

Study habits and academic performance of Law and Education students from a State Mexican University

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Abstract:

The main objective of this research was to identify and characterize the differences in study habits based on personal and academic variables in students of two bachelor's degree (Law and Education Sciences) of Faculty of Administrative and Social Sciences (FCAYS), Autonomous University of Baja California (UABC), Mexico. The sample of this study was 347 students from both programs. The main source of data was the instrument Study Habits Inventory (SHI) which has the following dimensions: environmental conditions, study planning, use of materials, and content assimilation. Descriptive, comparative (ANOVA) and correlation analyses were performed to analyze the data. In the correlation analysis between the variables associated with students' study habits and the grade point average, results show that there are statistically significant connections the dimension of materials. Results show that characterizing and comparing study habits of university students in both programs provides empirical evidence about best study practices and their connection with academic performance, both aspects related to the improvement of the quality of education. It is recommended to carry out more studies considering students from other fields of knowledge.

Keywords: Study habits, academic performance, personal variables, academic variables

Introduction

This paper shows the findings of a study realized in a public university of northern México. This research addressed the problem around the study habits of students from different areas of knowledge (Educational Sciences and Law, particularly) and the main variables demographics and academics involved in this process. In this regard, within the research on study habits and their conceptualization there are several definitions. On the one hand, Lucho (2012) argues that study habits refer to the way in which individuals face their academic work, how they organize themselves to study, how much time they spend studying, and the space, methods and techniques they use. On the other hand, Beteta (2008) defines study habits as the method used by students on a regular basis to assimilate and pay attention to the content of the subjects they are enrolled in and the effort they make when doing their homework and learning activities. According to Galindo & Galindo (2011), study habits refer to the habit of studying without being ordered to do so, that is, not as an obligation; therefore, the development of study habits entails the will and motivation of the student. At the same time, Rana (2020) argue that the study habits are of utmost importance in deciding the success of any individual. Therefore, the study and analysis of it is transcendental at all educational levels. Finally, Adamu Mayanchi, Khan & Abdul Latif (2019) asserts that the study habits include home environment and planning of work, reading and note taking habits, planning of subjects, habits of concentration, preparation for examination, general habits and attitudes, school environment.

Generally speaking, study habits describe all the mental actions that students possess and master in order to improve their learning. The instrument of gathering data of the study was the Study Habits Inventory, SHI (Pozar 2014; Marzulina, Erlina, Pitaloka & Paramika 2019; Adamu Mayanchi, Khan & Abdul Latif 2019;

Rana 2020). This instrument cover four dimensions: study planning; use of materials; content assimilation and sincerity.

The Autonomous University of Baja California (UABC, Mexico) has a Faculty of Administrative and Social Sciences (FCAYS), within which three areas of knowledge are studied: Administrative Sciences (Accountancy, Business Administration and Computing degrees), Social Sciences (Education, Communication, Psychology and Sociology degrees) and Legal Sciences (Law Degree). This paper considered only students from Social (Education bachelor's degree) and Legal (Law bachelor's degree) Sciences, which were selected through a simple random sampling based on the interests and objectives of the researchers (assigned to the degrees in Educational Sciences and Law).

The research questions of this study are:

- What are the study habits of university students of bachelor's degree in Educational Sciences and bachelor's degree in Law?
- What difference exists in the dimensions related to study habits depending on the area of knowledge of bachelor's degree?
- What differences appear when comparing personal and academic variables of students from both programs regarding their study habits?

The research objectives of this study are:

- To describe the study habits of the university students of bachelor's degree in Educational Sciences and bachelor's degree in Law.
- To determine the differences in study habits between university students of the bachelor's degree in Law and bachelor's degree in Education Sciences.
- To analyze the connection between the dimensions related to study habits and the sex and age of students.

Theoretical references

It should be noted that in the topic of study habits some confusion can arise as different terms are used and a variety of concepts exist regarding this subject. Some examples include concepts such as study habits, study techniques, study methods, learning strategies or simply studying. In this paper, the concept study habits is approached as a general thing, encompassing study methods, strategies and techniques. Alcalá (2011) notes that study habits are shaped by the behaviors that students manifest on a regular basis when facing the act of studying and which they repeat constantly. These are carried out considering the different environmental conditions of space, lighting, time; as well as on the basis of personal factors such as an openness for studying, motivation, ability to organize time and space, concentration and effort.

