



## ACADEMIC OPPORTUNITIES OF STUDY HABITS IN COLLEGE STUDENTS: AN INSTRUMENTAL STUDY

ALBERTO REMAYCUNA-VASQUEZ<sup>1</sup>, LUZ ANGELICA ATOCHE-SILVA<sup>2</sup>, FÁTIMA ROSALÍA ESPINOZA-PORRAS<sup>1</sup>,  
JESSICA KARIN SOLANO-CAVERO<sup>3</sup>, LUCIA RUTH PANTOJA-TIRADO<sup>4</sup>, MARÍA VERÓNICA SEMINARIO-MORALES<sup>2</sup>

<sup>1</sup> Universidad Privada Antenor Orrego, Peru

<sup>2</sup> Universidad Nacional de Frontera, Peru

<sup>3</sup> Universidad Católica Santo Toribio de Mogrovejo, Peru

<sup>4</sup> Universidad Nacional Autónoma de Tayacaja Daniel Hernández Morillo, Peru

---

### KEYWORDS

*Study habits  
Planning  
Organization  
Metacognitive  
strategies learning*

---

### ABSTRACT

*The evaluation of study habits as determinant factors in academic performance is a concern for educational agents because they determine the academic opportunities of students. However, a problem encountered is the accessibility of valid and reliable instruments to evaluate study habits from the students' point of view. In this sense, this paper analyzes the internal structure, reliability, and rating of the study habits perception questionnaire. The results and the practical contribution to the educational community in guiding intervention to improve students' academic opportunities are discussed.*

---

Received: 04 / 05 / 2023

Accepted: 30 / 07 / 2023

## 1. Introduction

The approach to study habits in the student population is an issue that has been a matter of concern for many educational agents, especially in recent years, due to the changes that have occurred as a result of the pandemic (Mardini & Mah'd, 2022; Tarchi et al., 2022; Trung et al., 2020). Students who develop better study habits are more likely to achieve better academic performance and success in all domains where they perform (Hassanbeigi et al., 2011; Quilez-Robres et al., 2021), on the contrary, those who do not present positive study habits will have difficulties in planning, organization and time management, which prevents them from complying in a timely manner with all the activities prescribed by teachers and thus interrupts their life expectations and personal and professional growth (De la Fuente & Cardelle-Elawar, 2009; Howard, 2021; Moreira et al., 2013). However, a still latent problem is that their study implies analyzing them as a personal dynamic process, influenced by the particular immediate context, therefore, their evaluation is complicated (Bulent et al., 2015; Smeds et al., 2017).

Seeking to measure the conditions of this problem in the university academic context, several scales on study habits have been created. In this research it has been found that Bray et al. (1980) in the United States, developed a work with the objective of determining the reliability of the previously hypothetical four-factor model of the Study Habits and Attitudes Survey, highlighting that the reliability of the scale was determined through the Alpha coefficient, the hierarchical model of the scale was not supported by a confirmatory factor analysis and finally it was found that numerous items of the test leaned more on a different factor, where many items exhibited very low communalities so they did not load on any factor.

Kaner & Kesiktas (2008) in Turkey validated the study skills scale for assessment in elementary school students, reporting construct validity of the three scales tested by principal component analysis. Total item correlations were also performed to determine the significant difference between the groups. The reliability of the scale and its subscales were analyzed using Cronbach's Alpha and test-retest. The results showed that the scale had good psychometric properties and, therefore, could be used to assess study skills in this level of students.

Saban (2013), in Turkey, adapted the purpose-on-task scale in a sample of 443 young university students, the results showed that the factor structure of this scale, was very similar to the original one from the United States, moreover, each subscale showed high internal consistency and correlated with theoretically related task measures and other relevant constructs. In addition, it showed temporal stability, thus concluding that the instrument was a reliable and valid multidimensional measure for determining task purpose.

Catalano (2017), in the United States, reviewed the psychometric properties of the Metacognitive Strategies for Library Research Skills scale in 224 graduate and undergraduate students at two institutions, finding as a result that the instrument proved to be a valid and reliable measure of metacognitive strategies in the context of information literacy and library research. On the other hand (Fingers & Fouskakis, 2021), in Athens, reviewed the validity and reliability of the Inventory of Approaches to Study Skills for Students in a sample of 1181 students from a higher education institution, as a result the data set was validated using reliability analysis which they confirmed with the results of previous studies.

