Propósitos y Representaciones
Ene.– Jun. 2015, Vol. 3, N° 1: pp. 177-231.
http://dx.doi.org/10.20511/pyr2015.v3n1.71

ISSN 2307-7999
e-ISSN 2310-4635

ARTÍCULOS DE INVESTIGACIÓN

The classroom climate according to grant holders 18 (Becarios 18) and regular students from a private university in Lima

El clima de aula según becarios 18 y alumnos regulares de una universidad privada de Lima

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Received: 09-03-15

Approved: 20-05-15

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Citar Como:

Anaya, J., & León, F. (2015). The classroom climate according to grant holders 18 (Becarios 18) and regular students from a private university in Lima. *Propósitos y Representaciones, 3*(1), 177-231. doi: http://dx.doi.org/10.20511/pyr2015.v3n1.71

Notas

The authors acknowledge the suggestions of Mario Tueros, Denisse Manrique y Alberto Alegre.

Summary

The admission of poor students sponsored by the Beca 18 social program into Lima universities is a recent phenomenon that requires studies on their adjustment and academic performance. This research targeted Beca 18 students at USIL and compared their responses to a questionnaire on perceptions of classroom climate with those from regular students. Both were participating in the course on math analysis offered to engineering students. In the general context of positive perceptions of classroom climate, Beca 18 students slightly differed from regular students, showing more positive perceptions of professor's behavior in terms of creation of a working environment, class pace, interest in the student, and promotion of cooperation and group work. A greater difference was observed in regard of the avoidance of a climate of competition, which should be studied in greater depth. On the other hand, Beca 18 students complained more about the lack of solidarity, which can be explained by their adaptation to the more collectivistic culture observed in Peruvian provinces.

Keywords: Beca 18, university environment, classroom climate, motivation for studying

Resumen

La inserción de beneficiarios pobres del programa social Beca 18 en universidades limeñas es un fenómeno reciente que amerita estudios relativos a su adaptación y desempeño académico. En la presente investigación se analizaron las respuestas de becarios 18 en USIL a un cuestionario de percepciones del clima de aula, y se les comparó con las de alumnos regulares para establecer si había diferencias. Ambos participaban en el Curso de Análisis Matemático que se imparte a estudiantes de ingeniería. En el contexto general de climas de aula bastante positivos, los becarios se diferenciaron ligeramente de los alumnos regulares por una percepción más positiva del comportamiento del profesor en términos del ambiente de trabajo creado, el ritmo de la clase, el interés por el estudiante y el fomento de la cooperación y trabajo grupal. Mayor diferencia se observó respecto a la evitación de un clima de competición; esto debería investigarse a mayor profundidad. De otro lado, los becarios se quejaron más de la falta de ayuda por parte de otros alumnos, lo cual se explica por la mayor solidaridad existente en provincias, cuya población es más colectivista que la de Lima.

Palabras clave: Beca 18, ámbito universitario, clima de aula, motivación para el estudio.

Introduction

Beca 18 is one of many social programs held by the Government of Peru. It encourages the inclusion of young people from low-income backgrounds and it relies on good quality institutions so that they can start, stay and culminate a professional or technical training at a higher education center. The project was motivated by several aspirations: "fighting poverty", "social mobilization", "decentralization", "access and culmination of a quality higher education", "human capital training", "social justice in educational matters", "vigorous national productive model", "pride on multicultural diversity" and "being in accordance with the demands of a world that is increasingly becoming more competitive and globalized" (Pronabec, 2013, p. 7). The program Beca 18 not only takes into account the idea of providing low-income young people with better professional development opportunities, but also the aim of contributing to the development of their own regions (Pronabec, 2013, p.40). In order to achieve its goals, it summons students with a high grade point average among 300,000 people ranging from 16 to 22 years old, coming from public schools and from households living in poverty, and it selects those who stand out because of their motivation in school and intellectual abilities. Once included in higher education, it gives them material support and academic and psycho-pedagogical care. Beca 18 started functioning in 2012. The Universidad San Ignacio de Loyola (USIL) has welcomed 4 groups of grant holders so far (from the first semester of 2013 to the second semester of 2014). The Ministry of Economy and Finance (MEF) of Peru will be in charge of evaluating the impact of the program with the support of the Inter-American Development Bank (IADB) and the Latin American and Caribbean Demography Center (CELADE). As an incipient program, Beca 18 lacks of any information about the way the grant holders are adjusting to the exacting demands of the universities who welcomed them. The present investigation has explored their perceptions of classroom climate in comparison to regular USIL students.