The interest in researching study habits and techniques as well as the learning strategies that students use in their knowledge acquisition processes dates back to the old days (Martínez-Otero & Torres 2005; Alcalá, 2011; Gallardo-Echeñique, Bullen & Marquéz-Molíás 2016; Chilca-Alva, 2017; Numan & Hassan, 2017; Mussarat & Seemab, 2019; Magulod, 2019). However, in recent years, besides being a subject researched from different theoretical-methodological currents (Marzulina, Erlina, Pitaloka & Paramika, 2019), the process of widespread growth of education has led to a boom in this topic. This explains the fact that, currently, there is a large number of papers and researches that have the main purpose of enhancing the development and upkeep of study habits and intellectual work techniques in order to provide an answer to low academic performance of students from different levels including university students (Alcalá, 2011).

Literature identifies factors that can determine study habits. According to (Vargas 2007, 53-54), deciding factors can be of personal, social and institutional nature. Personal deciding factors are those such as academic self-concept, motivation, psychological well-being, satisfaction and dropout regarding studies, attendance, etc. Social deciding factors are those related to academic performance and interaction with student academic life. Some examples in this regard are: environment, family education and socio-economic level, as well as social differences. Finally, unlike the previous ones, institutional deciding factors contribute and relate to the education process. These include: school's conditions, teaching methods, timetables of several subjects and student environment. (Khan & Rashid, 2018; Khan & Rasheed, 2019) argue that the meta-cognitive awareness factor predicts study habits among university students. Too argue that the teaching styles are related with the study habits of university students.

Results of the empirical research on study habits and their connection to different study variables show some findings: regarding academic level and its connection to study habits, Montes (2012) found that first-semester students have better study habits than those enrolled in sixth semester. It was also found that in both semesters, students from morning classes had better study habits than those who attend the evening period. Regarding the variable sex, most research agrees that there is a tendency for women to obtain better school grades than men (Córdoba, 2010; Corea, 2001; Ruiz de Miguel, 2009; Yu, Chan, Cheng & Wai, 2006), this even being a predictor variable of academic performance. Other studies who has analyzed gender differences in the use of learning strategies, also indicate that female students get higher scores than male students in the scales of attitude, motivation, time management, study aids and self-evaluation; these differences point out that gender differences are related to cognitive differences (Echévarri, Godoy & Olaz 2007). Regarding age, Tejedor (2003) suggests that the results of the study about the connection between the variable age and performance can be somehow contradictory. On the one hand, it seems clear that in each course younger students are those with the best performance rates and better grades. On the other hand, best performance is associated to students from final semesters meaning older students.

It should be noted that study habits play a primary role in academic performance, but these are not measured only by the amount of time spent studying; it is also a factor related to the quality of the act of studying. Given the importance of study habits, numerous researches directly relate them to the academic results of school-age students where a positive connection between the two of them has been found (Fullana, 2008; Hernández & García, 1991; Nonis & Hudson, 2010; Meneghetti, De Beni & Cornoldi, 2007). However, in studies regarding the connection between time spent on studying and academic performance, research results vary. On one side, Corea (2001) and Plant, Ericsson, Hill & Asberg (2005) found no connection between the two variables. On the other side, Córdoba (2010) did find a positive connection.

Finally, comparing study habits of university students enrolled in a full-time program vs. a part-time program from two bachelor's degrees of different fields. Analyzing variables related to academic, personal and institutional factors; it represents a possibility of having empirical evidence that add to the discussion about the importance of study habits as a contributing element for the improvement of the quality of education.

Method

In this section, the methodological aspects are described, such as spatial and temporal context, participants, instruments, procedure and data analysis.

Research design

A quantitative approach was used. A survey (SHI, Pozar 2014) was applied to an intentional non-probabilistic sample of students of Educational Sciences and Law, UABC. According to Cataldo, Arancibia, Stojanova & Papuzinski (2019), the research design is cross-sectional (simultaneous collections of study variables), descriptive, comparative (t-distribution) and correlational (study habits, areas of knowledge and contextual variables are related).

