Learning & Study Strategies from a Public University in the North of México

Estrategias de enseñanza aprendizaje en una universidad pública del norte de México

Kutugata, A.[1] & Araiza, M.J.[2]

Abstract

T his Study applies the L.A.S.S.I. (Learning and study strategies inventory) in order to understand the areas of limitation and need of guidance to accounting students in a public university in their first college year [10]. Analyzing the areas (attitude, motivation, time administration, anxiety, concentration, process of information, selection of principal ideas, help to study, self-evaluation or control and test strategies) that constitute this inventory, the research team would suggest diverse academic strategies to improve and deal with the areas of conflict and needs in relation to the standard and goals previously established by the authorities of the public university.

Key words: Le arning & Study strategies, L.A.S.S.I., Attitude, Motivation, Anxiety, Concentration, Skills & Habits

Resumen

E ste estudio aplica el L.A.S.S.I. (El aprendizaje y estrategias de estudio de inventario) con el fin de comprender las áreas de limitación ynecesidad de orientar a los estudiantes de contabilidad en una universidad pública en su primer año de universidad [10]. El análisis de lasáreas (actitud, motivación, gestión del tiempo, la ansiedad, la concentración, el proceso de información, selección de ideas principales, ayudara estudiar, la auto-evaluación o las estrategias de control y de prueba) que constituyen este inventario, el equipo de investigación sugierediversas estrategias académicas para mejorar y hacer frente a las zonas de conflicto y necesidades en relación con la norma y metaspreviamente establecidos por las autoridades de la universidad pública.

Palabras clave: Estrategia de enseñanza aprendizaje, aptitud, motivación, ansiedad, concentración, competencias, habitos

Introduction

Successful colleges' students are those who are able to know and control their strengths and limitations in order to achieve their academics and personal goals during their permanence within their education process. In this sense, students who are self- determined are more likely to gain employment according to Hitchings & Retish, 2000; Gerber, 2002; Reis, McGuire, & Neu, 2000; Ruban, McCoach, McGuire, & Reis, 2003 cited by [12].

As a result, the self-determined students are more likely to earn a higher income, live an independent life with a better quality as the studies of Birel & Getxel,

2005; Madaus, Ruban, Foley, & McGuire, 2003; Stodden, Conwoy, & Chang, 2003; Wilosn, Getzel, & Browm, 2000; Wehmeyer & Schwarts, 1997 show cited by [12].

In order to achieve this, universities and professors should encourage students to be independent, responsible and self-reliant becoming young adults able to demonstrate the abilities toward these skills. As a first step, the academic entities should be able to know and understand the profile of our students in terms of their learning and study strategies defining their areas of limitations in order to nurture and develop the areas that need attendance and guidance.

After this first step, using the L.A.S.S.I. (Learning and study strategies inventory), the academic entity will be able to point out the area(s) of lower rate and demanding attention the student(s) should work on.

The area(s) covered by the L.A.S.S.I. are: attitude, motivation, time administration, anxiety, concentration, process of information, selection of principal ideas, help to study, self-evaluation or control and test strategies[10].

Most faculty members expect students of college to be independent, responsible and self-reliant or at least being able to demonstrate their abilities toward refining skills according to the National Survey of Student Engagement, 2009; Greene, 2009; Longley, 2007; Shelley, 2007 cited by [12].

Literature review

Factors affecting learning effectiveness

Instructor and professors play a key role in the learning process of the university students by providing reinforcement in learning skills. By these means, the students are able to process their values and goals moving beyond their individual experiences into the working field as what they achieved as knowledge in the classroom, could be useful in their own labor context [14].

According to studies by Eyler & Giles, 1999 cited by [14], college undergraduates' reflection activities were positively associated with problem solving abilities. On the other hand, older students believed that service learning improved their leadership skills, as well as the service learning had improved their abilities to work with other.

The right attitude from students has a direct relation with the positive attitude from their professors' performances. Such performance skills such as vocalization, constant eye contact with students, not only improves the student's engagement but also increases their level of retention as far as large amount of information according to Coat s & Smidchens, 1966; Patrick, Hisley & Kempler, 2000 cited by [11].

Saade, 2007 and Pierce, Stacey & Barkatsas, 2007 cited by [13] showed that student's emotions, interest and beliefs about learning affected their behaviors; on the other hand, Karagiannopoulou & Christtodoulides, 2005 cited by [13] showed that attitudes are more significant in terms of predictors if academic success in university students.

