
Estilos de aprendizaje de los estudiantes de la especialidad Zootecnia - Veterinaria

Learning styles of students of the specialty Zootechnics – Veterinary

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Resumen: El objetivo de este trabajo es identificar los estilos de aprendizaje de los estudiantes de la especialidad Zootecnia – Veterinaria del Instituto Politécnico Agropecuario (IPA) “Manuel Simón Tames Guerra”, del municipio Niceto Pérez García, de la provincia Guantánamo, de acuerdo con la teoría de Honey y Alonso; se establecen relaciones significativas entre los estilos de aprendizaje y el género de los estudiantes, y entre los estilos de aprendizaje y el rendimiento académico de estos.

Palabras clave: Estilos de aprendizaje; Teoría de Honey y Alonso; Rendimiento académico; Zootecnia - Veterinaria

Abstract: The objective of this paper is to identify the learning styles of the students of the specialty Zootechnics - Veterinary of the "Manuel Simón Tames Guerra" Agricultural Polytechnic Institute (IPA in Spanish) of the Niceto Pérez García municipality, in Guantánamo province, according to the theory of Honey and Alonso; significant relationships between the learning styles and the gender of the students, and between the learning styles and the academic performance are established.

Keywords: Learning styles; Honey and Alonso Theory; Academic performance; Zootechnics -Veterinary

Introduction

According to Cazau (2015) the concept of learning style refers to the fact that when a person wants to learn something they always use their own method or set of strategies. Although the specific strategies used vary according to what we want to learn, each one of us tends to develop global preferences. Those preferences or tendencies to use constitute our learning.

According to Keefe (1988), Alonso and Gallego (1994) learning styles are the cognitive, affective and physiological traits that serve as relatively stable indicators of how students perceive interactions and respond to their learning environments. On the other hand, López

(2003) also establishes that learning styles are general cognitive strategies when dealing with tasks in which mental operations are involved such as perceiving, memorizing, thinking, learning, acting.

Everyone learns in a different way. For example, in the same second language study group, although each member has the same age, motivation and culture, has received the same explanations from the teacher, has done the same activities, has done the same exercises, not all learn likewise, neither at the same speed nor with the same performance, some go better with writing, while others find grammar easier.

Although these differences are due to several factors, the way of learning could be a significant factor. So, learning styles are especially important because they offer great possibilities for action to achieve a more effective teaching and learning process.

Teaching and learning arise in response to the need for communication among men. Learning is fundamentally based on student-centered teaching, so that individual characteristics are essential for learning.

Taking into account the above-mentioned aspects, it is the objective of this work to identify the learning styles of students of the Zootechnics -Veterinary specialty of the Polytechnic Institute of Agriculture (IPA) "Manuel Simón Tames Guerra", according to the theory of Honey and Alonso, to establish if there are significant relationships between the learning styles and the gender of the students, and between the learning styles and their academic performance.

Development

The research approach is quantitative, and the type of study is to correlate, since we measure two or more variables to see if they are related or not in the same participants, and then we analyze the correlation. For the present research, we intend to establish a relationship between the learning styles and the socio-academic factors of the students.

The sample group was formed by all the students of the Veterinary - Zootechnics specialty of the IPA "Manuel Simón Tames Guerra" of the Niceto Pérez García municipality, of the

Guantánamo province. The sample was determined randomly, consisting of 167 students distributed in nine semesters.

Of the 167 students, 96 are women and 71 are men. The Honey-Alonso questionnaire (CHAEA) was applied for the evaluation of learning styles. The students of each group answered the questionnaires in the usual academic schedule. The duration of the completion of the questionnaire ranged between 25 and 30 minutes.

The Honey-Alonso questionnaire (CHAEA) consists of 80 questions (20 items for each of the four styles) that are answered by stating whether you agree (sign +) or disagree (sign -). The maximum score in each style is 20. The questionnaire takes into account four essential learning styles: active, reflective, theoretical, pragmatic or practical.

The identification of the style of learning and the preference for the style was made based on the General Interpretation Scale proposed by Alonso *et al* (1994).

