorial action and management of the Institutional Tutoring Program, are summarized below. In this sense, the following research question was posed: does the implementation of a training course in a virtual learning environment increase the awareness of the tutors in the process of tutorial training with the students in a university in southeastern Mexico? To answer this question, the results were analyzed taking into account a nominal scale that allowed to relate the perception of the tutors about the behavior of the tutors before and after they took the training course. This variable was measured by the perception of students in pre-test and post-test phases. Its operationalization was sought to determine in the high sensitivity range 100% to 67%, medium sensitivity 66% to 34% and low sensitivity 33% to 0%.

The second research question was the following: is there a correlation between the increase in attention to the tutorates (if any) and the training course for tutors in a virtual learning environment? To answer this question, an ANOVA test was applied, which allowed to link the attention that the tutors received from their tutors with the result of the post-test that was applied at the end of the course. On the other hand, to achieve the measurement of the attention variable the following scale was used: good attention from 100% to 67%; acceptable attention from 66% to 34%, and low attention from 33% to 0%.

Training course

In relation to the assessment of the 25 participating tutors on the realization of a tutorial training course in a virtual learning environment, it can be said that 96% agreed and strongly agreed. Likewise, regarding the work methodology presented by the course facilitator (related to time and form), 88% of the tutors expressed a favorable opinion, 8% said they did not agree or disagree,

and 4% were in disagreement. Likewise, regarding the fulfillment of the learning objectives of the course, the percentages were identical to those obtained in the previous criterion, that is, 88% said they agreed, 8% said they did not agree or disagree, and 4 % disagreed

On the other hand, 80% of the participants considered interaction in the virtual learning environment to be good, while 12% said they did not agree or disagree with what was proposed. In addition, 84% conceived as favorable the materials used in the course (texts, videos, hypertexts), since they served to achieve the learning objectives. Also, 84% said that the programmed activities responded pertinently to the learning objectives, while 16% did not agree or disagree with the approach. Regarding the relevance of the assignments (eg, readings, documentation work, concept maps, comparative tables, forums, etc.), 84% thought favorably, while in relation to the sources of information used, 88% conceived them as updated and relevant to the established goals.

Now, regarding the first variable indicated above (that is, theoretical-conceptual knowledge of the tutorial action), the pretest of the training course was constituted by 10 items, which were presented to the 25 participating tutors; the results were the following: 32% of the tutors answered 5 items correctly, 28% had 3 correct answers, 20% got 4 correct answers, 12% obtained 6 correct answers, and 8% achieved 7 correct answers. On the other hand, on the second variable (management of the Institutional Tutoring Program), the pretest was made up of 19 items; the findings were these: 4% of the tutors got 13 hits, 16% hit 12 hits, 24% got 11 hits, 20% got 10 hits, 8% hit 9 hits, and 28% had 8 hits.

In contrast to the previous results, in the post-test (also of 10 items) a change was observed in the results obtained in the first variable (theoretical-conceptual knowledge of the tutorial action), since it was found that 4% of the participants obtained 8 hits, 4% got 9 hits, 24% hit 5 hits, 24% got 6 hits, 24% got 7 hits, 12% hit 4 hits and 8% got 3 hits. Also, as for the second variable (management of the Institutional Tutoring Program) in the post-test phase (also of 19 items) these results were found: 4% of tutors got 17 hits, 4% reached 16 hits, 16% had 15 hits, 12% got 14 hits, 28% got 13 hits, 16% got 12 items, 8% got 11 hits, 4% had 10 hits and 8% got 9 hits. Taking into account the figures of these pre-tests and post-tests, it can be assured that there was an increase in the successes of the participants thanks to the content developed in the training course.

Likewise, an analysis of the most relevant dimensions of the study was carried out with the

Pearson r technique. For this, the statistical program SPSS, version 2.0 was used. In this sense, it is inferred that among the instruments applied in data collection (knowledge of the tutor, perception of the tutor in relation to the training course and perception of the tutor in relation to the performance of the tutor) there is no significant relationship, as shows in table 2.

Tabla 2. Correlaciones entre las dimensiones de estudio con la técnica r de Pearson

		Con tutor	Percepción	Herramientas del tutor	Perfil del tutor	Percepción del tutorado	
						De las funciones del tutor	Del dominio de las herramientas
Con tutor	Correlación de Pearson	1	-0.334	0.039	.427*	-0.262	-0.253
	Sig. (bilateral)		0.103	0.853	0.033	0.205	0.223
	N	25	25	25	25	25	25
Percepción	Correlación de Pearson	-0.334	1	0.142	-0.009	.929**	.759**
	Sig. (bilateral)	0.103		0.498	0.966	0.000	0.000
	N	25	25	25	25	25	25
Herramientas del tutor	Correlación de Pearson	0.039	0.142	1	-0.26	0.083	0.145
	Sig. (bilateral)	0.853	0.498		0.209	0.693	0.49
	N	25	25	25	25	25	25
Perfil del tutor	Correlación de Pearson	.427*	-0.009	-0.26	1	0.003	-0.097
	Sig. (bilateral)	0.033	0.966	0.209		0.987	0.645
	N	25	25	25	25	25	25
Percepción del tutorado							
De las funciones del tutor	Correlación de Pearson	-0.262	.929**	0.083	0.003	1	.776**
	Sig. (bilateral)	0.205	0.000	0.693	0.987		0.000

	N	25	25	25	25	25	25
	Correlación de Pearson	-0.253	.759**	0.145	-0.097	.776**	1
Del dominio de las Herramientas	Sig. (bilateral)	0.223	0.000	0.49	0.645	0.000	
	N	25	25	25	25	25	25

Notas. *La correlación es significativa en el nivel 0.05 (dos colas). ** La correlación es significativa en el nivel 0.01 (dos colas), N = Número de participantes en el estudio.