As far as motivation goes, it is important to considered the theoretical base of the concept that the main motive to learning is the gained satisfaction of the learning process by itself [6].

Taking this into consideration, we can find intrinsic and extrinsic motives towards motivation. In the intrinsic motives we find the epistemic motive as the sati sfaction and pleasure of acquiring knowledge, skills, and attitudes associated with the learning process. As a socio-emotional motive we find adults and young adults with the need to

develop new relationships, establishing social contacts as well as being integrated within a group. In terms of a hedonic motive the student participate in learning activities for the pleasure to participate and the content of learning. In the extrinsic motives the economic motive is related to the promotion of a job o increase of salary the learning experience might provoke. The prescriptive motive is due to explicit external pressures such as an obligation or imposition. The derivate motive would be to avoid unpleasant situations or activities, therefore the student prefer to participate in the learning or training activity [6].

On the other hand, Patrick, Gentry and Owens, 2006 cited by [3] suggests looking for five indicators to continuo motivating them with an interest and desire to go above and beyond what is expected of them. These indicators are: activities choices, activity level, engagement behaviors, persistence, and continuing motivation.

As far as concentration goes, Stuart and Rutherford's study found that the greatest level of students' attention toke place within the first 10 to 15 minutes of instruction and then it decreased by progression, until the end of the lecture. In this sense, Middendorf and Kalish considered necessary to recapture the students' interest by getting them involved in the class lesson by suggesting interpersonal intervention as well as performing active exercises, questions, special assignments and group activities. In order to do so, the professors should invest time and effort in the planning and designing the best activities to encourage their participation and the reach of goals and competences [4].

Study and Thinking Skills

The concept of study skills is defined as the application of the mental faculties in the acquisition of knowledge as well as the techniques and strategies that would help a person to read or listen for a specific purposes with the intent to remember the information according to Harris and Hodges, 1995 cited by [18]. In order to do so, the academic entity should distinguish between study tactics, as a sequence of steps or procedures, and a study task. In this sense, Gettinger and Seibert, 2002 defined a strategy as a comprehensive approach by a person to a

task, considering how a person thinks and acts in relation to a plan and evaluation of his or her study behavior [18].

Those who read to learn are employing study strategies and skills. Study strategies and skills require intensive reading and thinking techniques such a critical thinking and exercises to promote an active process of comprehension and application of the input and knowledge gathered to use in one or more subjects along their professional studies.

In terms of the designing of courses in higher education to develop thinking skills, the activities must teach a creative and critical thinking skill, as well as developing general education in a constructive approach of learning to all students providing a training process for students to demonstrate a behavior to organize and manage solutions to real problems. The term of productive thinking is acknowledged as a creator, inventor and a problem solver. This problem solver should develop several ideas with a fluency and variety of them, being flexible with originality and an elaboration of possible solutions to solve problems [16].

On the other hand, the study effort operationalized as study time moderated the relationship between the ability and the academic performance, therefore students who spent more time studying has an influence on their performance in a positive way [17].

Considering all these, the study habits, skills and attitudes are strongly related to academic performance in college. In the same level, attendance, homework turned in, the use of a study guide; prior a proper preparation for a class will increase a Students' deep learning improving an analytical thinking according to Gracia & Jenkins, 2003; Shaftel & Shaftel, 2005; Wooten, 1998; Hall, Ramsey & Raven, 2004; & Williams & Worth, 2002 cited by [22].

Literacy and Study Struggles

According to several studies, many college students struggle with the literacy skills needed to be successful in higher education involving the abilities of finding meaning to what been read in text as mention in Bettinger & Long, 2009; Snyder, Tan & Hoffman, 2004 cited by [9].

In this sense, there are several strategies to increase comprehension reading texts such as the ability to predict, clarifying the passages or section read by questioning and or summarizing the main ideas and supporting ones [9]. In other cases, the teachers and students might take turns discussing about the reading in an open debate face to face or on line in discussion groups.

In a more detail strategies [9] the prediction refers to the hypothesis generated about what is expressed within the text. In this process the student's prior knowledge about a topic in the text would be able to reevaluate and perform a prediction about a certain idea or concept expressed, in order to start an open line to a debate.