ESTILOS	PREFERENCIA				
	Muy baja	Baja	Moderada	Alta	Muy alta
ACTIVO	0-6	7-8	9-12	13-14	15-20
REFLEXIVO	0-10	11-13	14-17	18-19	20
TEORICO	0-6	7-9	10-13	14-15	16-20
PRAGMATICO O PRATICO	0-8	9-10	11-13	14-15	16-20

Tabla 1. Baremo de Alonso y col. 1994.

The academic performance was based on the registration of the marks obtained in the partial exam of the subject Animal Health. Operationally, this variable will be expressed in a note from 1.0 to 5.0.

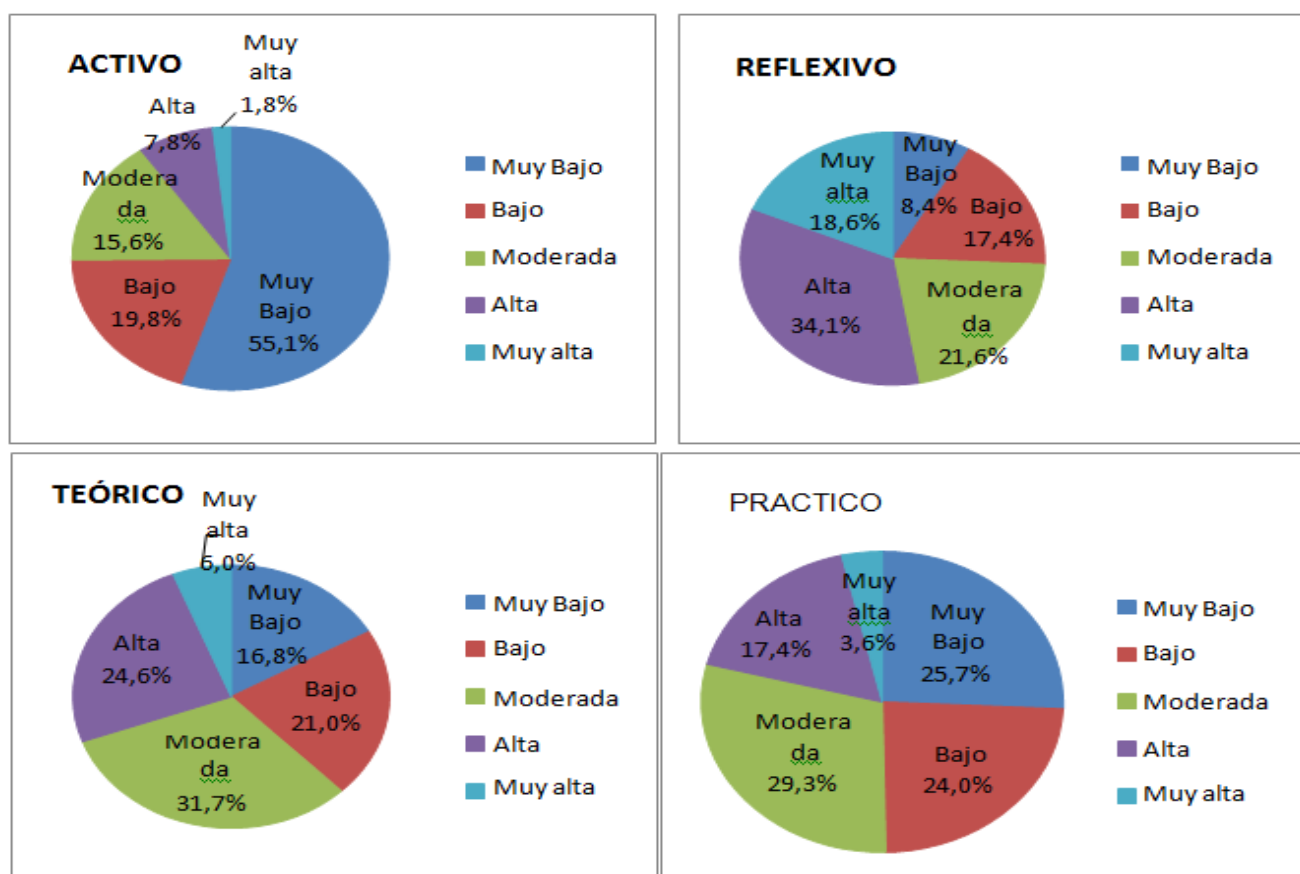
The correlation between the results obtained with CHAEA, gender and academic performance was established through the Mann-Whitney U statistic and the Spearman R statistic.