Participants

The UABC is a state funded university in northern of México and the FCAYS has three areas of knowledge: Administrative Sciences (Accountancy, Business Administration and Computing degrees), Social Sciences (Education, Communication, Psychology and Sociology degrees) and Legal Sciences (Law Degree). This paper considered only students from Social (Education bachelor's degree) and Legal (Law bachelor's degree) Sciences, which were selected through a simple random sampling based on the interests and objectives of the researchers (assigned to the degrees in Educational Sciences and Law).

Participants were students enrolled in a bachelor's degree in Law (full-time and part-time program) and students enrolled in a bachelor's degree in Educational Sciences (part-time program) on the second-half semester of 2020.

An intentional non-probabilistic sample was used for the research. The instrument was applied in person and randomly in groups of students from the three stages of university education: basic (first and second semester), disciplinary (third to sixth semester) and final (seventh and eighth semester). The final sample consisted of 339 students: 222 students (65.5%) of them enrolled in Law bachelor's degree; and 117 students (34.5%) in Educational Sciences bachelor's degree. This study was approved by Department of Support for Teaching and Research of UABC.

Materials and instruments

The main material of gathering data for the development of the study was the instrument named Study Habits Inventory (SHI) by (Pozar 2014), which describes the process with the Mexican categorization of the sample. This with the purpose of examining the study and learning habits of participants as well as to find the differences that characterize them. The test has a reliability level of 0.90.

On the other hand, in order to determine academic performance, was considered the grade point average of students.

The SHI consists of 90 items distributed in the following dimensions:

- Scale I: environmental conditions of study dimension (18 items), includes the participants' physical and personal conditions and academic performance. These can be seen as limiting factors exercised by both their family and classmates as well as by their beliefs and goals, among others.
- Scale II: study planning dimension (12 items), regards timetables and organization both which can indicate whether the student performs satisfactorily or not.
- Scale III: use of materials dimension (15 items), includes the use of readings, books and other materials such as schemes and summaries for obtaining good grades.
- Scale IV: content assimilation dimension (15 items), represents aspects such as memorization, individual work and teamwork.

- Scale S: sincerity dimension (30 items), regards the important matters before studying, how to organize their studying, how to use their study and work tools and learn, among others.
- All the items from the different dimensions have been measured through a three-step ordinal scale, decoding between 1 and 3. Statistics means for each dimension were obtained within a range of 1 to 3.

Research procedure and statistical analysis

The procedure was conducted in three stages: in the first one, the instrument was applied to students of the bachelor's degree in Law and students of the bachelor's degree in Education Sciences in person and randomly, inside the classroom. They were given 30-40 minutes to answer the instrument. In the second stage, the database was designed and the data was entered using the statistical program Statistical Package for the Social Sciences (SPSS). In the third stage, descriptive, comparative (t-distribution) and correlation (Pearson) statistical analyses of the studied variables were performed. The final results were calculated by taking the arithmetic average of the items for each dimension.

Results

The characteristics of the sample of participants according to gender, age, bachelor's degree they are enrolled in and grade point average are shown in Table 1. Most students were female (n=187; 57.4%) whereas about two thirds were studying the bachelor's degree in Law (n=222; 65.5%). Variable of age shows a wide range between the minimum (18 years old) and the maximum (59 years old) with an average of 25.9 years old. Finally, the variable of grade point average did not show failure rates (minimum= 72) showing a statistical mean of 88.8.

Table 1. Basic descriptors of the variables gender, age, bachelor's degree and grade point average of participants

Gender	n	%		
Female	187	57.4		
Male	139	42.6		
Total	326*	100.0		
Bachelor's degree	n	%		
Education Sciences	117	34.5		
Law	222	65.5		
Total	339**	100.0		
	Min.	Max.	M	s.d.
Age	18	59	25.9	8.9
Grade point average	72	100	88.8	5.6

*Missing Values=21 (no answer)

**Missing Values=8 (no answer)

As explained in the theoretical section, study habits cover four dimensions: study planning; use of materials; content assimilation and sincerity (Pozar, 2014, 98-99). From the instrument, statistics means for each dimension were obtained within a range of 1 to 3. As shown in Table 2, the dimension of planning obtained the highest mean (1.62), whereas the dimension of materials showed the lowest statistical mean (1.40).