Classroom Climate.

The climate generated in a university classroom is fundamental to achieve successful learning. This is shown in several studies which state that the classroom climate is the most important variable in learning. There is enough certainty in psychology books that the classroom climate significantly contributes to improve or deteriorate school learning. (UNESCO, 2002). Several researches show that the sum of all out-of-school factors, the materials, the human resources and the psychological factors is not as important as the emotional climate achieved in the classroom. The concept of "classroom climate" stems from Lewin's Force-Field Analysis (1978) which defined the "life space" as a space where behavior is a function of the person and their environment. Lewin included the idea of "psychological atmosphere" to refer to the reality of this field as a whole. The Expectancy-Value theories come from Tolman and Lewin's work. They proposed that behavior is led by positively valued objects and that it eludes negatively valued objects. According to the assumptions of this theory, individuals tend to take more responsibility for a task when they expect to perform it well and when it's important to them (Meece, Anderman & Anderman, 2006; Tollefson, 2000). The model presumes that this greater effort is the result of the hope of success and the value attributed to the reward. There will be no sacrifice from the student if the reward has little or no significance to them. In addition, if the students do not expect to successfully perform a certain task, they will not attempt to achieve it, even if the reward has some value to them (Good & Brophy, 1996). The concept of "classroom climate" is also related to that of "organizational climate", which is the meaning that people attribute to different aspects of their work (Schneider, Erhard & Macey, 2012). In terms of this perspective, classroom climate would be configured, on the one hand, in the interaction between the behavior of the teacher and the other students, and in the perception and behavior patterns brought by the students by coming into contact with the academic environment. For that reason, the main question of this research is if the beneficiaries of Beca 18,

coming from subcultures that are generally different to the one from Lima and from a disadvantaged socioeconomic status, perceive the classroom climate in the same way the regular USIL students do, considering that they usually come from Lima's modern culture and from homes that do not suffer the disadvantages of low socioeconomic strata.

One concept that relates to classroom climate is the "school culture" (Maehr & Midgley, 1991), connected to the value that the school gives to certain policies linked to academic goals. As the students interact with what they perceive and how they feel about their teachers, the general staff and the physical and psychological environment, the school culture contributes to configure the classroom climate (Sink & Spencer, 2005). The ideal environment is non violent and it has no disturbances to study, on one hand, and the presence of good friends, on the other.

Motivational Environment.

The motivational environment perceived by the students in the classroom contributes significantly to the classroom climate. Classroom motivation is crucial to learning, both for the students and the teachers. This motivational dynamic inside the classroom will make the difference between the student's success and failure (Vanderberghe, D'hertefelt & De Wever, 1993). Several authors state that a positive climate in the classroom implies several attributes, such as activities in the classroom, their organization, work pace, formulation of objectives, work procedures, teacher's preferences, the use of free time and other variables that influence in a determinant way on the academic behavior (Alonso, 1992). A good climate is given by good relations between the members of a university community, where cordiality, friendliness, confidence and solidarity among classmates are what matter. It is also said that encouraging work under these conditions is highly positive as enthusiasm, challenge, mutual respect and team work are generated (Arancibia, 1992). Researches focused on the class have examined how the teachers can create different objective systems by using different instructional, group and