On the other hand, the questioning would generate questions about the main idea and supporting information by inferring data from the reading; this activity may improve the student's comprehension of the subject being reinforced by the feedback of the professor or tutor. This clarification given by an academic will benefit the students in the understanding of new concepts, vocabulary and reference words to be analyzed in their own understanding of the matter [9].

The activity of summarization entails the students to identify main ideas and relevant details found in the reading involving the retelling of the text in a concise way including important details with their own word and thinking structure according to the own background and level of cognitive understanding [9].

In the process of learning new concepts in the reading of texts Vermunt, 1992 cited by [20], mentioned five distinctive conceptions: the construct of knowledge build from a previous personal knowledge network structure; the use of knowledge emphasizing according to values acquired by knowledge and experience; the intake of knowledge focuses on the intake of information of fact retention; the co-operation by working together with other peers; and the stimulating state build by the need and impulse of learning more [1].

In terms of information-processing activities [20] found five different types which are: relating and structuring, critical processing, memorizing, analyzing, and concrete processing. However, as far as a regulation strategy refers by which a student is able to regulate himself while study-

ying, Vermut and Vermetten, 2004 cited by [20] there are students who are self-regulated, able to direct themselves; external regulators, students who need someone else to direct them; and those who have a lack of regulation, students that do not know what to do, when or why, as well as where to start and go.

This last group is in high risk of losing track of their achievement and required an immediate counseling by professionals and faculty members.

Strategies and Stress factors

A learning strategy describes the learning activities students would apply to study learning material. According to [7] we have two types of learning strategies: a deep learning strategy that would involved activities relating ideas and seeking evidence with the intention of understanding what has been taught, and a surface learning strategy with the main objective of memorizing and recalling and reproducing facts without be goal of understanding and applying this knowledge.

Therefore, professors should focus on deep learning strategies with a constructive conception of learning seeking the understanding and responsibility assumed by the students of their own learning outcomes.

In order to achieve the following, professors and instructional designers should choose the best course materials that would encourage students to participate in an active role individually and by team work in order to obtain and analyze situational factors that could apply to their reality.

In terms of activities, these should be active, experimental and reflective having a sequence en between that could build and culminate into an integrated learning objectives and competence [15].

On the other hand, the role of the professor and tutors are key, since they are the one giving feedback and direction to their efforts and performances in a time period per day, week or due time of assignments that would encourage and guide the students quality work as well as their own improvement of achievements with an increasing motivation and positive attitude towards their own results handed in for evaluation [15].

The term stress is considered the result of an individual's perceptions that they do not have the resources to cope with a perceived situation from the past, present or future according to Lazarus, 1999 cited by [19]. In this sense, Shields, 2001 cited by [19] explained that positive stressors could make a student study harder; and on the other hand, negative stressors might provoke suffering and even mental health problems.

In a general sense the source of stress as well as the intensity could vary accord ing to the level of resistance from each person. In some students the workload could become an issue feeling stress as far as fear of failure. The management of time and lack of control over time as well as examinations could cause a range of symptoms such as nausea, changes in eating habits and sleeping patterns as well as stomach pains [8].

Students' response to stress in an emotional way with symptoms of fear, anxiety, worry, guilt, grief and depression, in a cognitive reactions with changes of behavior manifested by crying, abuse of self or others, smoking and irritability [21], and in a physical way such as sweating, trembling, headaches, weight loss or gain and any other body aches according to Misra, McKean, Wes & Russo, 2000 cited by [19].

Purpose and methodology

Purpose

Using the statistical procedure of percentiles in SPSS v.18 of the L.A.S.S.I. (Learning and study strategies inventory) inventory the calculations of variables in a descriptive statistics in percentiles would represent the values in the sample of 57 students, as well as each individual case of students participating in the study. As a result of these, we could establish an analysis of the outcome in order to accept or refuse our null hypothesis stated as follows:

Ho - The level of learning and study strategies of the majority of students is acceptable in the range of 30 to 70 percentiles within the group.

Or on the other hand we could accept or refuse or alternative hypothesis stated as follows:

H1 - The level of learning and study strategies of the majority of students is not acceptable in the range of 30 to 70 percentiles within the group.

Sample

The sample used for this study is composed by a group of 57 students of accounting in the first semester of the career of accounting, where 29 are female (51%) students and 28 (49%) male students.