Table 2. Mean and standard deviation for the dimensions of study habits

	M	s.d.
Planning	1.62	.31
Materials	1.40	.28
Assimilation	1.41	.30
Sincerity	1.55	.21

In order to show possible significant differences in study habits of students according to the field they study, parametric inferential analyses were carried out based on the measurement scales of study variables. In this case, contrast analyses of means known as t-student were carried out for independent samples. As it can be seen in Table 3, all the dimensions associated to study habits showed significant differences (95% reliable) favoring Law students, except the dimension of assimilation which did not show such differences (sig. =0.63). Levene's test (F) allows the contrast of the hypothesis of equality of population variances. In this sense, if the probability associated with F is greater than 0.05, it can be inferred that these variances are equal (dimension of sincerity). On the contrary, if the probability reaches a value less than 0.05, the hypothesis of equality of variances is rejected. Therefore, it is inferred that they are different (dimensions of planning, materials and assimilation). A non-parametric test (Mann-Whitney U) was performed to confirm statistically significant differences in equality of variance not assumed cases: the dimensions of planning and materials showed statistically significant differences between Law and Education Sciences students.

Table 3. Comparative analysis t-student for independent samples around the dimensions of study habits according to bachelor's degree.

		M	s.d.	Levene		t	Sig. (two-tailed)	Mann-Whitney U
				F	Sig.			
Planning	Law	1.66	.32	5.961	.015*	3.136	.002	.004
	Education Sciences	1.55	.27					
Materials	Law	1.45	.29	5.521	.019*	4.885	.000	.000
	Education Sciences	1.31	.23					
Assimilation	Law	1.43	.32	5.152	.024*	1.867	.063	.145
	Education Sciences	1.37	.26					
Sincerity	Law	1.56	.22	.999	.318*	2.178	.030	
	Education Sciences	1.51	.20					

* Equality of variance is not assumed (<.05)

** Equality of variance is assumed (>.05)

These same parametric inferential analyses were performed to analyze possible significant differences in the grade point average of students according to their field. As shown in Table 4, the t-distribution test for independent samples showed statistically significant differences (sig. =.001, 95% reliable) favoring students of the bachelor's degree in Education. In this item, there are 106 missing values (no answer). Therefore, the statistical results should be analyzed with caution, despite the fact significant differences were observed.\

Table 4. Comparative analyses (t-distribution for independent samples) regarding grade point average according to bachelor's degree.

		n	M	s.d.	Levene		t	Sig. (two-tailed)
					F	Sig.		
Grade point average	Law	169**	88.0	5.7	2.599	.108*	-3.497	.001
	Education Sciences	72**	90.1	4.8				

* Equality of variance is assumed (>.05)

** Missing Values=106 (no answer)

To analyze possible significant differences regarding study habits according to the grade point average of students, the percentiles of this variable were obtained: low grade point average= percentile under average of 85; high grade point average= percentile over average of 93. As shown in Table 5, the dimension of materials was the only one that showed statistically significant differences (95% reliable). Students located in the low-grade point average percentile showed a significantly higher mean (mean=1.46) than those in the high-grade point average percentile (mean= 1.31). However, it should be noted that no homogeneity of variances was observed between students, so these results should be viewed with caution.

Table 5. Comparative analyses t-student for independent samples regarding the dimensions of study habits according to grade point average (low/high)

		M	s.d.	Levene		t	Sig. (two-tailed)
				F	Sig.		
Planning	Low	1.65	.31	.610	.436**	1.874	.063
	High	1.55	.28				
Materials	Low	1.46	.34	8.084	.005*	2.814	.006
	High	1.31	.22				
Assimilation	Low	1.44	.32	.554	.584**	1.686	.094
	High	1.35	.27				
Sincerity	Low	1.52	.22	.859	.356**	-.020	.984
	High	1.52	.19				

* Equality of variance is not assumed (<.05)

** Equality of variance is assumed (>.05)

Regarding personal variables, t-student analyses were carried out for independent samples to analyze possible significant differences regarding study habits according to students' age. For this purpose, the percentiles of this variable were obtained: young student (percentile under 20 years old) and adult students (percentile over 30 years old) were established. As shown in Table 6, all the dimensions associated with study habits showed significant differences (95% reliable) in favor of the percentile of young students, except the dimension of assimilation which did not show statistically significant differences.