Fuente: Elaboración propia

From the figures shown in Table 2, it can be affirmed that there is no significant relationship between the knowledge that the tutor has of their functions, the support tools and the perception that the student has about the performance of the tutor in those same indicators. . In fact, the most significant relationship shown is in the perception of the tutor on the tutor's role dimensions and support tools.

Discussion

The approaches outlined below are organized according to each research question.

Mentoring processes

Is there statistically significant increase in the attention provided by tutors to their tutors after taking a tutorial training course using a virtual learning environment as opposed to those who did not take the course? According to the results obtained, it can be affirmed that the offered course fulfilled the established learning objectives and was able to satisfy the general expectations of the participants. In fact, there was a statistically significant increase in the conceptual domain of the tutors before and after taking the tutorial training course using a virtual learning environment. In this sense, the Student t results show the value of significance less than 0.05 (0.000 <0.05), with a confidence level of 95%.

Training processes

Is there a relationship between the increase of attention to tutors (if any) and the training course for tutors in a virtual learning environment? The data collected serve as support to point out that, using the Pearson r technique, a level of correlation of -139 and a level of significance of .508 was obtained, which indicates that there is no relationship between the results obtained by the tutor in the course and the degree of perception that the student-tutor has of its performance, this with a level of reliability of 95%. On this element it is necessary to specify that although no significant relationship was found between these two dimensions, changes could be found in the attention of the tutors towards the tutors. This could have happened because the teachers had a decrease in their workload, which possibly allowed them to have more time to develop their tutoring functions. Likewise, it was verified that the trained tutors developed in their interviews in the post-test phase a more consolidated trust environment with their tutors, this within the framework of respect and collaboration.

Evaluation of the training course

In relation to the level of teacher satisfaction -and based on the model of Kirkpatrick and Kirkpatrick (2006) developed in the 1950s, which focuses on the evaluation of four levels: reaction, learning, behavior and results (Rodríguez, 2017) - the tutors valued the design of the course, given that the presentation of the material and the work methodology, as well as the evaluation and accreditation criteria, were fulfilled. Likewise, the participants considered that the advisor demonstrated mastery of the topics developed and updated in the exposed contents, which led to attention and interest in the course. On this aspect, it is necessary to notice that these training processes at the national level are rarely evaluated, so that the impact they have had on the academic trajectories of tutors and tutors can not be known.

Conclusions

In spite of the low correlation that existed between the study dimensions, attention to the tutors and training course for tutors in a virtual learning environment, it can be concluded that the training course had a favorable impact on the participants, especially in the domain Theoretical-conceptual of the functions that a tutor must fulfill. In this sense, it can be emphasized that this intervention program contributed to the sensitization of the participants in relation to their processes of attention to the tutors, since greater empathy and attention was obtained in their interviews with the tutors.

These positive results agree with the evaluation of the general aspects of the course, since 96% of the tutors expressed their satisfaction for the designed program, 88% favorably rated the implemented work methodology, 88% indicated that the proposed objectives had been met , 80% considered that the interaction was positive, 84% considered the design and support of the materials relevant, and 88% acknowledged the updated use of the information sources. In short, the course was rated by the participants with a general score of 86.5 on a scale of 0 to 100.

Limitations of internal and external validity

One of the main limitations had to do with not being able to count on a control group, so that the results obtained could not be contrasted. In addition, the participants were not chosen at random, which makes generalization impossible. Likewise, the instruments used were not standardized and it was not possible to have a multidisciplinary sample of all the dependencies that made up the institution under study. For this reason, we still need to know what is the situation of the tutors of the different disciplinary areas. Consequently, the interpretation of the results is limited to the national level, specifically to the tutoring program of the institution under study, although it is worth noting that the general design of this work can be adapted to other tutoring programs of higher education institutions that are based on the proposal of the Anuies.

On the other hand, and regarding the process of tutorial action, it should be noted that this practice is multifactorial, so the results found cover only a part of the various dimensions that interfere in the processes of university education. This opens a field for future research, which could focus on identifying the degree of impact of tutoring on student performance from different variables, for example, cost-benefit of tutoring programs in the last decade and comparative

analysis. of the tutorial function between the institutions of higher education homologous.

Recommendations

From mentoring

Although the progress made to date has been important in terms of student service, there is still a need for greater coverage and promotion of the tutorial procedures inside the academic plant. Another factor that can be taken as a variable that is not considered, and that could have represented a change in the attention of the tutors, has to do with the additional demands that the tutorial process demands of the full-time teachers, who must also meet with other activities related to teaching, research and management or collegiate work.

From the training

Although the training processes in our country have been positioned as an important tool for the growth of educational institutions, there is still an area of opportunity for improvement that involves monitoring this function to assess the impact of the activities developed by the tutors who have been trained. In this sense, there is still a need to develop objective and pertinent evaluation mechanisms within the context of each higher education institution, since that way it will be possible to have a more precise vision of the projects that could consolidate the Institutional Tutoring Program. Likewise, it is essential to encourage the real commitment of the teacher-tutors to achieve the optimal functioning of the training programs, which will have a positive impact on the area of work performance.

Acknowledgment

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