











The academic motivation and learning of education students- UNASAM, 2022

[La motivación académica y aprendizaje de los estudiantes de la Facultad de Educación- Unasam, 2022]

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Resumen

El estudio tuvo como objetivo determinar si existe correlación significativa entre la motivación académica y el aprendizaje de los estudiantes. Por este motivo, se realizó la investigación sobre la motivación académica para mejorar la enseñanza y aprendizaje de los universitarios. El estudio es aplicado, siendo el nivel de investigación descriptiva- correlacional. La investigación fue transversal; puesto que se aplicó una sola vez la encuesta de la Escala el CEAP48; pero solo se empleó la EMAP-01 Subescala de Motivación al aprendizaje, que consta de 24 afirmaciones y notas. La muestra es aleatoria simple de 46 estudiantes matriculados en el semestre 2022-1. Se demostró que la aplicación la motivación académico y aprendizaje ocupa, el 71,7% (33) en el nivel más alto en la dimensión motivación rendimiento. Por lo tanto, la motivación mejora en el aprendizaje; sin embargo, es necesario que los docentes apliquen en sus clases este recurso didáctico, ya que está demostrado en los resultados. Se determinó que más del 50% de los encuestados están por encima de 3.96 en la media, es decir, tienen una actitud favorable. En promedio los sujetos se ubican en la motivación superficial. Asimismo, se desvían con respecto al promedio 0,631 unidades de la escala. Por lo tanto, el uso de este recurso beneficia al estudiante. Por último, se concluye que sí existe una adecuada relación significativa entre las variables, debido a una correlación moderada, es decir es favorable.

Palabras clave: Motivación académica, aprendizaje, superficial, rendimiento.

Abstract

The objective of the study was to determine if there is a significant correlation between academic motivation and student learning. For this reason, research on academic motivation was carried out to improve the teaching and learning of university students. The study carried out is applied, being the level of descriptive-correlational research. The research was cross-sectional; since the CEAP48 Scale survey was applied only once; but only the EMAP-01 Learning Motivation Subscale was used, which consists of 24 statements and notes. The sample is a simple random of 46 students enrolled in the 2022-1 semester. It was shown that the application of academic motivation and learning occupies 71.7% (33) at the highest level in the performance motivation dimension. Therefore, motivation improves in learning; however, it is necessary for teachers to apply this didactic resource in their classes, since it is demonstrated in the results. It was determined that more than 50% of the respondents are above 3.96 in the mean, that is, they have a favorable attitude. On average, the subjects are located in superficial motivation. Likewise, 0.631 scale units deviate from the average. Therefore, the use of this resource benefits the student. Finally, it is concluded that there is an adequate significant relationship between the variables, due to a moderate correlation, that is, it is favorable.

Keywords: Academic motivation, learning, superficial, performance.

I. Introduction

The present study was carried out considering that knowledge is the main tool for the progress of societies, nowadays updating learning processes is increasingly important to develop competencies, capacities, abilities and skills; Taking into account that academic motivation is essential in university students, this theme has generated at all educational levels, they continue to complain about the lack of motivation that their students have to learn, and a fact that the intrinsic motivation of the human being is modified, brings with it at birth, believing it is and transforming into extrinsic motivation as it develops. Logically, the teacher is the main role model for his students, a word or a gesture can motivate or inhibit the group. The role of the guide is to establish a positive and emotional environment that opens the way for security, motivation and dialogue, where all students feel confident in themselves to boost their academic performance (Velázquez and Hernández, 2020, p.12).

To consider an individualized and group comprehensive training, it is essential to know the learning styles, and based on this, propose strategies that improve student performance. Students with multiple learning styles tend to obtain better scores than those in which one learning style predominates (Jiménez et al., 2019, p.8). Regarding the use of motivational and learning strategies and their relationship with academic performance, the results show a high correlation between the application of motivational and learning strategies and academic performance. Among them, the correlations of self-efficiency, use of time and elaboration with performance stand out. It is evident that the students who achieved higher performance made use of these strategies to achieve their goal (Cardozo, 2008, p. 20).