Table 6. Comparative analyses t-student for independent samples regarding the dimensions of study habits according to age (young/adults)

		M	s.d.	Levene		t	Sig. (two-tailed)
				F	Sig.		
Planning	Young students	1.65	.30	2.536	.113**	2.140	.034
	Adults students	1.56	.26				
Materials	Young students	1.46	.28	1.956	.164**	3.625	

	Adults students	1.31	.24				
Assimilation	Young students	1.45	.31	.923	.338**	1.031	.304
	Adults students	1.40	.28				
Sincerity	Young students	1.59	.23	2.856	.093**	2.296	.023
	Adults students	1.51	.18				

* Equality of variance is not assumed (<.05)

** Equality of variance is assumed (>.05)

Finally, Pearson's correlation coefficients were obtained between the variables associated with students' study habits and their grade point average. As it can be seen in Table 7, the variable grade point average showed negative correlation rates in all the dimensions of study habits, although only with significant rates regarding the dimension of materials (sig. =.000). This last dimension was positively and significantly related to the rest of dimensions of study habits. The same trend was observed in the rest of the dimensions of this variable.

Table 7. Correlation matrix (Pearson coefficient) between grade point average and dimensions of study habits

		Grade point average	Plannin g	Materia ls	Assimilati on	Sincerit y
Grade point average	Pearson		-.098	-.223	-.120	-.011
	Sig.		.133	.000	.064	.864
Planning	Pearson	-.098		.581	.669	.591
	Sig.	.133		.000	.000	.000
Materials	Pearson	-.223	.581		.612	.510
	Sig.	.000	.000		.000	.000
Assimilati on	Pearson	-.120	.669	.612		.625
	Sig.	.064	.000	.000		.000
Sincerity	Pearson	-.011	.591	.510	.625	
	Sig.	.864	.000	.000	.000	

Discussion

From the exposed results, it was possible to achieve the research objectives and to answer the research questions established in this study. In the analysis of the dimensions of study habits, as shown in the section of results of the general sample, the dimension of study planning is the one to which students give the utmost importance; on the other hand, the dimension of use of materials is the one student see as the least important. In this sense, students value their study habits more with aspects related to the organization and study timetables than to the use of readings, books and other materials such as schemes and summaries to improve their academic performance. In this regard, Gallardo-Echeñique, Bullen & Marqués-Molías (2016) points out that study habits of students are related with to work independently and to study at home. Further, they prefer a face-to-face communication for both academic/school and social communication. In this way, it was achieved to describe the study habits of the university students of bachelor's degree in Educational Sciences and bachelor's degree in Law of UABC.

Law students have higher scores (statistically significant differences) in the dimensions of study habits; except in the dimension of use of materials where there are no differences noted. However, when comparing the grade point averages of students from both bachelor's degrees, statistically significant differences were found in favor of students from the bachelor's degree in Education. While Law students develop study habits

to a greater extent, this does not reflect in an improvement of their academic performance. One of the factors that might be related to the above results is that students of the bachelor's degree in Education attend classes in the part-time program. This implies that they develop a greater number of academic activities autonomously and they develop study habits of higher quality, which could in favor their academic performance. The above coincides with Gallardo-Echeñique, Bullen & Marqués-Molíás (2016) and Magolud (2019) emphasize in university students who have roles of father and mother (adult students) and their autonomous learning study habits. In this way, it was achieved to determine the differences in study habits between university students of the bachelor's degree in Law and bachelor's degree in Education Sciences.