In the national context there is the habit inventory known by its acronym CASM-85 by Vicuña (1998) but it is an extremely extensive test that is tedious to apply and its conditions may cause the responses to present some type of bias on the part of the participants. To this test Figueroa-Quiñones et al. (2019) performed an adaptation in students from Peru, finding that the CFI and TLI was  $< .9$  and SRMR and RMSEA were  $\leq .10$  and  $\leq .09$  and an Omega reliability of 0.84 in its reduced version eliminating 8 items. Under the premise that study habits are fundamental factors for the best performance of students in academic contexts, research has been conducted in our environment (Arrieta-Reales & Arnedo-Franco, 2020; Talero-Gutiérrez et al., 2015), as well as enabling the optimal development of social and emotional competencies within any space of social interaction (Brackett et al., 2012; Hsieh, 2023). However, the literature review indicates that there are limitations to instruments that allow evaluating the perception that students have about their study habits, despite what is pointed out in Vicuña's inventory (1998), but taking into account that this one evaluates more the attitude and due to the extension of its items, so its application would demand more time, there is a need to determine the internal structure and reliability of an instrument that directly evaluates study habits, from the perception of the students. For

this reason, the objective of this study is to analyze the evidence of the validity of the internal structure and reliability of the study habits perception questionnaire.

## 2. Method

It was a psychometric type of research because it was oriented to confirm theoretical models and how they adapt to the study context. In terms of its design, it was instrumental because its purpose was to determine the evidence of validity and reliability (Ato et al., 2013). In the context that concerns us, it is the scale of perception of study habits in university contexts.

The sample was composed of 287 students from private universities in the city of Chiclayo, Peru, selected by a non-probabilistic sampling by criteria, where both sexes were considered as sociodemographic variables, being 129 men and 158 women whose ages ranged from 17 to 20 years (75), 21 to 25 years (162) and 26 years and older (50). In addition, from the first to the tenth cycle and from different careers were considered: systems engineering (56), sociology (78), communication sciences (18), health sciences (75), administration (21), and from environmental engineering careers (18) and from other careers a smaller number was from other careers (11). Inclusion criteria were that they belonged only to university institutions and exclusion criteria were those who responded to the questionnaire within the established time or refused to participate voluntarily.

The instrument used in this work was the scale of perception of study habits, constructed by Madrid et al. (2017) in Mexico, where its objective was to evaluate the perception of study habits from the perspective of students in university contexts, its application time is approximately 10 minutes including the explanation of the general instructions before its development. As for its structure, it is composed of three factors oriented to learning, organization and time management, it has 19 items with a Likert-type response scale where 1 implies never and 5 always. As far as is known, there are no revisions of its psychometric properties in subsequent studies, therefore, only those established by the original authors of the instrument are available. In construct validity a KMO of 0.92 was obtained and Bartlett's test of sphericity was ( $\chi^2 = 3782.469$ ;  $p \leq .01$ ), the exploratory factor analysis resulted in the configuration of three factors with factor loadings greater than 0.40, which explained 52.74 of the total variance explained, the reliability was 0.90.

Previously, contact was established with the authorities of the universities and the teachers of each faculty, requesting their references and addresses for the identification of the target population, to whom the questionnaire was sent through the WhatsApp application and via email. After acceptance, with prior informed consent, the participants were instructed to support the application of the instruments, sharing it online with their closest contacts. The application process took approximately 15 days. Once this process was completed, the survey responses were checked to ensure that they were complete.

The limits of central tendency of the data were estimated by means of the asymmetry and kurtosis and the construct validity was analyzed by means of the confirmatory factor analysis using the comparative adjustment indexes (CFI and TLI), as well as the parsimony indexes RMSEA and SRMR. To estimate reliability, both Cronbach's Alpha and Omega coefficients were used in order to know how much they differ in their results, and it was found that there is not much difference; however, Omega has been considered as the reliability value to be reported.