It should be noted that the results indicate that students achieve their learning goals not only through the use of cognitive, metacognitive and volitional strategies, but also through the deployment of motivational strategies. Finally, the results obtained are aimed at suggesting a review of the instructional processes that take place in the university environment. A call for teachers at this level to direct their efforts to develop in the university student strategies that generate other learning (learning to learn); to take into account the motivational factors that can serve as catalysts to create a disposition in the student (Cardozo, 2008, p. 21). The strategies

used that had the most impact were the combination of theory and practice. Showing a real environment where students apply what they have learned in class motivates and captures the attention of students; Another useful resource was the use of videos – which make the class more dynamic and allow learning a broad subject in a short time. However, the diversity of strategies used during class is essential to improve student performance, even those who learn differently and who may be a minority, hence the importance of extending teaching strategies, since this broadens the range of learning in the construction of knowledge (Jiménez et al., 2019, p.8).

Consequently, it is convenient that educational institutions establish as one of the strategic objectives the development of skills that allow students to increase the feeling of self-efficacy, which will have a positive impact on their performance and on their intrinsic motivation characterized by the desire to learn (Velázquez and Hernández, 2020, p.9). That is why education is essential for the economic, political and social development of a country; To achieve meaningful learning, it is necessary for schools to have upright teachers, capable of promoting analytical participation, in the search for solutions to solve the problems that the nation presents (Velázquez and Hernández, 2020, p.11).

The objective was to determine if there is a significant correlation between academic motivation and learning. It is also necessary to mention the purpose of this research is to promote academic motivation in classes to improve learning.

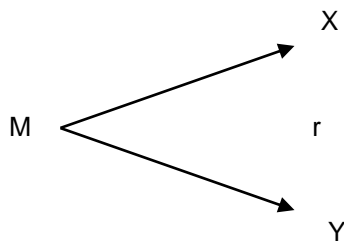
For this reason, research on academic motivation was carried out to improve student learning in higher education.

II. Materials and Methods

Type of research

The study carried out is applied (since existing theoretical approaches have been applied), with the level of research being descriptive-correlational (since the behavior of the variables and dimensions analyzed has been described in order to later correlate them). The research was cross-sectional; since it was carried out only once and applied the mixed method for interpretation and analysis.

Respond to the following scheme:



Where:

M: sample

X: Academic motivation

Y: learning

r: Correlation

Population

In the study Hernández et al. (2014) indicated about this section "that it refers to the group of concordant cases with a row of precisions, and that are accommodated in relation to their contents, place, characteristics and time" (p.174). It consists of 500 students enrolled in the 2022-1 semester, which constitute the study population of the Faculty of Education of Unasam-Huaraz.

Sample

To determine the sample that reflects a high degree of reliability and a low percentage of error, the following statistical formula was used:

Formula

$$n = \frac{\left[\frac{z - \alpha/2}{d} \right]^2 \cdot p(1-p)}{1 + 1/N \cdot \left[\frac{z - \alpha/2}{d} \right]^2 \cdot p(1-p) - 1/N}$$

Where:

n = sample size

N = population size, total number of students = 500 (enrolled, 2022-1-Unasam)

z = value corresponding to the Gaussian distribution = 1.96 for $\alpha = 0.05$

p = expected prevalence of the parameter to be evaluated. As in this case it is unknown, applying the most unfavorable option (p = 0.5), which makes the sample size larger.

q = 1-p (p = 50%, q = 50%)

d = precision error (in this case we want 13.68%)

α = significance level of 0.05

$$n = \frac{\left[\frac{1.96 - 0.05/2}{0.145} \right]^2 \cdot 0.5(1-0.5)}{1 + 1/500 \cdot \left[\frac{1.96 - 0.05/2}{0.145} \right]^2 \cdot 0.5(1-0.5) - 1/500}$$

The number of students is:

$$n = 50.0183951 / 1.09803679 = 45.5525676 = 46$$

Data Collection Techniques

For data collection, survey techniques were applied: a questionnaire, the CEAP48 Scale; but only the EMAP-01 Learning Motivation Subscale was used for the academic motivation and learning of students in higher education. It consists of 24 statements where 1 Totally disagree, 2 Strongly disagree, 3 Disagree, 4 Neither agree nor disagree, 5 Agree, 6 Strongly agree and 7 Totally agree (See Annex 1).

Statistical analysis

For data analysis, descriptive and inferential statistics were used for the hypothesis test: Pearson's Correlation; then they were processed; Subsequently, the frequencies and percentages were tabulated and found and presented in tables and graphs. The statistical analyzes were carried out with the SPSS (Statistical Package for Social Sciences) computer program in its version 24. For this, the Excel program was used, which allowed the results to be presented in a clear and objective manner.