Instrument and Procedure

Quantitative Approach

The Cronbach's alpha reliability for the LASSI of 77 items obtained by the authors using SPSS is .88. The Cronbach's alpha obtained in our research using SPSS-18 is of. 93. According to the study "Técnicas Psicométricas, Cát. II - Practica de Investigación Claves de Correccion" from the [1], from the 77 items from the Mexican Version of the L.A.S.S.I. inventory, 35 items are direct with the Likert Scale of Never = 0, Few Times = 1, Sometimes = 2, Frequently = 3, and Always = 4; where the inverse items are 42 with the Likert Scale of Never = 4, Few Times = 3, Sometimes = 2, Frequently = 1, and Always = 0.

The L.A.S.S.I. inventory is composed of 10 concepts, which are: attitude, motivation, time administration, anxiety, concentration, process of information, selection of principal ideas, help to study, self-evaluation or control and test strategies.

The values of each variable are assigned by percentiles using the program SPSS v.18, assigning ranks of cases in order to calculate the percentiles using the formula (((RACT-.5(/57)*100). Afterward, the analysis is done by a descriptive statistics by frequency of percentiles with the graphics of Histograms.

The analysis of the L.A.S.S.I. was performed in two different ways, one as a group taking into consideration the percentiles and histograms per group, and the second type chosen by ransom, every 5 students from the fifth to the twenty-fifth place of the set of students from the whole sample, having the following student's cases: Student no. 5, 10, 15, 20, & 25. Therefore, the analysis and interpretations will be performed per student's cases as well as per the whole group.

Data Analysis and Findings

Quantitative Analysis

Table no. 1

		ACT	MOT	ADT	ANS	CON	PDI	SIP	AAE	AOC	EDP
N	Valid	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00
	Missing	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Mean		50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Median		48.25	47.37	51.75	47.37	50.88	50.88	62.28	51.75	49.12	49.12
Mode		75.44	22.81	39.47[a]	6754	19.30[a]	41.23	62.28	51.75	69.30	49.12
Minimum		.88	.88	1.75	.88	.88	.88	.88	.88	.88	.88
Maximum		96.49	97.37	99.12	99.12	99.12	99.12	98.25	99.12	96.49	99.12
Percentiles	0	.	.	.	.	.	.	.	.	.	.
	25	23.68	22.81	24.56	22.81	22.81	24.56	25.88	25.00	24.56	24.56
	50	48.25	47.37	51.75	47.37	50.88	50.88	62.28	51.75	49.12	49.12
	70	75.44	74.56	72.81	6754	71.58	71.05	62.28	71.93	69.30	71.05
	75	75.44	74.56	72.81	71.93	75.44	75.44	73.25	75.44	69.30	76.32
	99	.	.	.	.	.	.	.	.	.	.

a. Multiple modes exist. The smallest value is shown

Note. Data obtained from the analysis of the SPSS v 18 from the study "Learning & Study Strategies in Students of Accounting from a Public University in México" Analysis of case per group

Table no. 2

Case	Gender	Age	ACT	MOT	ADT	ANS	CON	PDI	SIP	AAE	AOC	EDP
5	1	d	54	23	2	23	39	25	42	37	32	19
10	1	d	17	92	63	47	39	89	62	84	83	83
15	2	d	75	84	81	15	83	96	62	72	96	83
20	2	c	19	12	52	55	75	25	32	63	32	76
25	2	d	96	75	91	68	90	57	98	93	88	91

Note. Data obtained from the analysis of the SPSS v 18 run from the study "Learning & Study Strategies in Students of Accounting from a Public University in México" Individual analysis of cases per student .

Gender: 1 = Male & 2 = Female

Age: a = 16 yrs., b = 17 yrs., c = 18 yrs., d = 19 yrs., & e = 20 yrs.

ACT = attitude / MOT= motivation / ADT= time administration / ANS= anxiety / CON= concentration / PDI= process of information / SIP= selection of principal ideas

AAE= Help to Study/ AOC= self-evaluation or control / EDP= test strategies

According to [1], the interpretation of the results in percentiles (Table no. 1) **accepts the Null Hypothesis:**

Ho - The level of learning and study strategies of the majority of students is acceptable in the range of 30 to 70 percentiles within the group.