## 3. Results

The following is a description of the results of the research considering the proposed objective. According to table 1 of descriptive statistics, it is observed that there are 287 students, the minimum responses are 1, the maximum values are equal to 5; the arithmetic mean is between 4 and 4 for most of the items; and the standard deviation is less than 1 for all test items; with respect to the measures of skewness and kurtosis it is observed that the data do not follow a normal curve, since not all values are between -1.5 and +1.5, therefore, non-parametric tests will be used for correlational and comparative analyses.

**Table 1.** Descriptive statistics of the items

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Media</b>	<b>SD</b>	<b>Asymmetry</b>	<b>Kurtosis</b>
<b>P1</b>	287	1	5	4,34	,786	-1,823	5,224
<b>P2</b>	287	1	5	3,87	,943	-,723	,063
<b>P3</b>	287	1	5	4,37	,786	-1,712	4,207
<b>P4</b>	287	1	5	4,23	,671	-1,216	4,471
<b>P5</b>	287	1	5	4,41	,797	-1,846	4,680
<b>P6</b>	287	1	5	4,21	,710	-1,336	4,129
<b>P7</b>	287	2	5	4,40	,593	-,506	-,061
<b>P8</b>	287	1	5	4,01	,738	-,862	1,788
<b>P9</b>	287	1	5	4,20	,656	-,751	1,990
<b>P10</b>	287	1	5	3,86	,850	-,729	,814
<b>P11</b>	287	1	5	3,83	,847	-,875	1,369
<b>P12</b>	287	1	5	3,99	,762	-1,135	2,756
<b>P13</b>	287	1	5	3,83	,858	-,800	,838
<b>P14</b>	287	1	5	3,95	,720	-,715	1,259
<b>P15</b>	287	1	5	3,97	,761	-1,044	2,232
<b>P16</b>	287	1	5	3,77	,833	-,835	1,360
<b>P17</b>	287	1	5	3,77	,884	-,841	,897
<b>P18</b>	287	1	5	3,84	,823	-,799	,950
<b>P19</b>	287	1	5	3,90	,798	-,898	1,422

The results in Table 2 show that the Chi-square test is 1.85, indicating that the model proposed by the original authors is highly significant for the sample used. The comparative fit indices are above 0.95 (CFI=0.992), (TLI=0.991), indicating that the model has an adequate fit according to literature (Hutchinson & Olmos, 1998; Sun, 2005). Similarly, the goodness-of-fit indices are located within the recommended categories (RMSEA=0.054, 0.044, 0.064), observing the values of the upper limit, it is evident that they are below 0.08. The (SRMR=0.063), which means that the goodness of fit is significant. (Hu & Bentler, 1999).

**Table 2.** Comparative and goodness-of-fit indices

<b>Statistician</b>	<b>Value</b>
Chi-square test (X2 272.290/149)	1.82
Comparative Fit Index (CFI)	0.992
Tucker-Lewis Index (TLI)	0.991
Root mean square error of approximation (RMSEA)	0.054
RMSEA 90% CI lower bound	0.044
RMSEA 90% CI upper bound	0.064
Standardized root mean square residual (SRMR)	0.063

Table 3 shows that all the items of the scale of perception of study habits with its 19 items fit very well with the data collected from a sample of university students in Peru. In this sense, the first factor called learning orientation is composed of items (1,2,3,4,5,6,7,8,9,10), the second factor called organization is constituted by items (11,12,13,14,15) and the last factor called time management comprises items (16,17,18,19), all items have absolute values between 0.40 and 0.80 and their correlations are highly significant.