Procedures

The evaluations were carried out as follows:

- 46 students were taken as a representative sample of the Faculty of Education.
- The investigation was carried out from 01 to 10-30-2022, where the survey was applied and the notes of the course taught were considered to contrast.
- 27 women and 19 men with an average age of 19 to 22 years corresponding to the first cycles participated.

- Obtained the data through the survey and notes, they were processed through basic and inferential statistics and tables were prepared for their interpretation and analysis.
- Finally, the Pearson Correlation hypothesis test was carried out to measure the relationship of both study variables by dimensions.

III. Results

If we observe the data corresponding to the Learning Motivation Subscale (SEMAP-01) (see table 1), the reliability results obtained in this subscale from a sample of university students with the coefficient Cronbach's Alpha is 0.701.

Table 1. Factors and Reliability Coefficients of the CEAP48 Scale, SEMAP-01 Subscale (Academic Motivation)

Factors	Ítems	Cronbach's Alpha
Deep Motivation (DM)	2, 5, 8, 14, 11, 20, 17	0.715
Performance Motivation (PM)	15, 3, 12, 18, 22, 13, 21, 23	0.735
Superficial Motivation (SM)	16, 10, 6, 1, 4, 24, 19, 9	0.653

Total alpha coefficient of the Scale: 0.701.

Interpretation

The first coefficient is moderately reliable and the second can be considered highly reliable or acceptable. If we observe the factorial dimensions of the SEMAP-01 Subscale, we verify that the Deep Motivation (DM) factor has an alpha coefficient of 0.715, the Performance Motivation (PM) factor is 0.735 and the Superficial Motivation (SM) has an alpha of 0.653. All these coefficients can be considered to be of moderate reliability and, therefore, acceptable (See Table 1).

Central tendency measures of the application in motivation and learning academic according to the students.

Table 2. Descriptive statistics by dimensions of the SEMAP subscale.

		Statistics		
		Deep Motivation	Performance Motivation	Superficial Motivation
N	Valid	46	46	46
	Missing	0	0	0
Mean		3,87	3,85	3,96
Std. Deviation		,718	,515	,631

Interpretation

Making a complementary analysis of the data obtained regarding the behavior of academic motivation in the students investigated, it was found that in the sample of respondents, as a trend, there is a predominance of deep or intrinsic motivation in the university context that is evaluated. Most of the respondents generally experience a greater degree of agreement in the items that make up said dimension. These considerations are contrasted by comparing the values of the means for each of the dimensions found. These results are made visible in Table 2, where it is precisely deep motivation that presents the highest values (M=3.96 and DT=0.631) followed by deep motivation (M=3.87 and DT=0.718) and performance motivation (M=3.85 and SD=0.515). Apparently, the superficial orientation towards learning that most of the investigated students present makes them express agreement in sentences or items such as studying in depth the topics that are interesting to them, when they study they contribute their own point of view or

knowledge, when those who study in depth know that they can apply what they learn in practice, or they prefer to study topics that are interesting to them, even if they are difficult. It is clear that metacognitive ingenuity is much greater than cognitive, that is, there is greater control, thinking and strategies that have improved over time in practice. In this way, the metacognitive knowledge acquired to guide the player in which strategies work best for a given situation strongly demonstrates his awareness of controlling thinking and creating strategies to capture a quick and effective solution for university students (Cavalcante et al., 2022, p.9).

Similar results have been obtained in different studies where interest in learning is more prevalent. Table 3. SEMAP deep motivation subscale.

		Deep Motivation			Cumulative percentage
		Frequency	Percent	Valid percent	
Valid	Low	1	2,2	2,2	2,2
	Medium	11	23,9	23,9	26,1
	High	28	60,9	60,9	87,0
	Very high	6	13,0	13,0	100,0
Total		46	100,0	100,0	

Interpretation

According to Table 3, it is perceived that 60.9% of the students consider themselves at a high point to reach deep motivation, while 23.9% consider that they are in a medium-deep stage, the 13% its depth is very high and the other 2.2% low. In the university students investigated, there is a tendency for deep or intrinsic motivation to predominate over superficial and performance motivation, although there are superficial motives to a lesser extent, linked to studying to pass, studying only the contents that are asked in the exams (Matos et al., 2019, p.13).

