MEASURING THE IMPACT OF AN INNOVATIVE EDUCATION PROGRAM IN AN ACADEMIC INSTITUTION FROM A PUBLIC UNIVERSITY IN MEXICO

Juan Ignacio Barajas-Villarruel, Ed. D.
Universidad Autónoma de San Luis Potosí,
Facultad de Contaduría y Administración. Madero, San Luis Potosí, México

Abstract
Since the implementation of the Innovative Education Program (PIEFCA in Spanish) in a public university in Mexico, it had not been assessed in terms of strengths, weaknesses and technological needs for the end users. Bearing that in mind, it was established that a research project was required in order to assess the degree to which its goals had been achieved.
Three strategies were used to answer the research questions. Firstly, a content analysis was carried out. Then, a session was conducted with a focus group and lastly, they were asked to do a survey. The sample was probabilistic, with a total of 168 teachers. School authorities and other employees participated as well.
Results indicate that one of the main strengths of the program is the people who work in it. On the other hand, one of the weaknesses was a shortage in staff to meet the needs of all the users. It is concluded that teachers evaluated the services offered by PIEFCA positively.)

Keywords: Evaluation, Innovation, ICT

Introduction
The main institutions dedicated to higher education, both public and private, are organized in the National Association of Universities and Higher Education Institutions (ANUIES in Spanish). Within their mission, one of the goals for this association is to establish quality standards for the processes of planning, evaluation and accreditation of higher education (ANUIES, 2013). In this context, quality is defined as the efficiency in processes, reliability in results and the ability to meet society's demands and expectations congruently and pertinently. Although this ideal is never fully

achieved, it constitutes a permanent checkpoint for reasoning and search for its members (ANUIES, 2006).

Within this context, the Mexican public university where this research was carried out is a member of the association ANUIES. The school is located in central Mexico and according to the school dean Villar (2013), it offers 86 undergraduate programs to 24,763 students under the support of 3,462 teachers. It is worth mentioning that out of the 86 programs, 39 have been accredited under the national standards for good quality programs recognized by the Higher Education Accreditation Council (COPAES in Spanish).

Furthermore, in May 2014, the University published the Institutional Development Plan for the years 2013 to 2023 (PIDE 2013-2023). This plan aims to guide the steps taken by the faculties, schools and institutes at this University (UASLP, 2013). The plan is made up of a series of programs and specific strategies, in line with the concept of quality before mentioned in terms of ANUIES. The strategies in the PIDE plan with concrete relation to the research were: (a) strategy 3.8. Increase the use of virtual platforms and technological instruments used for academic processes at university facilities; (b) strategy 8.7.8. Strengthen assessment and follow up schemes of academic programs in terms of operation and outcomes; and (c) strategy 9.1.1. Improve and innovate the teaching practice (UASLP, 2013).

As far as the Accounting and Management Faculty (FCA in Spanish), is the academic venue from the Mexican public university, which hosted the research project. It offers five undergraduate programs for a student population of 3700 supported by 268 teachers (Villar, 2013). It is important to point out that at present, four out of the five programs hold the National Accreditation for Good Quality recognized by the Higher Education Accreditation Council (COPAES in Spanish).

Moreover, the faculty established the current academic program in 2006 (Facultad de Contaduría y Administración, 2006). As part of the goals set by the Curriculum in the year 2008, an Innovative Education Program was implemented at the Accounting and Management Faculty (PIEFCA). This was done in order to provide training and support to the academic staff in the use of Information and Communication Technologies (ICT) to enable them to generate more innovative materials in their teaching context. (Facultad de Contaduría y Administración, 2008).

Within this context, a thorough evaluation has never been done to measure the impact this Innovation Program has had. More specifically, its virtues and flaws are unknown, as well as the degree to which the teachers ICT needs are met.

Problem

For this project, the evidence that supports the assessment needs of the Innovative Education Program at the FCA is as follows: (a) assessment for PIEFCA on behalf of the Follow-up and Evaluation Commission at the Accounting and Management Faculty (CSEFCA in Spanish) (Díaz and Benítez, 2009); (b) a recommendation to assess the program, issued by the Accreditation of the Teaching of Accounting and Management Council (CACECA) the end of 2012; and (c) aiming to fulfill a goal established in the Development Program PIDE 2013-2023 at the university which hosted this research project, in order to strengthen follow-up and assessment of academic programs just like PIEFCA.