**Table 4.** Factor analysis of the study habits perception scale.

	Indica tor	Symbol	Estimate	Std. Error	z- value	P	95% Confidence Interval	
							Lower	Upper
Factor 1	P1	$\lambda_{11}$	0.560	0.023	24.515	< .001	0.515	0.605
	P2	$\lambda_{12}$	0.357	0.021	17.075	< .001	0.316	0.398
	P3	$\lambda_{13}$	0.667	0.020	32.846	< .001	0.627	0.707
	P4	$\lambda_{14}$	0.727	0.018	39.690	< .001	0.691	0.763
	P5	$\lambda_{15}$	0.634	0.022	28.972	< .001	0.591	0.677
	P6	$\lambda_{16}$	0.566	0.020	28.961	< .001	0.528	0.605
	P7	$\lambda_{17}$	0.757	0.019	40.230	< .001	0.720	0.794
	P8	$\lambda_{18}$	0.492	0.020	25.137	< .001	0.454	0.531
	P9	$\lambda_{19}$	0.768	0.018	43.868	< .001	0.734	0.802
	P10	$\lambda_{110}$	0.845	0.018	47.500	< .001	0.810	0.880
Factor 2	P11	$\lambda_{21}$	0.726	0.017	41.503	< .001	0.692	0.760
	P12	$\lambda_{22}$	0.723	0.018	40.276	< .001	0.688	0.759
	P13	$\lambda_{23}$	0.812	0.017	46.905	< .001	0.778	0.846
	P14	$\lambda_{24}$	0.766	0.017	44.288	< .001	0.732	0.799
	P15	$\lambda_{25}$	0.779	0.017	45.023	< .001	0.745	0.813
Factor 3	P16	$\lambda_{31}$	0.806	0.021	38.772	< .001	0.765	0.847
	P17	$\lambda_{32}$	0.697	0.020	34.497	< .001	0.657	0.736
	P18	$\lambda_{33}$	0.729	0.020	35.960	< .001	0.689	0.769
	P19	$\lambda_{34}$	0.445	0.020	22.641	< .001	0.407	0.484

Figure 1 shows the diagram of the model whose fit has been checked with the original test in terms of the structure of its dimensions and the number of items, it can be seen graphically how is the distribution of the items for each factor, it is also observed that the factor loadings are on average 0.40 and 0.87. Therefore, scientifically the three-factor model has a good fit to the data.

Figure 1. Diagram of the model based on internal structure

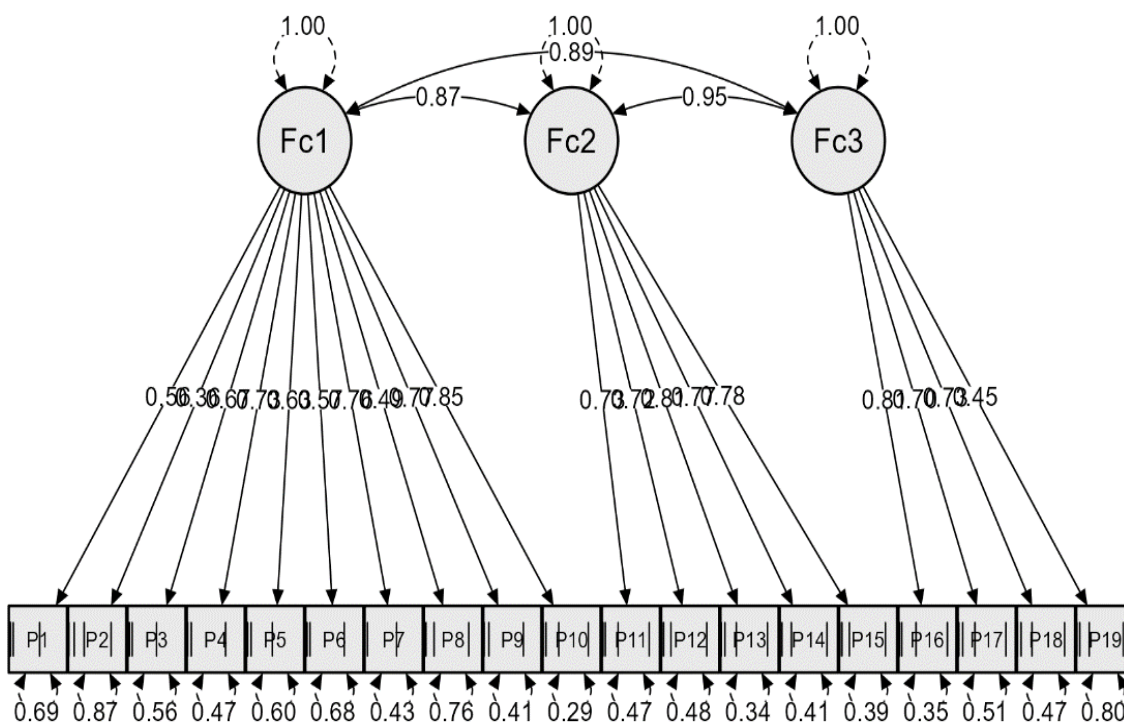


Table 4 shows that all the dimensions of the study habits perception scale have highly significant correlations, since the correlation coefficient is above 0.80 and a significance of 0.000. This means that there is a good relationship between the dimensions and the variable, confirming that the proposed dimensions measure the study habits construct.