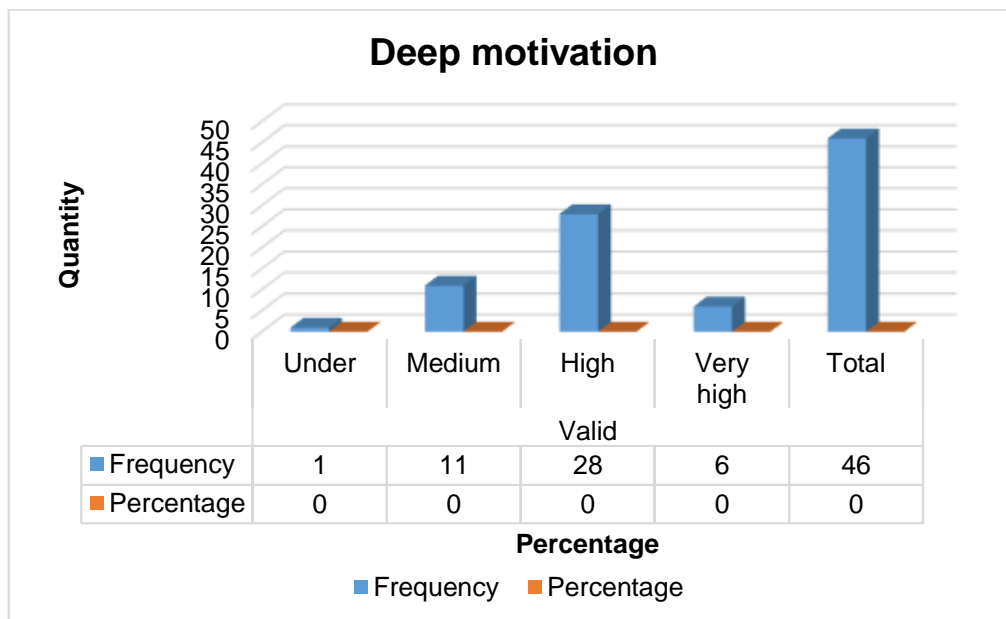


Figure 1. SEMAP deep motivation subscale

Table 4. SEMAP performance motivation subscale.

		Performance Motivation			Cumulative percentage
		Frequency	Percent	Valid percent	
Valid	Medium	10	21,7	21,7	21,7
	High	33	71,7	71,7	93,5
	Very high	3	6,5	6,5	100,0
Total		46	100,0	100,0	

Interpretation

According to table 4, it is perceived that 71.7% of the students consider themselves at a high point to reach performance motivation, while 21.7% consider that they are in a medium-deep stage, the 6.5% its yield is very high. It is important to leave an open edge that allows for the analysis of a larger sample of students from the Faculty of Education and more careers from the Technical University of Machala, in order to verify whether all of them show that students have an optimal level of communication habits. study and motivation for learning (Nieto and Chalaco, 2021, p.14).