evaluation strategies (Meece, Anderman & Anderman, 2006). A teacher can encourage learning by inviting students to perform attractive tasks that spark their curiosity and interest. A task is considered nice if it challenges all of the student's talents while allowing them to have a certain control of the challenge. Researches state that when a teacher gives more support to the students, they feel more comfortable, they ask for help and they ask more questions. The teacher's responsibility is to give stimuli to question, to teach how to ask questions and how to answer them, and also to reward or sanction when necessary (Ryan, Pintrich & Midgley, 2001). It is important as well not to compare the student's achievements with those of their classmates. In some cases, low academic achievement students strive to study more during the class, but the teacher's and the other student's behavior can be so demoralizing that they will ask no questions in case of doubt (Good & Brophy, 1996). The environment generated in the classroom influences both directly and indirectly on learning. The influence is direct when the student achieves a good academic performance, and it is indirect when they commit and sustain the effort (Linares et al., 2005).

Objective and Hypothesis of the Study.

The classroom climate and its components were analyzed in this research to characterize the prevailing situation in USIL classrooms according to the perception of two student groups: those coming from Beca 18 and the regular students of USIL. The study hypothesizes that there will be significant differences between the perceptions of both groups.

Method

The type of the study is correlational and comparative of two groups.

Participants.

The participants of the study were alumni of the Mathematical Analysis 1 class of the first term of 2014. They were asked if they wanted to take part in

a social research. It took place during class hours and the class coordinator recruited the volunteers. Answers were obtained from 63 grant holders and 86 regular students. Grant holders were 40% male and 60% female and regular students were 44% male and 56% female. The average age, respectively, were 18.13 and 18.62. That is, both groups were relatively equal in terms of gender and age.

Instrument of Data Collection.

The Motivational Climate in Class Questionnaire was developed by Alonso and García (1987) and adapted in Venezuela by Irureta (1995) and in Peru by Thorne, Centeno and Wetzell (2009). It is designed to evaluate the motivation generated by the teacher in class and it's easily applied (Appendix A). The application time is of twenty minutes approximately. The test considers five subjects: work environment, stressful class pace, interest on the student's learning, competition-cooperation climate, and team work. The work environment refers to the order inside the classroom (noise level and allowance of movement during class), the organization of activities and the specificity of learning goals by the professor. The stressful class pace refers to the anxiety generated by the speed to which the professor explains the subject, the time given to the tasks accomplishment and how long they stop on each subject. The interest in the student's learning takes the feeling of how every student is encouraged to progress without considering the progress of the others. The competition climate refers to aspects such as favoritism of the professor towards the more capable ones, to the frequent comparison between the students made by the teacher, and to the activities they organize to put in evidence who are better or worse. The scale of cooperation and team work considers the degree in which the professor encourages team work and help behavior in class. In Thorne et al. study (2009) the coefficients of internal consistency by area varied between .62 and .81.

Procedure of Data Collecting.

Data collecting was made with the support of the coordinator of the Mathematical Analysis 1 class, who gave the list of blocks and schedules and sent messages to the professors of the block where the questionnaire would be applied. Before the application there was a coordination with the professors and the respective authorization was asked, both from the teachers and the participants. The questionnaire was applied by groups in the respective classrooms of the participants. It was performed in one twenty minute session. The evaluator was introduced and explained the reason for the visit and the objective of the research and the questionnaire. It was guaranteed to the students that their participation would be anonymous and that there wouldn't be right or wrong answers. Students were told that the test would be invalid if more than one alternative was marked or if there were any unanswered questions. It was also stated that the participation was voluntary that anyone who didn't want to participate could leave.

Analytic Strategy.