Table 5. Relationship between dimensions and the total element

		Learning orientation	Organization	Time management
Spearman's Rho	Study habits	Correlation coefficient	,924**	,847**
		Sig. (bilateral)	,000	,000
		N	287	287

Table 5 presents the results of the reliability values of the scale of perception of study habits, obtained by means of Cronbach's Alpha and Omega, both procedures show acceptable reliability values. Taking the Omega coefficient as a reference, the general reliability is 0.90 and the dimensions are higher than 0.80.

Table 6. Reliability of the study habits perception scale.

Variables	Cronbach's $\alpha$	McDonald's $\omega$
D1: Learning orientation	0.807	0.822
D2: Organization	0.821	0.822
D3: Time management	0.683	0.695
Overall reliability	0.900	0.905

Table 6 presents the proposed percentile norms of the study habits perception scale, three evaluation categories have been identified. For example, at the general level, students who obtain 63 to 71 direct points are located within a percentile of 5 to 25 in the low category; those with 73 to 82 points are in a percentile of 26 to 75, which is equivalent to an average category, and finally those who obtain 83 to 95 points are in the high category. The same procedure should be followed to convert the direct scores of the dimensions. In this way it is possible to determine the level of perception of the students. Low



categories imply difficulties in having a good orientation to learning, organization and time management; an average level implies that they partially perform well in these cognitive processes; and finally high levels imply that students perform very well in organization, time management to have a better orientation to learning.

**Table 7.** Percentile norms of the study habits perception scale.

		Learning orientation	Organizatio n	Time management	Study habits	Categories
N	Valid	287	287	287	287	
	Media	41,91	19,56	15,28	76,75	
	Deviation	4,589	3,020	2,392	8,904	
	Minimum	12	6	7	25	
	Maximum	50	25	20	95	
Percentiles	5	34	15	11	63	Under
	10	37	16	12	66	
	15	38	17	13	68	
	20	39	17	14	70	
	25	39	18	14	71	
	30	40	18	14	73	Average
	35	40	19	15	74	
	40	41	19	15	75	
	45	41	20	15	76	
	50	42	20	16	77	
	55	42	20	16	77	
	60	43	20	16	78	
	65	44	20	16	80	High
	70	45	20	16	81	
	75	45	21	16	82	
	80	46	22	17	83	
	85	47	22	17	86	
90	48	24	18	88		
95	49	25	20	92		
100	50	25	20	95		

#### 4. Discussion

Due to the importance of study habits in the academic performance of university students and in the various spheres in which they interact (Córdoba et al., 2014; Iglesias-García et al., 2016). In this study, having an instrument that presents an adequate construct validity and reliability is very necessary, since it helps to identify and understand the difficulties that young people face in academic situations. For this reason, the present research seeks to establish three psychometric processes of the study habits perception scale, which are construct validity, reliability and percentile norms.

The findings related to internal structure show that the chi-square was 1.82, a value that is between 1 and 3 recommended by the literature (Sun, 2005; Hutchinson & Olmos, 1998), in the same sense the comparative fit indices CFI and TLI are in an optimal range being greater than 0.95, the parsimony and goodness-of-fit indices are less than 0.08, values supported by scientific evidence (Hu & Bentler, 1999). Regarding the factor loadings, it was observed that all 19 items remain in their original structure proposed by Madrid et al., (2017), this is explained with more evidence when observing the fit and goodness of fit indices. This means that the model to evaluate the perception of study habits in Mexico maintains its same structure when applied to university students in the city of Chiclayo.