In sum, the problem to be analyzed is that the PIEFCA has never been evaluated. That is, that the accuracy of the program towards reaching its goals has not been assessed. In more detail, the strengths and weaknesses of the PIEFCA have not been determined. It has never been established how the PIEFCA is meeting the needs of teachers in terms of ICT use.

Object of the Investigation

In order to determine the impact of the Innovative Education Program at the Accounting and Management Faculty (PIEFCA) in a Mexican public university, it aimed to measure the efficacy of goal fulfillment. Particularly, it was important to pinpoint the strengths and weaknesses, its quality and how it was measuring up to the teachers' needs towards ICTs.

Theoretical-conceptual Framework

Innovative Education. Rivas (2000) defined innovative education, as a "deliberate action to incorporate something new to the academic institution, resulting in an efficient change in structure or operations, which improves the outcomes according to the extent in which the academic goals are fulfilled." (p. 31). This relates to the PIEFCA assessment as follows:
1. Deliberate action: this term was proven when the school authorities at the Accounting and Management Faculty in a Mexican public university decided to implement the PIEFCA.
2. Incorporate something new to the academic context at the institution: this element is presented when PIEFCA personnel provide support and training in ICTs to teachers, as well as the production of didactic materials to innovate in their practice.
3. Efficient change, improvement and goal fulfillment: given the fact that the changes produced since the PIEFCA was adopted are unknown, it is mandatory to evaluate PIEFCA systematically in order to measure the degree to which each goal has been fulfilled.

Evaluating Educational Programs. Stufflebeam y Shinkfield (1987) defined the evaluation of educational programs as:

> A process to identify, obtain and provide information that is useful and descriptive about the merit and worth of goals, plans, the execution and outcome of a specific object; to assist in decision making, solving problems responsibly and to promote understanding of the phenomena related to it. (p. 183)

Similarly, Castillo and Cabrerizo (2003), point out that program evaluation is considered an essential element to improve the quality of a system.

The aforementioned information relates to the PIEFCA assessment since the program evaluation required a systematic process whose purpose was to obtain useful and descriptive information about the outcome. This aimed to serve as a guide for authorities to be able to make decisions regarding PIEFCA's needs and weaknesses, in line with Stufflebeam y Shinkfield's (1987) definition. In relation to Castillo y Cabrerizo's hypothesis (2003), PIEFCA's evaluation is a requirement to guarantee quality services offered to teachers.

Research Questions

Three questions were raised during this research project:

1. Which are the strengths and weaknesses of the Innovative Education Program at the Accounting and Management Faculty (PIEFCA)?
2. How do teachers evaluate the Innovative Education Program at the Accounting and Management Faculty (PIEFCA)?
3. What are teachers' needs towards the use of ICTs within the Innovative Education Program at the Accounting and Management Faculty (PIEFCA)?

Methodology

Participants. Target population was taken from two groups: (a) teachers and (b) personnel from the Innovative Education Department (DIE in Spanish). From the first group, 268 teachers, a random probabilistic sample was chosen (Hernández, Fernández-Collado and Baptista, 2009). The sample consisted on a total of 168 teachers. The group taken from DIE was integrated by: (a) two coordinators, (b) two systems analysts, and (c) two programmers, for a total of six people.

Instruments. In order to determine PIEFCA's strengths and weaknesses, a Discussion Guide coded as GD1 was used, as part of the research technique Focus Group (Amezcua and Jiménez, 1996). To validate the Discussion Guide GD1, two types of construct and content validity tests were done.