This result takes into consideration the following guideline: the values between 30 through 70 represent an acceptable development of the concept analyzed. However, the values between 25 or lower rank reflects concrete difficulties and areas to improve by teaching and learning strategies to reinforce the skills and abilities the students should develop and sustain along their studies. On the other hand, the values from 75 and over would represent excellent strategies, skills and/or habits that will assure them the fulfillment of their academic programs without relevant problems as far as their learning and study skills and strategies are concerned.

Group Analysis

In general terms, the lowest rank of percentiles within the sample are the levels of anxiety, concentration and motivation with a 23%. Therefore, the students should learn to cope with their levels of stress, focusing and redirecting their energies in their assignments and lessons. Perhaps a personalize session with the professor or tutor will guide and resolve the problem(s) or situation(s) that might be causing this anxiety. As a result of these sessions, their attitude, rank with a 24 %, should change once they feel they count with the help and attention from his/her professor.

The level of concentration might also be a direct effect of their emotions and lack of organization of efforts and abilities. Therefore, a time schedule should produce a balance between their academic activities, such as assignments, studying and preparing for their lectures as well as a balance with their social and personal life. This strategy will cover the time administration with a rank of 25%. Once they follow their own personalized schedule, their level of motivation will increase as their performances and grades will increase.

In terms of activities planned in the classroom to reinforce this three areas, it is convenient to focus on their level of concentration by dynamics of reading and answering questions, first simple ones and increase the level of complexity at the pace of the own group [5].

In order to decrease the level of anxiety, the students should be aware that these activities have the goal of reinforcing the concepts learned and not a test to be graded. This strategy should increase their ability to process information, rank with a 25%, as well as their selection of principal ideas, rank with a 26%.

During these processes, the activity could turn to a written report or essay receiving feedback from the professors reinforcing their self-esteem as the good elements and comments are highlighted, avoiding in this first step an extreme negative criticism. However, once the group achieves the strategy, the level of requirements and academic standards should increase.

On the other hand, a list of good habits such as a personalized session with a tutor and support from psychological staff, will give them a positive structure helping them to study appropriately, as well as increasing their abilities of self-evaluation and test strategies, ranked with a 25% this last three areas.

Future study and limitations

In order to fully benefit from the instrument of L.A.S.S.I., it would be useful to apply this inventory to the first new generation of freshmen in the Faculty of Accounting and Administration, to start a complete profile of each and every one of these students. With this information, the rate of dropouts could decrease in a significant degree.

On the other hand, the programs of tutoring by academic staff would benefit with the input of risk areas the students have and their help would be precise with a

high speed of recovering and the application of strategies adequate to the nature of the problems and situations affecting the university students.

The possibility of detecting outstanding students with a high level of achievement would increase the number of students in a program of peer tutoring, giving a holistic support besides the understanding of academic concepts, with the support of professionals in the psychology department and the authorities in charge of the tutoring program for the whole faculty.

The more experience the students should have by answering questioners and inventories, the more data the pedagogical researchers should have to do significant research with a high impact in the academic community. Rookies and experienced professors should work in a collaborative effort to increase the level of achievements of their students, in order to have excellent, professional and outstanding accountants.

References

[1] Arco-Tirado, J. L., Fernandez-Martin, F. D., & Fernandez-Balboa, J. (2011). The Impact of a Peer-Tutoring Program on Quality Standards in Higher Education. *Higher Education: The International Journal of Higher Education And Educational Planning, 62*(6), 773-788.

[2] Asociación Iberoamericana de Diagnostico y Evaluación Psicológica. (2013). Técnicas Psicométricas, Cát. II - *PRACTICA DE INVESTIGACIÓN CLAVES DE CORRECCION (DAT, COPING, LASSI, APOYO SOCIAL (2°-Cuatrimestre 2008 y Año 2009)*. Consulted on February 15, 2013 from: http://www.aidep.org/uba/Bibliografia/Ficha09datcopinglassiapoyo.pdf

[3] Balduf, M. (2009). Underachievement among College Students. *Journal of Advanced Academics*, 20(2), 274-294.

[4] Burke, L. A., & Ray, R. (2008). Re-Setting the Concentration Levels of Students in Higher Education: An Exploratory Study. *Teaching In Higher Education, 13*(5), 571-582.

[5] Castañeiras, C., Guzmán, G., Posada, M.C., Ricchini, M. y Strucchi, E. (1999). Sobre estrategias de aprendizaje y hábitos de estudio Baremación marplatense. *RIPED, 8*(2), 37-50.