Although it is true that the authors of the instrument only performed an exploratory factor analysis, due to the scale reporting a KMO of 0.92, after a process of data analysis, three factors were validated with factor loadings above 0.40. Important mention should also be made of the findings of Figueroa-Quñones et al. (2019) who when adapting the study habits inventory of Vicuña (1998) reported CFI and TLI indices were greater than 0.9 and SRMR and RMSEA were  $\leq .10$  and  $\leq .09$ . Another important fact to

note is that when establishing the correlations between the factors and the total item, significant values greater than 0.80 were found. Other works related to study habits such as metacognitive strategies present adequate construct validity (Catalano, 2017). Finally, with the analysis to which the instrument has been submitted, it can be asserted that it presents an adequate internal structure, corroborating the theoretical assumptions with the practice in university contexts.

The reliability analysis by means of the Omega coefficient indicated values above 0.90 and in its dimensions were 0.80, which means that the results present a lower error and variability in terms of time and space, that is, they can be applied in different places and at different times, and the results of the scale will not have a significant variability. When contrasting these findings with those reported by Madrid et al., (2017), reliability indexes between 0.75 and 0.90 are evidenced, similar to those found in this research. Other validated study habits instruments show analogous results (Kaner & Kesiktas, 2008), likewise others, which evaluate the purpose with the task, approaches to study skills for students have shown acceptable reliability indexes (Saban, 2013; Dedos & Fouskakis, 2021). The findings allow strengthening the theoretical value of the instrument, since its results present as a fundamental characteristic the reproducibility in all the aspects it intends to measure, specifically how it is found, the processes of orientation to learning, the abilities to organize oneself and above all how the time for study is managed.

The last objective was to elaborate a proposal on the percentile norms of the study habits scale. It is important to point out that the creators of the instrument only dealt with the internal structure and reliability; they have not obtained scales that would allow a characterization of how study habits are presented in the university population, and knowing the relevance that having these percentile measures would have for the instrument. Based on this need, we proceeded to elaborate these norms from the general level and by dimensions. The categories identified were basically three. Low, which includes percentiles below 25; average, which includes percentiles from 26 to 75; and finally, high, which includes percentiles above 76 (Table 6). In this way, the direct scores can be converted into percentiles and, consequently, the level of perception of the students' study habits can be known.

It is important in this section and as a final aspect, to mention that the perception of study habits is a substantial element to obtain a better academic performance and therefore a greater success associated with the harmonious development of social and emotional competencies (Quilez-Robres et al., 2021; Hassanbeigi et al., 2011; Brackett et al., 2012; Hsieh et al., 2022), therefore, it is extremely useful to be able to have an adequate instrument in its internal structure and that on the basis of a solid theory, as is the present scale, allows to clearly distinguish people who can plan, organize and manage time in an adequate and sensible way from those who cannot do it and therefore prevent them from complying with the activities prescribed by teachers (Moreira et al., 2013; De la Fuente & Cardelle-Elawar, 2009; Howard, 2021). For this reason, a valid, reliable scale with local standards will make it possible to achieve this purpose and, together with the diagnosis, develop strategies and programs aimed at substantially improving these study habits.

## 5. Conclusions

This research covers a fundamental need that has to do with the limitations of a valid, reliable and standardized instrument that allows the identification of the characteristics of the perception that students have of their study habits. In this sense, the model proposed by the original authors is highly significant for the sample used, due to the fact that the comparative adjustment and goodness-of-fit indexes are optimal, which ratifies the factorial structure of the 19 items grouped in its three dimensions.

The practical implications of this work are that the instrument may be useful to identify the characteristics of planning, organization and, above all, learning orientation, and based on these results it will be possible to elaborate and develop various intervention proposals that will help students achieve better performance in the aforementioned areas, and as a consequence, succeed in their learning, which will allow them to satisfactorily fulfill their future expectations in terms of their professional training.

One of the limitations noted is that, although it is true that the instrument is valid in its internal structure and reliability, it does not have convergent validity or discriminant validity. Therefore, it



would be necessary for future research to carry out this type of validity and thus be able to determine how the scale of perception of study habits relates to other instruments that measure the same variable, thus giving the scale greater consistency to become an instrument of evaluation and diagnosis in the educational field.

#### **4. Acknowledgments**

We would like to thank each of the colleagues who made this research possible, since with their help we were able to collect information from the various private universities in the city of Chiclayo - Peru; we would also like to express our gratitude to the university students who participated in the study and who at all times showed their commitment and collaboration with the application of the survey.