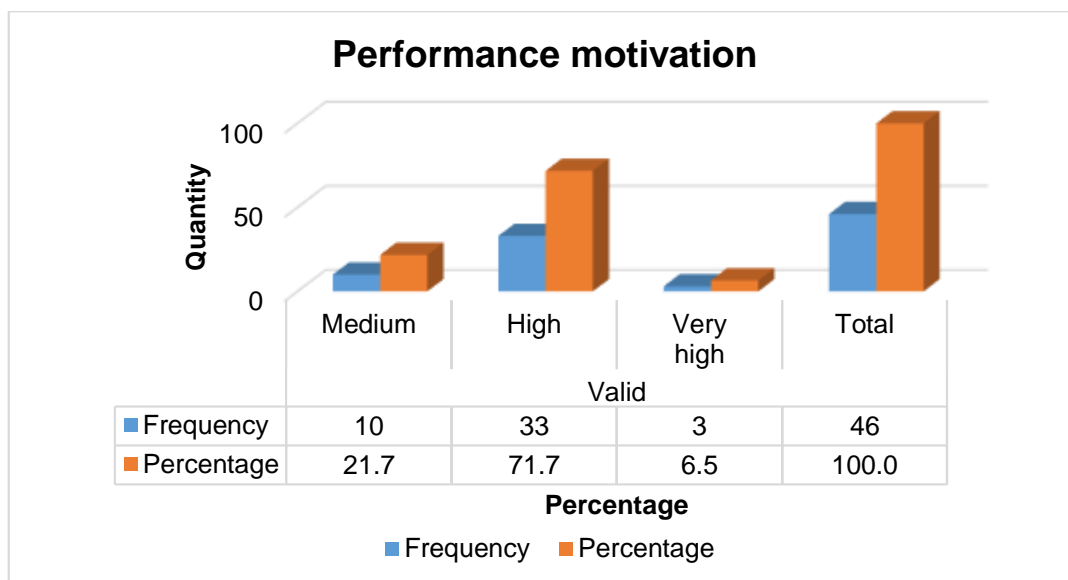


Figure 2. SEMAP performance motivation subscale

Table 5. Subscale of superficial motivation SEMAP

		Superficial Motivation			Cumulative percentage
		Frequency	Percent	Valid percent	
Valid	Medium	10	21,7	21,7	21,7
	High	28	60,9	60,9	82,6
	Very high	8	17,4	17,4	100,0
Total		46	100,0	100,0	

Interpretation

According to Table 5, it is perceived that 60.9% of the students consider themselves at a high point to reach superficial motivation, while 21.7% consider that they are in a medium to deep stage, the 17.4% its superficial is very high. In relation to the type of motivation that moves the first-year university students at PUCMM, with low performance, we will say, in accordance with the data obtained, that it is a Superficial Motivation (SEMAP-MS). This motivation does not direct towards the search for new knowledge or towards achievement. Rather, it produces a kind of demotivation that inhibits the efforts that the student must deploy to overcome the difficulties that usually arise during the learning process (Fernandez, 2009, p. 476).

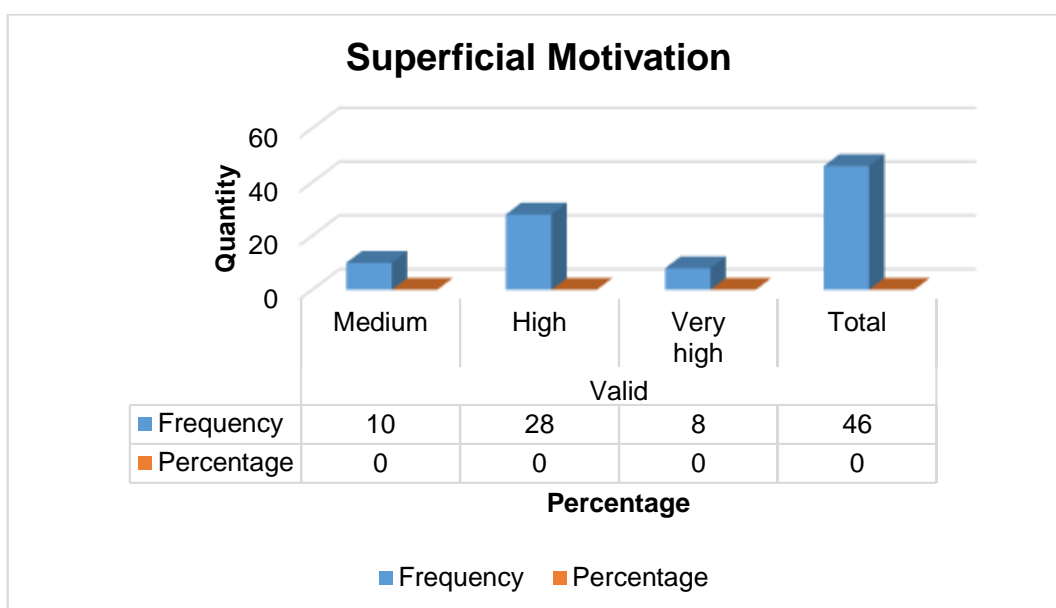


Figure.3. SEMAP Superficial Motivation Level

Table 5. Correlation between Motivation and Learning

		Correlations		
		Aptitude	Knowledge	Meta learning
Deep motivation	Pearson Correlation	1	,246	,281
	Sig. (2-tailed)		,100	,058
	N	46	46	46
Performance motivation	Pearson Correlation	,246	1	,321*
	Sig. (2-tailed)	,100		,030
	N	46	46	46
Superficial Motivation	Pearson Correlation	,281	,321*	1
	Sig. (2-tailed)	,058	,030	
	N	46	46	46

*. Correlation is significant at the 0,05 level (2-tailed).