The tests that were used are parametric, since the distribution model of the population under study is known, and a finite number of parameters of this distribution that must be estimated with the sample data is unknown.

For the analysis of these data, the Statistical Program SPSS was used, through which the means and percentages were calculated.

For the analysis of the results we used Cronbach's alpha, which is a coefficient that serves to measure the reliability of a scale of measurement, and which alpha name was made by Cronbach, is a weighted average of the correlations between the variables (or items) that are part of the scale. It can be calculated in two ways: from the variances (Cronbach's Alpha) or from the item correlations (Cronbach's standardized Alpha).

According to the objectives established, graph 1 show the results achieved in the intensity of preference of the learning styles of the students.



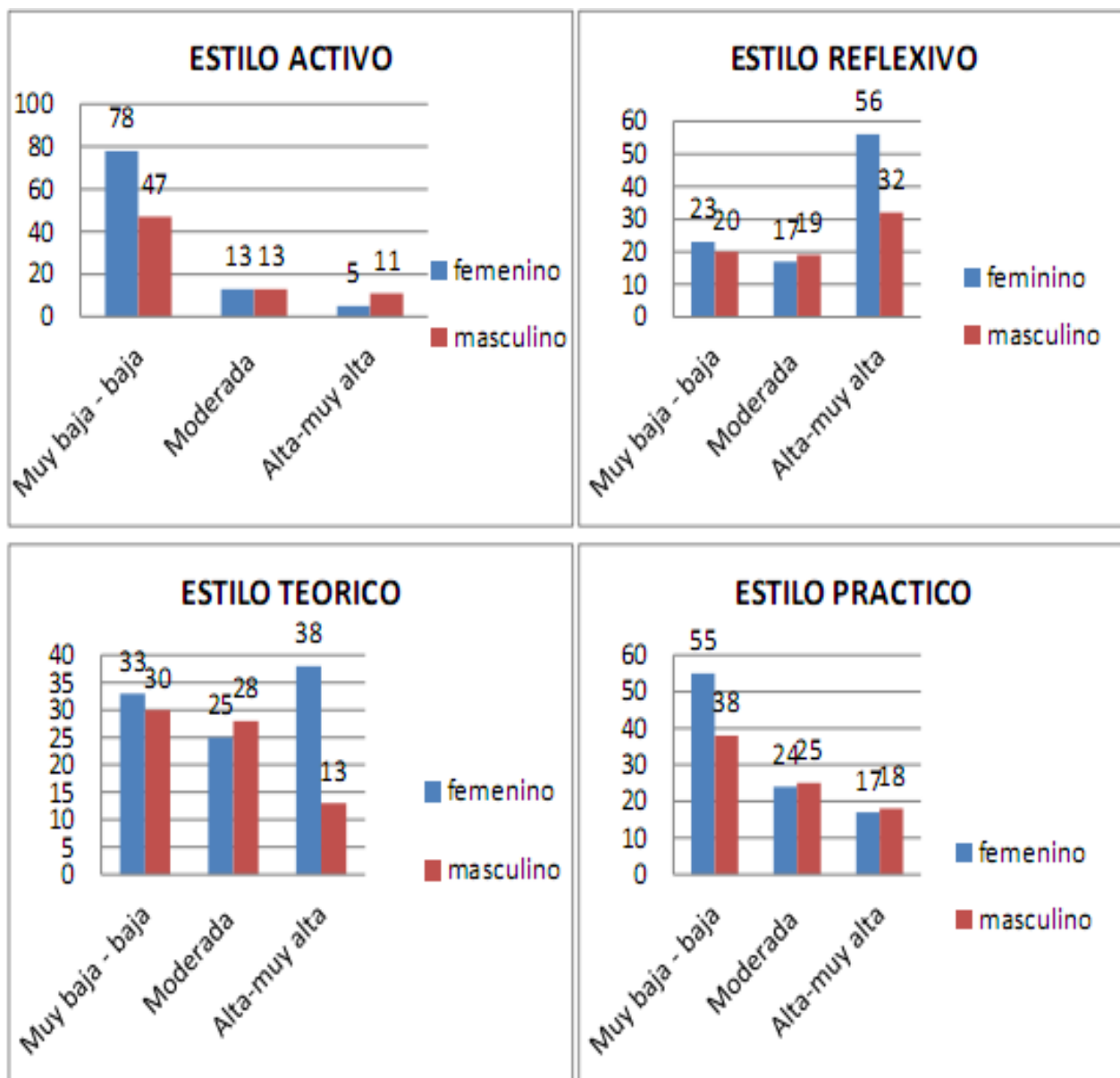
Gráfica 1. Intensidad de preferencia de los estilos de aprendizaje de los estudiantes.