When comparing study habits with personal variables such as students' age or sex, in the first one, it was found that younger students have a greater development of study habits than older students (adults); except in the dimension of content assimilation where there are no statistically significant differences. Younger students foster better environmental conditions for studying, they develop a better planning and organization for studying, they use study materials more appropriately, but they do not necessarily achieve a greater content assimilation. Regarding sex, it should be noted that parametric statistical analyses did not show significant differences regarding any variable. In this way, it should be noted that the research objective related to analyzing the connection between the dimensions related to study habits and the sex and age of students was partially achieved.

In the correlation analysis between the variables associated with students' study habits and the grade point average, results show that there are no statistically significant connections between these variables; except for the variable of use of study materials, where there is a negative connection with statistical significance. In this sense, students who to a lesser extent use study material (including the use of readings, books and other materials such as schemes) will have low academic performance. This could be attributed to an incorrect use of these resources or a lack of guidance to use them fruitfully for the benefit of their learning process. Although it should be noted that the Person coefficient was low, this negative correlation should be interpreted with caution.

This partial relationship was also found in the study done by Sarath & Gail (2010) the results show that in some dimensions the study habits had a direct and positive relation with the performance of the students, but in other dimensions the relation was negative.

Results of this study are not matched by those found by Fullana (2008), Nonis & Hudson (2010), Meneghetti, De Beni & Cornoldi (2007) where they found positive connections between study habits and academic performance. However, these results can concur with the research of Corea (2001) and Plant, Ericsson, Hill & Asberg (2005) where they found no connection between both variables.

For the institution in which the study was carried out, the findings are transcendental to provide feedback on the training processes of future professionals. It is very important to know how the new generations learn and what are their preferred study habits, as well as the cognitive profiles of the students according to their area of knowledge and the preferred learning strategies to build new knowledge. Therefore, the practical implications of this study and its achievements are of great value within the university in which it was conducted.

The main limitation of this research refers to the partial achieved of the research objective related to analyzing the connection between the dimensions related to study habits and the sex and age of students.

More information and a larger sample of participants are needed to explore the relationship between these variables. In turn, it is recommended to carry out this study considering other areas of knowledge (experimental sciences, medical sciences, engineering, among others) and other educational levels (secondary, preparatory), to have a broader panorama about study habits and its relationship with personal and academic variables of the students. Likewise, some results could be affected by the high percentage of missing values due to no answer items in the instrument. It should be noted that in some cases a 30% percentage of missing values was observed. This represents a great limitation to be able to generalize the results of the study. This was due to the fact that many students did not provide information regarding their grades or personal variables.

In this work we present empiric evidence that add to the discussion regarding the importance of identifying effective studying habits at the university level. Relevant information was provided about the relationship between study habits and knowledge areas in university students, as well as its relationship with academic variables. In addition, we provide information that could be used for the development of specific programs or workshops for the strengthening the study habits and improve the overall performance of the students.