In order to assess the perception of quality of PIEFCA according to teachers and their needs in ICTs, a questionnaire was created and given the code CP1. The instrument was based on SERVQUAling questionnaire, which was created and validated by Mejías, Reyes, and Maneiro (2006), for application in Mexican universities. The questionnaire CP1 was structured into 22 affirmative sentences distributed in the following dimensions: (a) four items for Dimension 1: Tangible elements; (b) five elements for Dimension 2: Reliability; (c) four items for Dimension 3: Responsiveness; (d) four items for Dimension 4: Security; and (e) five items for Dimension 5: Empathy. The questionnaire also included one open question about the use of ICTs offered at PIEFCA. For this instrument, two types of content validity tests were done and a pilot test. Later, reliability was determined by using the internal consistency analysis Alfa de Cronbach (Abad, 1997). The resulting Alfa de Cronbach calculation was 0.864.

Procedure

Research design. The research was non-experimental mixed type. This design consists of both qualitative and quantitative data (Creswell, 2005).

Research Stages. Table 1 presents each of the stages which made up this research.

Table1 Procedure to determine the outcome of an Innovative Education Program at the FCA

Stage	Participants	Research methodology	Instruments
First stage	Six people who work at DIE	Focus group	Discussion guide (GD1) to answer research question one
Second stage	168 teachers	Questionnaire	Closed-questions questionnaire which included one open question (CP1) to answer research questions two and three

Data Analysis

The data obtained from Discussion Guide GD1, was organized according to the topic presented, strengths and weaknesses. At a later stage, categories were determined to sort out information through founded theory (Strauss y Corbin, 2002).

The data collected from the closed-questions questionnaire CP1 were processed through descriptive statistics. Specifically, all the answers to the questionnaires were organized in a matrix for statistical treatment. From this matrix, frequency, median, mode, and standard deviation were calculated for each of the 22 items in the questionnaire (Creswell, 2014).

In order to process the answers to the open question in the questionnaire CP1, the technique for quantitative content analysis was used (Krippendorff y Bock, 2009). Firstly, general patterns were identified and labeled. Then, each pattern was given a code to obtain categories which represented the final results.

Results and Discussion

To answer the first question, "Which are the strengths and weaknesses of the Innovative Education Program at the Accounting and Management Faculty (PIEFCA)? Data taken from the focus group was analyzed and was interpreted as follows:

Strengths of PIEFCA

PIEFCA Personnel. They are focused on commitment, specialization, knowledge of their duties and the services offered by the program. Regarding personnel commitment, Senge (2005) pointed out that the value of commitment shared with the purpose and vision of the organization establishes a bond among its members, which contributes to the continuous perfection of the organization in order to achieve its higher goals. Davis y Newstrom (2003), also mentioned that the driving force in an organization are the people in it, their qualifications, commitment, honesty, loyalty, motivation, specific responsibilities and how they are expected to do each, teamwork orientation, and the seeking of quality. These authors point out that this force contributes to the efficacy of an organization. The ideas presented by the authors relate to this research because they emphasize the wealth of personnel commitment in line with institutional goals, which is the case for PIEFCA. They also highlight the importance of personnel in terms of values, qualifications, and the search for quality.

Organization, infrastructure and innovation at PIEFCA. Results show that this program is an essential axis for the school curriculum. In these terms, the Academic Board at the Mexican university in this Project established that in all curriculum proposals at the institution, the essential axes are: innovative education with an emphasis on the use of ICTs, tutoring services for students, and a competency-based approach focused on learning (UASLP, 2007). In regards to the technological infrastructure of the program, Velazco-Bórquez (2009), who evaluated an educational program supported by ICT, admitted that a modern technological infrastructure facilitates academic activities for both teachers and students, which was proven by the resulting perceived strength of PIEFCA due to the use of modern technology. In addition, Velazco-Bórquez (2009) indicated that communication and the use of information are aided though the use of a technological platform. In this context, the evaluation of PIEFCA demonstrated how relevant the use of DOKEOS platform is as a mean of communication supporting the academic processes at the Accounting and Management Faculty. Regarding innovation at PIEFCA, Villar (2013) indicated that it is a pioneering program at the institution, which has been used as a model for similar projects throughout the university.

Weaknesses of PIEFCA.