Interpretation

The deep motivation shows a moderate correlation with the aptitudes of the students with 1%; It is related to learning and belonging goals with 0.281 and with knowledge with 0.246. The performance motivation is related to the aptitudes of the students with 0.246%; It is related to knowledge and belonging with 1% and with meta-learning with 0.321. Superficial motivation is related to the aptitudes of the students with 0.281%; it is related to meta-learning and belonging with 1% and with knowledge with 0.321. In addition to contrast how the p-value (sig. =0.000) is less than the level of significance (0.05), then we made the decision to reject the null hypothesis and accept the general hypothesis raised, according to the resignations. It is concluded that there is an adequate significant relationship between academic motivation and learning in Unasam students, as demonstrated by the results of the test contrast.

The results show a high correlation between the application of motivational and learning strategies and academic performance. Where university students achieved higher performance, they used these strategies to achieve their goal. In summary, the results indicate that students achieve their learning goals not only through the use of cognitive, metacognitive and volitional strategies, but also through the deployment of motivational strategies (Cardozo, 2008, pp. 20-21). It is evident how students who do quality volunteer work are those who are more motivated and obtain better grades, concluding that intrinsic motivation is a key element for their academic performance. (González et al., 2021, p.8). In the field of learning strategies, which are nothing more than those rules and procedures that allow students to make timely and appropriate decisions at any time in the learning process, reflects the importance that they have in the positive determination and in predicting academic performance. In PUCMM's first-year university students, the strategies form a nucleus of variables in which, in the first place, Comprehension Strategies (EST.COMP) stand out. The purpose of these comprehension strategies is to master and understand the learning content in depth and the more these purposes are achieved, the higher the academic performance of the students (Fernández, 2009, p. 474).

IV. Conclusions

- It was shown that the application of academic motivation and learning occupies 71.7% (33) at the highest level in the performance motivation dimension. Therefore, motivation improves in student learning; however, it is necessary for teachers to apply this didactic resource in their classes, since it is demonstrated in the results.
- It was determined that more than 50% of the respondents are above 3.96 in the Average, that is, they have a favorable attitude. On average, the subjects are located in superficial motivation. Likewise, 0.631 scale units deviate from the average. Therefore, the use of this resource benefits the student.
- Finally, it is concluded that there is an adequate significant relationship between academic motivation and the learning of university students, due to a moderate correlation.

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Annex 1. EMAP-01 Learning motivation subscale

Below are 24 statements. Place a mark in the box that represents your feelings. Being 1 Totally disagree, 2 Strongly disagree, 3 Disagree, 4 Neither agree nor disagree, 5 Agree, 6 Strongly agree and 7 Totally agree. The survey is anonymous so we appreciate you answering all the statements honestly.

Age: _____

Sex: M F

N°		1	2	3	4	5	6	7
1	I get easily discouraged when I get a low grade							
2	It satisfies me to study because I always discover something new							
3	I think it's always important to get high qualifications							
4	I recognize that I study to pass							
5	I like to learn new things to delve into them later							
6	It is very important to me that teachers point out exactly what we should do							
7	When I don't understand a subject it's because I don't study enough							
8	I study in depth the topics that are interesting to me							
9	I work hard in the studio because my family usually gives me gifts							
10	When it comes to taking exams, I'm afraid of failing							
11	I think studying helps you better understand life and society							
12	I like to compete to get the best qualifications							
13	I believe that studying facilitates a better job in the future							
14	When I study I contribute my own point of view or knowledge							
15	The important thing for me is to get good grades in all subjects							
16	When I do the exams I think I'm going to do worse than my classmates							
17	When I go deeper into the study, then I know that I can apply what I am learning in practice							
18	If I can, I will try to get better qualifications than most of my classmates							
19	What I want is to study only what they are going to ask me in the exams							
20	I prefer to study topics that are interesting to me, even if they are difficult							
21	When the qualifications come out I usually compare them with those of my classmates or my friends							
22	I think I'm a good student							
23	I have good qualities to study							
24	I consider myself a student of the lot							

¡Thank you for your collaboration!