It was not necessary to invalidate any tests. Each answer was given a Likert score that ranged from 0 to 3*: total disagreement* (0), *disagreement* (1), *agreement* (2), and *total agreement* (3). While grading, it had to be taken into account that, out of the 42 items, 18 are inversed (3, 4, 5, 8, 11, 12, 18, 24, 25, 27, 29, 30, 32, 35, 37, 38, 41, 42). In consequence, scores were inverted. According to converted scores, the higher the score, the better the classroom climate. Statistical analysis, other than Cronbach's Alpha and the Kolmogorov-Smirnov test, included de *t* test for independent samples and factor analysis.

Results

Descriptive Analysis.

Table 1 shows the five most positive items of the questionnaire prior to the transformation of the scores, and the five least positive items. The complete

list of the scores is in the table A1 of the Appendix ranged from high to low, together with the averages and standard deviations with which they came out from the analysis. It can be observed that on the top of the Likert scale (from 0 to 3) there were items such as "The professor frequently says that we should make an effort to achieve our goals", "The professor of this class treats us all equally, with no preferences", and "The professor is concerned about each and everyone's learning", while on the bottom there were items such as "While supervising the performance of the students, the professor dedicates more time to better students", "I think that it's hard to concentrate in this class because very frequently somebody gets up an goes from one place to another unnecessarily", and "In this class almost nobody pays attention because a lot of time is wasted and it's too noisy". This suggests that, in the perception of the whole group of students, the global classroom climate is clearly more positive than negative.

The total score of the classroom climate presented a normal distribution according to the Kolmogorov-Smirnov test (p = .607). The internal consistency coefficient for the sum of scores was α = .72 for non transformed scores. However, when they were inverted considering that some descriptions were negative as indicators of a good classroom climate (according to the ideology of the authors of the questionnaire), the coefficient rose to α =.87. Among the grant holders it reached .82 and, among regular students, .88.

Table 1.

Score average for the five most positive items of the classroom climate questionnaire and the five most negative ones, from high to low. Scores non transformed.

Item	Average
The professor frequently says that we should make an effort to achieve our goals	2.21
The professor of this class treats us all equally, with no preferences	2.19
The professor is concerned about each and everyone's learning	2.19
The professor constantly verifies through question that everybody has easily understood the class	2.17
The professor answers any question without considering if the student who asked it is a good or a bad student	2.15
The professor teaches without caring if we understand or not.	1.02
With this teacher the most important thing is to be among the best students and not how much we learn	1.00
In this class almost nobody pays attention because a lot of time is wasted and it's too noisy.	.98
I think that it's hard to concentrate in this class because very frequently somebody gets up an goes from one place to another unnecessarily	.93
While supervising the performance of the students, the professor dedicates more time to better students	.93

Factor Analysis.

In order to understand the internal structure of the questionnaire and to better interpret the results, two main components that, while rotated, respectively explain the 15.7% and the 14.2% of the variance, were extracted. The factorial loads for the items with higher loads in each factor are shown in table 2. Factor 1 seems to contain a motivational complex under the leadership of a professor who orientates and encourages cooperation in a way that a student can make efforts to accomplish the learning goals but without competing with their classmates. Factor 2 suggests a classroom climate dimension configured by a biased professor who supports the best students and gives them more attention against a professor who avoids encouraging competition between students in order not to undermine the learning of those who are less

academically advantaged. These results are interpreted with caution in this report, the factor analysis did not satisfy the assumption of sphericity (Chi-square = .861 in Test de Bartlett)

Table 2.

Factorial loads for items that are stronger in Factor 1and for those that are stronger in Factor 2. Transformed scores. A list of all the items and their factorial loads can be found in Table A2 in the appendix.

Items with higher load in Factor 1	Load		Items with higher load in Factor 2	Load	
	Factor 1	Factor 2		Factor 1	Factor 2
Cares about student's learning	.682	.330	Pays more attention to better students	.022	.690
Encourages cooperation among student.	633	.062	Only the best ones get any attention	.182	.678
Explains tasks' objectives	.622	.247	Gives more time to	.010	.666
Students make an effort to be better	-.600	-.053	the best students	.094.276	.632
			Hard to concentrate		.582
Allows students to help each other	.591	.167	Being the best is what matters		

Hypothesis Contrast.