PIEFCA Personnel. This first topic was picked out due to the deficient number of people working at PIEFCA uncertainty to keep them in their jobs. This constitutes a contrast with the same topic being labeled as a strength above. The main contrast being that personnel are both a strength and a weakness. However, it was clear that the development of the program requires hiring a higher number of workers to provide all the services efficiently. It was also worth mentioning that personnel should be given an employment status that will allow them to further develop within the institution. In this matter, González y Olivares (2005) stressed that within the personnel planning process in an organization, it is essential to predict the demand, analyze the offers, provide work stability, and balance supply and demand conditions. If handled carefully, this process will help authorities meet both the organization's and employees' needs.

Services, dissemination, and identity at PIEFCA. In terms of services, the outcome was that teachers receive differentiated services, depending on the personnel and the space where the service is provided. In this matter, Bajac and Fernández (2003) said that, in order to minimize heterogeneity in services, it is essential to produce service standards. He also pointed out that following the same procedures is not enough. Employees must also follow them the same way. Besides, Bajac and Fernández (2003) specified that alike PIEFCA, it is typical that personnel provides services "their own way". For this reason, it is important that an operating manual be created, in order to provide homogeneous quality services at PIEFCA.

In terms of dissemination and identity, the conclusion was that there is little dissemination of PIEFCA program, its services and regulations. In relation to this topic, Velazco-Bórquez (2009) emphasized that the lack of effective dissemination and communication harms the quality of the service for the educational program. The author goes on to say that organizational dissemination must refer to the identity of the program, which consists of its own attributes, such as principles and values.

In order to answer the second question, "How do teachers evaluate the Innovative Education Program at the Accounting and Management Faculty (PIEFCA)?" the information was obtained through the descriptive analysis done to the 22 closed items in questionnaire CP1. The information was organized in dimensions and was interpreted as follows.

Tangible Elements. This dimension assessed the visual impact of facilities, equipment, personnel, and printed materials at PIEFCA. 74.40 % of the answers provided by teachers were positive (scales 5, 6 and 7). The mode determined that teachers "fully agree" with the equipment, facilities, and personnel appearance; "partially agree" with the printed materials at PIEFCA. Based on these responses, it was established that teachers evaluate

quality in this Dimension "Tangible Elements" positively. Following this idea, Baker, Grewal and Parasuraman (1994) referred to the attributes of service environment, particularly facilities (furniture, electronic equipment, and lighting) as very important, as well as those attributes related to service capabilities (appearance, courtesy, kindness, advice, customer care, ability to communicate, and service). The results of this evaluation indicate that the program organizers pay attention to the attributes related to facilities where PIEFCA services are provided, and also to the way the personnel treats teachers; both aspects were evaluated satisfactorily.

Reliability. This dimension evaluated the ability of personnel to provide the promised service carefully and reliably. 80.12 % of the answer were positive (scale 5, 6 and 7). The mode determined that teachers "fully agreed" with the work done on time, good service provided since the first day, delivery of services on the promised time, and that service at PIEFCA is received without errors; "completely agreed" with the care taken by PIEFCA personnel when solving problems. It was concluded that teachers evaluate the dimension of "Reliability" positively. In this matter, Salvador (2005) pointed that out of the decisive considerations in terms of quality services offered at the university, the most important was "Reliability". Salvador (2005), specified that in his research for this dimension of "Reliability", the protruding services were the interest to solve users' problems and the time personnel takes to provide the services. This is in line with the evaluation of PIEFCA, where these aspects were evaluated positively as well.

Response Capability. This dimension evaluated PIEFCA personnel's willingness and disposition to help users and provide service. 82.14 % of teachers' answers were within the positive range (scales 5, 6 and 7). From the mode it was determined that most teachers "fully agreed" with service punctuality, and with personnel disposition and willingness to help; and "mostly agreed" that they had been informed by PIEFCA when the service had finished. For this reason, it was established that teachers evaluated the quality of this dimension "Response Capability" as positive. In this matter, Dávila (2001) highlighted the relevance of response capability from the personnel to help and to provide service. The author emphasized that disposition to help users on time and to meet their expectations is a guiding principle in customer evaluation of quality of service.