As shown in table 2, the general tendency of second language students identifies them as predominantly reflexive.

NIVELES	ACTIVO	REFLEXIVO	TEÓRICO	PRAGMÁTICO
Muy bajo	55,1%	8,4%	16,8%	25,7%
Bajo	19,8%	17,4%	21,0%	24,0%
Moderada	15,6%	21,6%	31,7%	29,3%
Alta	7,8%	34,1%	24,6%	17,4%
Muy alta	1,8%	18,6%	6,0%	3,6%

Tabla 2. Porcentaje de los estilos de aprendizaje en los estudiantes

Regarding the composition of the students by gender, 42.5% corresponds to men and 57.5% to women, and learning styles in both genders are predominantly reflective, same trend of the course as a whole: reflective men 45.1%; reflective women 58.3% (Graph 2)



Gráfica 2. Intensidad de preferencia de los Estilos de Aprendizajes de los alumnos según género: masculino, n= 71; femenino, n= 96

As shown in Table 3, the statistic values established that there is no significant difference ($p > 0.05$) between the reflective learning style and gender, there are significant differences ($p < 0.05$) between the styles of active learning, practical theory, and the genre.

	ACTIVO	REFLEXIVO	TEÓRICO	PRÁCTICO
U de Mann-Whitney	2694,500	3025,000	2817,500	2693,500
Sig. asintót. (bilateral)	,011	,200	,049	,017
a. Variable de agrupación: Género				

Tabla 3. Comparación entre los resultados del estilo de aprendizaje que tienen los estudiantes y el género

As shown in Table 4, when correlating academic performance and learning styles in students, the statistician's values established that there is no significant correlation ($p > 0.05$) between active, reflective, practical, active learning styles, and academic performance.

However, a significant correlation was established ($p < 0.05$) between the theoretical learning style and academic performance.

	ACTIVO	REFLEXIVO	TEÓRICO	PRÁCTICO
Rho de Spearman	,058	,097	,157	,075
Sig. (bilateral)	,453	,212	,043	,335
a. Variable de agrupación: rendimiento académico				

Tabla 4. Significancia en la relación entre los estilos de aprendizaje y los resultados académicos de los estudiantes .

The results reported in this study show that the predominant style of learning by the students of the Zootechnics - Veterinary specialty is the reflexive one.

When analyzing the data according to gender, the results show that there are significant differences between men and women in terms of active, theoretical and practical styles. The

existence of a significant correlation between theoretical style and academic performance is consistent with that found by Carmen Gloria (2011) in a study with students of two majors at the University of Concepción, in Chile, in which a significant correlation was established between academic performance and theoretical style in the students of Biomedical Civil Engineering.

Conclusions

Regarding the distribution of learning styles in the whole sample, it can be affirmed that among the four learning styles (active, reflective, theoretical and practical), the most prevalent in the students of the specialty Zootechnics -Veterinary it is the reflective style, and the one that less predominates is the active style.

Comparing learning styles with the socio-academic gender factor, it can be concluded that there are significant differences between men and women, and the variable style of active, theoretical, and practical learning. Men adopt more active and practical learning styles than women, and they are less theoretical.

Analyzing the relationship between learning styles and academic performance, it is identified that only the theoretical learning style has a significant correlation with academic performance.

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