Table 3 compares the average scores of all grant holders and regular students after their transformation, both for the group as a whole and for the male and female subgroups. It can be noted that none of the differences is statistically significant. There were no significant differences in the comparisons inside each gender either.

Table 3.

Average classroom climate comparing grant holders to regular students for the entire group, females and males.

Group	Average		Variances	*t*	*p*
	Grant holders	Regulars			
Total (N = 149)	78.51 (N = 63)	76.77 (N = 86)	Unequal	.80	.42
Females (N = 63)	82.80 (N = 25)	80.11 (N = 38)	Equal	.75	.46
Males (N = 86)	75.68 (N = 38)	74.13 (N = 48)	Unequal	.59	.56

Note. Tests are bilateral (two rows).

The questionnaire considered several scales. They were less reliable than the total scale due to the very small number of items: Work environment, 6 items, α = .67; Class pace, 8 items, α = .58; Interest in student, 8 items, α = .69; Competition climate, 8 items, α = .77; and Cooperation and team work, 5 items, α = .44. Do not add 42 items because only reliable for each scale is considered. The correlations between scales were somewhat stronger among grant holders than among regular students, although all of them are positive (table 4). Table 5 presents the results of score comparisons by scales between grant holders and regular students. The only difference that approached statistical significance was the class competition climate, to which the grant holders responded with more positive perceptions (according to the idea that an environment without competition is better). It is to be observed that this variable corresponds to Factor 2, previously identified.

Table 4.
Pearson correlation between classroom climate scales, according to the student's status.

Scales	Class pace	Interest in the students	(Lack of) competitive environment	Cooperation and team work
Beca 18 grant holders (N = 63)				
Work environment	.42***	.36**	.38**	.34**
Class pace		.43***	.51***	.49***
Interest in the students			.31*	.27*
(Lack of) competitive environment				..45***
Regular students (N = 86)				
Work environment	.54***	.50***	.63***	.37***
Class pace		.62***	.46***	.53***
Interest in students			.49***	.60***
(Lack of) competitive environment				.42***

Note. Tests are bilateral (two rows).

Table 5.
Classroom climate average comparing grant holders to regular students, according to the questionnaire scale, controled by gender.

Scale	Average		Variances	*t*	*p*
	Grant holders	Regulars			
Work environment	11.59	11.72	Equal	-.26	.79
Class pace	13.95	13.63	Equal	.58	.56
Interst in student	16.29	15.94	Unequal	.74	.46
(Lack of) competitive climate	16.62	15.24	Equal	1.94	.06
Cooperation and team work	9.13	9.10	Equal	.06	.95

Nota. Tests are bilateral (two rows).

An ítem-by-item comparison was also made. Its results are shown on table 6. Five of the forty- two items presented significant differences. The variances were unequal probably due to lesser consistency of the items compared to the scales. In all cases, the perception of classroom climate is better among grand holders than among regular USIL students, except regarding the help that they receive from their classmates.

Table 6.

Clasroom climate average comparing grant holders to regular students, according to the most discriminating items of the questionnaire.

Scale	Average		Variances	*t*	*p*
	Grant holders	Regulars			
The best tones get the	2.08	1.67	Unequal	143.96	.02
attention*	1.97	1.70	Unequal	153.54	.04
Fun and interesting tasks	1.56	1.99	Unequal	114.54	.01
No one helps*	2.35	2.10	Unequal	143.23	.04
Worries about students	2.08	1.80	Unequal	146.18	.02
learning					
Encourages cooperation					

* Negative items have converted scores (“No”). All tests are bilateral (two rows).

Discussion

The current research is an analysis of the classroom climate and its components to characterize the prevailing situation in classrooms based on the perception of two different groups of students: those who come from Beca 18 and the regular students from USIL. The study’s hypothesis was that there would be significant differences between both group’s perceptions. As stated below, the findings have allowed to characterize de classroom climate in USIL and to detect some significant differences between grant holders and regular students.