Security. The focus of this evaluation was the knowledge and care shown by PIEFCA personnel to build trust and reliability. 86.46 % of the answers from teachers were within the positive range (scales 5, 6 and 7). From the mode, it was established that most teachers "completely agreed" with all the items in this dimension. From this aspect, it is conclusive that teachers evaluated this dimension of "Security" as positive. In this regard, Vargas, Zazueta and Guerra (2010) mentioned that the dimension of

"Security" is a main factor when evaluating the quality of a service. The authors point out that users expect the service and its delivery in expert and capable hands, and therefore demand from the organization to let them know. In this sense, results from PIEFCA evaluation demonstrated that teachers trust personnel and are kind to them.

Empathy. This dimension evaluated the care and personalized attention offered by PIEFCA to users. 80.71% of the teachers' answers were within the positive range (scales 5, 6 and 7). From the mode, it was clear that teachers "fully agreed" that PIEFCA personnel provides personalized attention and tries to meet their expectations, while the majority said to "partially agree" with service hours. Consequently, it was established that teachers evaluate the dimension of "Empathy" positively. Accordingly, it was established that teachers evaluated this dimension of "Empathy" positively. In this sense, Barrera and Reyes (2003) allude that one of the dimensions that is clearly defined in the users mind is "Empathy". Specifically, these two authors clearly state personalization, interest, and understanding users' needs are essential. Those characteristics mentioned by Barrera and Reyes (2003), completely agree with those evaluated by the teachers, who in turn, said to "mostly agree" with personalized attention and the interest shown by PIEFCA personnel towards their service needs and understanding of specific requirements.

In sum, it is affirmed that teachers evaluate positively the quality of the services provided by PIEFCA. These results are in line with those found by Caraballo (2010), who also evaluated the satisfaction level of an educational program. The author determined that users were satisfied with the quality of services provided by the academic program in question. In this study, Caraballo (2010) concluded that one of the fundamental bases to assess the quality of an academic program supported by ICTs, must include an efficient evaluation system. This author also mentioned that the quality of services with technical support is an added value to the learning experience of both teachers and students.

For the third question "What are teachers' needs towards the use of ICTs within the Innovative Education Program at the Accounting and Management Faculty (PIEFCA)?" this research project took the results obtained from the content analysis from the open question included at the end of the CP1 questionnaire. The following lines present the interpretation of needs in terms of ICT form teachers.

Computers from PIEFCA and internet Services. In this context, Bates (2000) mentioned that an adequate technological infrastructures, as well as reliable access to the web, were essential requirements for teaching supported by technology. In this regard, Álvarez (2005) stated that, it is the academic institution's responsibility to ensure that the academic offer is

congruent with the technological infrastructure and connectivity, as well as resources provided. One of the tangible needs expressed by the teachers is for the institution to provide more computer equipment and a better access to the Internet. In line with Bates (2000), this would help guarantee the quality of technical services provided by the program.

User Training at PIEFCA. Velazco-Bórquez (2009) reported after evaluating an academic program supported by ICT, that the vast majority of user needs relate to formative aspects and training. This author specified: "the teacher must have knowledge about the subject matter and a solid pedagogical background, and must be able to use technology in order to aid instruction and teaching" (p. 84). Bearing this in mind, Sherry and Morse (1995) stated that in order to ensure user satisfaction in an academic program, the level of satisfaction must be evaluated permanently. As in the evaluation carried out by Velazco-Bórquez (2009), PIEFCA's results determined that one of the main needs expressed by teachers is training in the use of ICTs. Users agree that in order to use the services provided by the program, they must be trained in the DOKEOS platform and in the use of computers.

Customer Service at PIEFCA. Bates (2000) denoted that one of the main characteristics was that services offered with technological infrastructure guarantees that customers' needs are fully met. Within the teachers' needs, two stand out: sufficient, modern technological infrastructure available, and adequate facilities to provide service in relevant schedules and enough expert personnel who can aid meet teachers' needs. Concerning this aspect, PIEFCA results showed that there are teachers' needs that are not fulfilled accordingly, and so they must be pinpointed. As Bates (2000) points out, this will call for strategies that guarantee proper care for their needs.