References

1. Alcalá, Rocío. 2011. ¿Los hábitos de estudio, útiles ante el fracaso escolar? *Innovación y Experiencias Educativas*. 1-12. https://archivos.csif.es/archivos/andalucia/ensenanza/revistas/csicsif/revista/pdf/Numero_41/ROCIO_ALCALA_CABRERA_01.pdf
2. Adamu Mayanchi, Sulaiman, Khan, Aqeel, Abdul Latif, Adibah. 2019. Relationship among self-concept, study habits and academic achievement of Pre-Nce Students in Zamfara State College of Education, Nigeria. *International Journal of Recent Technology and Engineering (IJRTE)* 7, no. 6S5: 777-780. <https://www-scopus-com.ezproxy.utm.my/record/display.uri?eid=2-s2.0-85066624654&origin=resultslist&sort=plf-f&src=s&st1=>
3. Beteta, Mario. 2008. Relación entre la autoeficacia y el rendimiento escolar y los hábitos de estudio en alumnos de secundaria. *REICE: Revista Electrónica Iberoamericana sobre Calidad, Eficacia y Cambio en Educación* 6, no. 3: 59-99. <https://www.redalyc.org/pdf/551/55160304.pdf>
4. Cataldo Ricardo, Arancibia Marcelo, Stojanova Jana, and Papuzinski Cristian. 2019. General concepts in biostatistics and clinical epidemiology: Observational studies with cross-sectional and ecological designs. *Medwave* 19, no. 8: 1-7. <https://doi.org/10.5867/medwave.2019.08.7698>
5. Córdoba, Luis. 2010. Hábitos de estilo de vida en relación con el rendimiento académico en alumnos de la ESO de Extremadura-Badajoz. Tesis de posgrado, Universidad de Extremadura, Badajoz. <https://dialnet.unirioja.es/servlet/tesis?codigo=130853>
6. Corea, Norma. 2001. Régimen de vida de los escolares y rendimiento académico. Tesis doctoral, Universidad Autónoma de Barcelona, Barcelona. <https://dialnet.unirioja.es/servlet/tesis?codigo=4367>
7. Chilca Alva, Manuel. 2017. Autoestima, hábitos de estudio y rendimiento académico en estudiantes universitarios. *Propósitos y Representaciones* 5, no. 1: 71-127. <https://dialnet.unirioja.es/servlet/articulo?codigo=5904759>
8. Echavarrí Maximiliano, Godoy Juan Carlos, and Olaz Fabián. 2007. Diferencias de género en habilidades cognitivas y rendimiento académico en estudiantes universitarios. (Spanish). *Universitas Psychologica* 6, no.2: 319-329. <https://www.redalyc.org/pdf/647/64760211.pdf>
9. Fullana, Judith. 2008. La investigació sobre l'exit i el fracàs escolar des de la perspectiva dels factors de risc. Implicacions per a la recerca i la pràctica. Tesis doctoral, Departament de Pedagogia. Universitat de Girona. <https://www.tesisenred.net/handle/10803/7980>
10. Galindo Leticia, and Galindo Rosa. 2011. Hábitos de estudio, hábitos higiénicos y condiciones materiales de alumnos con reprobación en una escuela metropolitana del nivel medio superior. *Revista*