## References

- Arrieta-Reales, N., & Arnedo-Franco, G. (2020). Sleep-inhibiting substances, study habits and academic performance in medical and nursing students from universities in the city of Barranquilla, Colombia. *Educación Médica*, 21(5), 306-312. <https://doi.org/10.1016/j.edumed.2018.10.009>.
- Ato, M., López-García, J. J., & Benavente, A. (2013). A classification system for research designs in psychology. *Annals of Psychology*, 29(3). <https://doi.org/10.6018/analesps.29.3.178511>.
- Brackett, M. A., Rivers, S. E., Reyes, M. R., & Salovey, P. (2012). Enhancing academic performance and social and emotional competence with the RULER feeling words curriculum. *Learning and Individual Differences*, 22(2), 218-224. <https://doi.org/10.1016/j.lindif.2010.10.002>.
- Bray, J. H., Maxwell, S. E., & Schmeck, R. R. (1980). A Psychometric Investigation of the Survey of Study Habits and Attitudes. *Applied Psychological Measurement*, 4(2), 195-201. <https://doi.org/10.1177/014662168000400206>.
- Bulent, A., Hakan, K., & Aydin, B. (2015). An Analysis of Undergraduates' Study Skills. *Procedia - Social and Behavioral Sciences*, 197, 1355-1362. <https://doi.org/10.1016/j.sbspro.2015.07.389>
- Catalano, A. (2017). Development and Validation of the Metacognitive Strategies for Library Research Skills Scale (MS-LRSS). *The Journal of Academic Librarianship*, 43(3), 178-183. <https://doi.org/10.1016/j.acalib.2017.02.017>
- Córdoba, L. G., Luengo, L. M., & García, V. (2014). Analysis of knowledge about healthy breakfast and its relationship with lifestyle habits and academic performance in compulsory secondary education. *Endocrinology and Nutrition*, 61(5), 242-251. <https://doi.org/10.1016/j.endonu.2013.11.006>
- De la Fuente, J., & Cardelle-Elawar, M. (2009). Research on action-emotion style and study habits: Effects of individual differences on learning and academic performance of undergraduate students. *Learning and Individual Differences*, 19(4), 567-576. <https://doi.org/10.1016/j.lindif.2009.07.009>
- Fingers, S. G., & Fouskakis, D. (2021). Dataset and validation of the approaches to study skills inventory for students. *Scientific Data*, 8(1), 158. <https://doi.org/10.1038/s41597-021-00943-6>.
- Figuroa-Quiñones, J., Pomahuac Carhuayal, J. W., Chávez, Y., Gómez, H., Portocarrero, R., Gamero-Vega, G., Calderón-Giraldo, A., López, E., Castro, M., & Bazo-Alvarez, J. C. (2019). Psychometric properties of the CASM-85 Study Habits Inventory: a multicenter study with Peruvian high school students. *Liberabit: Peruvian Journal of Psychology*, 25(2), 139-158. <https://doi.org/10.24265/liberabit.2019.v25n2.02>.
- Hassanbeigi, A., Askari, J., Nakhjavani, M., Shirkhoda, S., Barzegar, K., Mozayyan, M. R., & Fallahzadeh, H. (2011). The relationship between study skills and academic performance of university students. *Procedia - Social and Behavioral Sciences*, 30, 1416-1424. <https://doi.org/10.1016/j.sbspro.2011.10.276>.
- Howard, V. (2021). Undergraduate mental health nursing students' reflections in gaining understanding and skills in the critical appraisal of research papers - An exploration of barriers and enablers. *Nurse Education in Practice*, 55, 103143. <https://doi.org/10.1016/j.nepr.2021.103143>
- Hsieh, M. (2023). The Relationships Between Home-Based Parental Involvement, Study Habits and Academic Achievement among Adolescents. *The Journal of Early Adolescence*, 43(2), 194-215. <https://doi.org/10.1177/02724316221101527>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Hutchinson, S. R., & Olmos, A. (1998). Behavior of descriptive fit indexes in confirmatory factor analysis using ordered categorical data. *Structural Equation Modeling: A Multidisciplinary Journal*, 5(4), 344-364. <https://doi.org/10.1080/10705519809540111>
- Iglesias-García, M. T., Gutiérrez-Fernández, N., Loew, S. J., & Rodríguez-Pérez, C. (2016). Study habits and techniques in adolescents with attention deficit disorder with or without hyperactivity. *European Journal of Education and Psychology*, 9(1), 29-37. <https://doi.org/10.1016/j.ejeps.2015.07.002>.