Dissemination of PIEFCA. For this matter, López (2006) stated that more than a dissemination strategy, it is required to come up with a strategic communication plan. According to López (2006), this strategic communication plan must consider communication as the central axis for the organization's activities. This plan must become the driving force to integrate the organization, maximizing individual actions and establishing a synergy among the participants in the organization. In the author's words, the communication plan must foster rapport among the people who represent the different audiences in the organization. In the case of PIEFCA, teachers requested to be informed in advance of the services and events offered by the program. As mentioned by López (2006), in order to fulfill these needs, a strategic communication plan is required, which will not only satisfy the needs, but also align communication within the organization while considering other PIEFCA users.

Conclusion

On the one hand, the strengths of an Innovative Education Program at an academic entity in a Mexican public university rely on the people who work in the program, as well as in the modern technological infrastructure in it. On the other hand, this program demonstrated to be relevant due to the innovative aspect within the context of the university evaluated. In these terms, it was concluded that the results related to program strengths are in line with those set by the PIEFCA project, more specifically, those related to personnel development and the technological infrastructure that supports it.

Secondly, weaknesses at PIEFCA showed that it is unable to care for all the users due to staff shortage, and people who work in the program lack work stability. It was also shown that the program does not have effective communication and dissemination strategies for services, regulations and identity.

Moreover, it was evident that teachers evaluated the quality of services offered by the program positively. This result showed that the gap between teachers' expectations and the services provided by PIEFCA is small. Regarding teachers' needs in ICTs, it was concluded that the program: (a) must increase the number of computers, (b) must purchase specialized software, (c) must train users, (d) must extend service hours, (e) must improve Internet access, (f) must allow free access to social networks, and (g) must provide timely information related to the program.

Based upon these results, it is recommended to program authorities: (a) to design a strategy that considers hiring personnel in social service and professional internship situations, in order to meet service demands throughout the schedule; (b) to design a strategic communication plan which sets communication as the driving force for PIEFCA activities; (c) to do a diagnosis of technological infrastructure and its functionality; (d) to elaborate a plan to purchase ICTs for the timely renovation of software and hardware as required; and lastly (e) to establish a permanent training program for users.

References:

Abad, M. (1997). *Investigación evaluativa en documentos: Aplicación a la documentación médica.* Valencia: Universidad de Valencia.

Álvarez, J. (2005). *Estudio cualitativo del nivel de receptividad y percepción de la alta gerencia universitaria sobre la implantación de un modelo de universidad virtual.* Disertación doctoral no publicada, Pontificia Universidad Católica de Puerto Rico, Ponce, P.R.

Amezcua, C. & Jiménez, A. (1996). *Evaluación de programas sociales*. Madrid: Díaz de Santos.

Asociación Nacional de Universidades e Instituciones de Educación Superior (2013). *Acerca de la ANUIES.* Recuperado de http://www.anuies.mx/content.php? varSectionID=2

Asociación Nacional de Universidades e Instituciones de Educación Superior. (2006). *Consolidación y avance de la educación superior en México. Temas cruciales de la agenda.* México: Autor.

Baker, J., Grewal D. & Parasuraman A. (1994). The Influence of Store Environment on Quality Inferences and Store Image. *Journal of Academy of Marketing Science, 22*, 328-39.

Bajac, H. & Fernández, P. (2003). *La gestión del marketing de servicios.* México: Ediciones Granica.

Barrera, R. & Reyes, M. (2003). *Análisis comparado de las escalas de medición de la calidad de servicio.* En XIII Jornadas Hispano-Lusas de Gestión Científica, *13,* 285-294. Lugo: Universidad de Santiago de Compostela.

Bates, A. W. (2000). *Cómo gestionar el cambio tecnológico: Estrategias para los responsables de centros universitarios* (1a. ed.). España: Editorial Gedisa, S. A.

Caraballo, O. (2010). *Evaluación del nivel de satisfacción de la gestión de un programa de aprendizaje a distancia aplicando el modelo CIPP: Caso del programa de administración de sistemas de oficina de una universidad privada de Puerto Rico.* Disertación doctoral no publicada, Nova Southeastern University, Florida, EE. UU.