- Iberoamericana para la Investigación y el Desarrollo Educativo* 1, no. 1: 93-102.
<https://www.redalyc.org/pdf/4981/498150278005.pdf>
11. Gallardo-Echeñique Eliana, Bullen Mark, and Marqués-Molíás Luis. 2016. Student Communication and Study Habits of First-Year University Student in the Digital Era. *Canadian Journal of Learning and Technology* 42, no. 1: 1-21. <https://files.eric.ed.gov/fulltext/EJ1098279.pdf>
 12. Khan Mussarat, And Rashid Seemab. 2018. Teaching Styles as Moderator between Metacognitive Awareness and Study Habits among University Students. *Journal of Behavioral Sciences* 28, no. 2: 67-84. <https://www.prdb.pk/article/teaching-styles-as-moderator-between-metacognitive-awareness-9131>
 13. Khan Mussarat, and Rasheed Seemab. 2019. Moderating Role of Learning Strategies Between Meta-Cognitive Awareness and Study Habits Among University Students. *Pakistan Journal of Psychological Research* 34, no. 1: 215-231. <https://doi.org/10.33824/PJPR.2019.34.1.12>
 14. Lucho, Hernán. 2012. Hábitos de estudio de los alumnos de nuevo ingreso (Generación 2011) a la carrera de Administración, Facultad de Contaduría y Administración, Campus Coatzacoalcos Universidad Veracruzana. XIV Cobgreso Internacional de la Academia de Ciencias Administrativas, A.C. (ACACIA). http://acacia.org.mx/busqueda/pdf/H__BITOS_DE_ESTUDIO.pdf
 15. Magulod, Gilbert. 2019. Learning Styles, Study Habits and Academic Performance of Filipino University students in Applied Science Courses: Implications for Instruction. *Journal of Technology and Science Education*, 9, no. 2: 184-198. <https://www.jotse.org/index.php/jotse/article/view/504>
 16. Martínez-Otero Valentín, and Torres, Liliana. 2005. Análisis de los hábitos de estudio en una muestra de alumnos universitarios. *Revista Iberoamericana de Educación* 35 (7): 1-9. <http://www.rieoei.org/deloslectores/927MartinezOtero.PDF>
 17. Marzulina Lenny, Erlina Dian, Pitaloka Nova, and Paramika Florensia. 2019. Looking at the link between study habits and academic achievement: the case of Indonesian EFL student teachers. *Indonesian Research Journal in Education* 3, no. 1: 57-76. <https://doi.org/10.22437/irje.v3i1.6507>
 18. Meneghetti Chiara, De Beni Rossana, and Cornoldi Cesare. 2007. Strategic knowledge and consistency in students with good and poor study skills. *European Journal of Cognitive Psychology*, 19, no.4: 628-649. <https://doi.org/10.1080/09541440701325990>
 19. Montes, Iván. 2012. Investigación longitudinal de los hábitos de estudio en una cohorte de alumnos universitarios. *Revista Lasallista de Investigación* 9, no. 1: 96-110. <http://www.scielo.org.co/pdf/rlsi/v9n1/v9n1a10.pdf>
 20. Mussarat Jabeen, and Seemab Rasheed. 2019. Moderating Role of Learning Strategies Between Meta-Cognitive Awareness and Study Habits Among University Students. *Pakistan. Journal of Psychological Research* 34, no. 1: 215-231. <https://doi.org/10.33824/PJPR.2019.34.1.12>
 21. Nonis Sarath, and Hudson Gail. 2010. Performance of Collage Students: Impact of Study Time and Study Habits. *Journal of Education for Business* 85, no. 4: 229-238. <https://doi.org/10.1080/08832320903449550>
 22. Numan Ammar, and Hasan Seyda. 2017. Effect of Study Habits on Test Anxiety and Academic Achievement of Undergraduate Students. *Journal of research and Reflections in Education* 11, no. 1: 1-14. <https://ue.edu.pk/jrre/articles/1101001.pdf>
 23. Plant Ashby, Ericsson Anders, Hill Len, and Asberg Kia. 2005. Why study time does not predict grade point average across college students: Implications of deliberate practice for academic performance. *Contemporary Educational Psychology* 30, no. 1: 96-116. <https://doi.org/10.1016/j.cedpsych.2004.06.001>
 24. Pozar. Francisco. 2014. IHE Inventario de hábitos de estudio. Madrid. Tea Ediciones. http://www.web.teaediciones.com/Ejemplos/IHE_MANUAL_2014_extracto.pdf
 25. Rana, Nishta. 2020. Study Habits of Higher Secondary School Students in relation to the gender, type of school and academic stream. *MIER, Journal of Educational Studies, Trends & Practices* 10, 1: 113-123. <https://doi.org/10.52634/mier/2020/v10/i1/1361>
 26. Ruiz de Miguel, Covadonga. 2009. The effective schools: a multinivel study of explanatory factors of the school performance in the area of mathematics. *Revista de Educación*, no. 348: 355-376. <https://sede.educacion.gob.es/publiventa/d/23098/19/0>

27. Sarath Nonis, and Gail Hudson. 2010. Performance of College Students: Impact of Study Time and Study Habits. *Journal of Education for Business* 85, no. 4: 229-238.
<https://doi.org/10.1080/08832320903449550>
28. Tejedor, Francisco. 2003. Poder explicativo de algunos determinantes del rendimiento en los estudios universitarios. (Spanish). *Revista Española De Pedagogía*, no. 224: 5-32.
<https://dialnet.unirioja.es/servlet/articulo?codigo=718488>
29. Universidad Autónoma de Baja California (2012).
http://sriagral.uabc.mx/Secretaria_General/consejo/201202/07.pdf
30. Vargas, Guiselle. 2007. Factores asociados al rendimiento académico en estudiantes universitarios, una reflexión desde la calidad de la educación superior pública. (Spanish). *Educación* 31, no. 1: 43-63.
<https://www.redalyc.org/pdf/440/44031103.pdf>
31. Yu Clare, Chan Scarlet, Cheng Frankie, and Wai Sung. 2006. Are physical activity and academic performance compatible? Academic achievement, conduct, physical activity and self-esteem of Hong Kong Chinese primary school children. *Educational Studies*, 32, no.4: 331-341.
<https://doi.org/10.1080/03055690600850016>