[6] De Oliveira Pires, A. (2009). Higher Education and Adult Motivation towards Lifelong Learning: An Empirical Analysis of University Post-Graduates Perspectives. *European Journal of Vocational Training, 46*(1), 129-150.

[7] Ferla, J., Valcke, M., & Schuyten, G. (2009). Student Models of Learning and Their Impact on Study Strategies. *Studies In Higher Education, 34*(2), 185-202.

[8] George, D., Dixon, S., Stansal, E., Gelb, S., & Pheri, T. (2008). Time Diary and Questionnaire Assessment of Factors Associated with Academic and Personal Success among University Undergraduates. *Journal of American College Health, 56*(6), 706-715.

[9] Gruenbaum, E. A. (2012). Common Literacy Struggles with College Students: Using the Reciprocal Teaching Technique. *Journal of College Reading and Learning, 42*(2), 110-116.

[10] H&H Publishing. (2013). LASSI (Learning and Study Strategies Inventory). Consulted on February 15, 2013 from: http://www.hhpublishing.com/_assessments/LASSI/versions.html

[11] Hains-Wesson, R. (2011). The Impact of Performance Skills on Students' Attitudes towards the Learning Experience in Higher Education. *Issues in Educational Research, 21*(1), 22-41.

[12] Hong, B., Haefner, L., & Slekar, T. (2011). Faculty Attitudes and Knowledge toward Promoting Self-Determination and Self-Directed Learning for College Students with and without Disabilities. *International Journal of Teaching and Learning in Higher Education, 23*(2), 175-185.

[13] Kara, A. (2009). The Effect of a "Learning Theories" Unit on Students' Attitudes toward Learning. *Australian Journal of Teacher Education, 34*(3), 100-113.

[14] Lu, Y., & Lambright, K. T. (2010). Looking beyond the Undergraduate Classroom: Factors Influen-

cing Service Learning's Effectiveness at Improving Graduate Students' Professional Skills. *College Teaching, 58*(4), 118-126.

[15] Murphy, T., MacLaren, I., & Flynn, S. (2009). Toward a Summative System for the Assessment of Teaching Quality in Higher Education. *International Journal of Teaching and Learning In Higher Education, 20*(2), 226-236.

[16] Newman, J. L. (2008). Talents are Unlimited: It's Time to Teach Thinking Skills Again!. *Gifted Child Today,* 31(3), 34-44.

[17] Nonis, S. A., & Hudson, G. I. (2010). Performance of College Students: Impact of Study Time and Study Habits. *Journal of Education for Business, 85*(4), 229-238.

[18] Richardson, J. S., Robnolt, V. J., & Rhodes, J. A. (2010). A History of Study Skills: Not Hot, but Not Forgotten. *Reading Improvement, 47*(2), 111-123.

[19] Robotham, D. (2008). Stress among Higher Education Students: Towards a Research Agenda. *Higher Education: The International Journal of Higher Education and Educational Planning, 56*(6), 735-746.

[20] Van Bragt, C. C., Bakx, A. A., Bergen, T. M., & Croon, M. A. (2011). Looking for Students' Personal Characteristics Predicting Study Outcome. *Higher Education: The International Journal of Higher Education and Educational Planning, 61*(1), 59-75.

[21] Welle, P. D., & Graf, H. M. (2011). Effective Lifestyle Habits and Coping Strategies for Stress Tolerance among College Students. *American Journal of Health Education, 42*(2), 96-105.

[22] Yu, D. D. (2011). How Much Do Study Habits, Skills, and Attitudes Affect Student Performance in Introductory College Accounting Courses?. *New Horizons in Education, 59*(3), 1-15.

The authors

Armando Kutugata Estrada, MEH

Independent Researcher and a PhD Student of the "Escuela de Ciencias de la Educación" de la Secretaría de Educación, concluding his dissertation thesis. Member of the REDIIN & RedCUED. Professor of University for more than two decades.

Maria de Jesus Araiza Vazquez, PhD

Professor Researcher of the Faculty of Accounting & Administration and the postgraduate program of the "Universidad Autónoma de Nuevo León", & Professor of the PhD program of the "Escuela de Ciencias de la Educación de la Secretaría de Educación". Member & coordinator of the REDIE-UANL & member of the REDIIN.