Castillo, S. & Cabrerizo, J. (2003). *Prácticas de evaluación educativa.* Madrid: Pearson Educación.

Consejo de Acreditación de la Enseñanza en Contaduría y Administración. (2012, diciembre). *Informe de evaluación de los programas educativos de la Facultad de Contaduría y Administración.* México, D.F., México: CACECA.

Creswell, J. (2014). *Research Design Qualitative, Quantitative, and Mixed Methods Approaches* (4a. ed.). Thousand Oaks, California: SAGE Publications.

Dávila, J. (2001). *Análisis de los factores determinantes de la calidad del servicio y su repercusión en la satisfacción del cliente y en la lealtad al proveedor: estudio empírico en los establecimientos hoteleros de Castilla y León.* Disertación doctoral no publicada, Universidad de León, León, España.

Díaz, M. & Benítez, G. (2009). *Evaluación y seguimiento del modelo curricular 2006 de la Facultad de Contaduría y Administración.* Manuscrito FCA-UASLP.

Facultad de Contaduría y Administración. (2008). *Programa de innovación educativa de la Facultad de Contaduría y Administración*. México: UASLP.

Facultad de Contaduría y Administración. (2006). *Propuesta del nuevo modelo curricular para la Facultad de Contaduría y Administración.* México: UASLP.

González, M. & Olivares, S. (2005). *Administración de recursos humanos. Diversidad-Caos.* México: CECSA

Hernández, R.; Fernández-Collado, C. & Baptista, P. (2009). *Metodología de la investigación.* México: Mc Graw Hill.

Krippendorff, K., & Bock, M. (2009). *The content analysis reader.* Los Angeles, California: SAGE Publications.

López, D. (2006). *Comunicación empresarial. Plan estratégico como herramienta gerencial.* Colombia: ECOE.

Mejías, A., Reyes, O. & Maneiro, N. (2006). Calidad de los servicios en la educación superior mexicana: Aplicación del servqual*ing* en Baja California. *Investigación y Ciencia, 34,* pp. 36-41.

Universidad Autónoma de San Luis Potosí (2013) *Plan Instititucional de Desarrollo 2013-2023.* México: UASLP.

Rivas, N. (2000). *Innovación educativa: teoría, procesos y estrategias.* Madrid: Síntesis.

Salvador, C. (2005). La percepción del cliente de los elementos determinantes de la calidad del servicio universitario: características del servicio y habilidades profesionales. *Papeles del Psicólogo, 26,* 1-9.

Senge, P. (2005). *La quinta disciplina.* México: Ediciones Granica.

Sherry, L. & Morse, R. (1995). An assessment of training needs in the use of distance education for instruction. [Versión electrónica]. *International Journal of Educational Telecommunications, 1*, 5-22.

Strauss, A. & Corbin, J. (2002). *Bases de la Investigación Cualitativa. Técnicas y procedimientos para desarrollar la Teoría Fundamentada*, Antioquia: Universidad de Antioquia, Colombia.

Stufflebeam, L. & Shinkfield, J. (1987). *Evaluación sistemática. Guía teórica y práctica.* Barcelona: Paidos/MEC.

Universidad Autónoma de San Luis Potosí. (2007). *Manual para la formulación de la propuestas curriculares y planes de gestión de la nueva oferta educativa autorizada por el H. Consejo Directivo Universitario.* México: UASLP.

Vargas, H., Zazueta, F. & Guerra, E. (2010). Un modelo para medir la calidad en el servicio en una empresa local de pizza en Los Mochis, Sinaloa. *Gestión Joven. Revista de la Agrupación Joven Iberoamericana de Contabilidad y Administración de Empresas, 6,* 1-18.

Velazco-Bórquez, F (2009). *Evaluación de la efectividad del programa de educación a distancia en una universidad de México.* Disertación doctoral no publicada, Nova Southeastern University, Florida, EE. UU.

Villar, F. (2013). *Informe de Trabajo 2012-2013.* México: UASLP