- Kaner, S., & Kesiktaş, A. D. (2008). The Psychometric Properties of the Parent, Teacher and Student Versions of the Study Skills Scale. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 41(2), 293-321. [https://doi.org/10.1501/Egifak\\_0000001132](https://doi.org/10.1501/Egifak_0000001132)
- Madrid, E. M., Angulo, J. A., Fernández, M. T., & Olivares, K. M. (2017). Psychometric properties of an instrument on perception of study habits. In *Technology and learning: advances in Hispanic academia*. <https://bit.ly/3H6RBa9>.
- Mardini, G. H., & Mah'd, O. A. (2022). Distance learning as emergency remote teaching vs. traditional learning for accounting students during the COVID-19 pandemic: Cross-country evidence. *Journal of Accounting Education*, 61, 100814. <https://doi.org/10.1016/j.jaccedu.2022.100814>
- Moreira, P. A. S., Dias, P., Vaz, F. M., & Vaz, J. M. (2013). Predictors of academic performance and school engagement - Integrating persistence, motivation and study skills perspectives using person-centered and variable-centered approaches. *Learning and Individual Differences*, 24, 117-125. <https://doi.org/10.1016/j.lindif.2012.10.016>.
- Quilez-Robres, A., González-Andrade, A., Ortega, Z., & Santiago-Ramajo, S. (2021). Intelligence quotient, short-term memory and study habits as academic achievement predictors of elementary school: A follow-up study. *Studies in Educational Evaluation*, 70, 101020. <https://doi.org/10.1016/j.stueduc.2021.101020>
- Saban, A. İ. (2013). A study of the validity and reliability study of the homework purpose scale: A psychometric evaluation. *Measurement*, 46(10), 4306-4312. <https://doi.org/10.1016/j.measurement.2013.08.027>
- Smeds, M. R., Thrush, C. R., McDaniel, F. K., Gill, R., Kimbrough, M. K., Shames, B. D., Sussman, J. J., Galante, J. M., Wittgen, C. M., Ansari, P., Allen, S. R., Nussbaum, M. S., Hess, D. T., Knight, D. C., & Bentley, F. R. (2017). Relationships between study habits, burnout, and general surgery resident performance on the American Board of Surgery In-Training Examination. *Journal of Surgical Research*, 217, 217-225. <https://doi.org/10.1016/j.jss.2017.05.034>.
- Sun, J. (2005). Assessing Goodness of Fit in Confirmatory Factor Analysis. *Measurement and Evaluation in Counseling and Development*, 37(4), 240-256. <https://doi.org/10.1080/07481756.2005.11909764>.
- Talero-Gutiérrez, C., Sánchez-Torres, J. M., & Velez-van-Meerbeke, A. (2015). Learning skills and academic performance in children and adolescents with absence epilepsy. *Neurology (English Edition)*, 30(2), 71-76. <https://doi.org/10.1016/j.nrleng.2013.10.021>.
- Tarchi, C., Brante, E. W., Jokar, M., & Manzari, E. (2022). Pre-service teachers' conceptions of online learning in emergency distance education: How is it defined and what self-regulated learning skills are associated with it? *Teaching and Teacher Education*, 113, 103669. <https://doi.org/10.1016/j.tate.2022.103669>
- Trung, T., Hoang, A.-D., Nguyen, T. T., Dinh, V.-H., Nguyen, Y.-C., & Pham, H.-H. (2020). Dataset of Vietnamese student's learning habits during COVID-19. *Data in Brief*, 30, 105682. <https://doi.org/10.1016/j.dib.2020.105682>.
- Vicuña, L. (1998). *Study habits inventory. CASM- 85, Revision-98*. . <https://bit.ly/3hTiKDo>