The comparison between grant holders and regular USIL students takes place in Mathematical Analysis I class, which classroom climate is perceived quite positively by the participants (table 1). The factor analysis revealed two fundamental dimensions of classroom climate, one focusing on the relationship with the professor and the other focusing on the relationship with the other students (table 2). In the first one, grant holders had more positive perceptions than regular students (table 6), which suggests that they give more value to the teacher's contribution. This is probably understandable considering that grant holders have a poor socioeconomic background, which means they have academic disadvantages. However, their social context allowed them to develop personal ambitions that made the become better students, leading to a better appreciation of the teaching quality in a university emphasizing discipline, professor's technical knowledge and educating through competition. It seems only natural that the regular alumni of USIL, being more heterogeneous in terms of performance and ambitions, do not show such positive perceptions in average as the grant holders. It is probable that the best regular students do perceive the professor's classroom behavior as positively as grant holders do, but this is surely not the case for average or deficient students.

The second aspect, where most of the items referred to the way the professor treated the students based on their academic performance, caused a greater score difference between grant holders and regular students (table 5). Grand holders perceived to a greater extend the professor as a promoter of integration, as they did not show any favoritism towards the better students and did not compare the student's good and bad performances. This result is not easy to interpret. On one hand, based on the data collection instrument philosophy (Alonso & García, 1987), which states that competition is detrimental to classroom climate, it could be concluded that perceiving the professor as a promoter of integration is another manifestation of the grant holder's general positive perception compared to the regular students.

However, on the other hand, one might speculate that, as outstanding students during high school, they were used to being praised and to feel their teacher's preference which, compared to the neutral behavior from professor towards them, could be a shocking difference in their new environment. This issue calls for further and more precise research.

There is another aspect of the relationship with other students that is not mediated by the professor. The "no one helps you" item registered a higher answer ratio on the part of grant holders in comparison to regular students. This could be due to the collectivistic societies they come from, where cooperation prevails: they are more used to receiving help than the regular students, who come from an individualistic culture (León, 1994). But the origin of the perception of not receiving any help could be a sense of indifference or rejection from most regular students towards them. Future research should study this perception in a deeper manner. Perhaps grant holders help each other, but they interpreted the item's text as referred to most students.

Another research need derives from grant holder and regular student's specialization: the Mathematical Analysis I class is taken only by engineering students. It would also be convenient to widen the study to the alumni of other faculties and universities. Grant holders in this study may feel more or less different physically or culturally to most regular students in comparison to other universities.

In summary, this thesis found a classroom climate generally perceived as positive and with few differences between grant holders and regular students. What is left to establish is if other conceptual approaches of classroom climate would have similar results, especially concerning the competition versus the cooperation in the classroom.

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Appendix A

Classroom Climate Questionnaire (Peruvian Version)

Mariela Centeno and Cecilia Thorne

Name: …… Age: ……. Gender: M F
School name: ……... Date: …/…/…

Instructions

This questionnaire presents a series of statements concerning how you perceive your class environment, what you think your classmates and professors value, and how they usually work. Answer the questions taking into account what happens in the class you are asked about. In order to answer the questions, you must choose and mark one of the alternatives, considering the meaning of each number:

0 Total disagreement	1 Disagreement	2 Agreement	3 Total Agreement

For example, if the question is about the math class and you want to say that you completely agree with one of the statements, you could answer like this:

0	1	2	3

Remember that there are no right or wrong answers, just answer spontaneously to all the situations. If you have any question raise your hand. The objective of this test is for you to help us get to know you better by telling us how you perceive your class.

Be honest in your answers.

Don't leave any question unanswered.

Thanks for your cooperation.

You may start.

1) The professor constantly verifies through questions that everybody has easily understood the class	0	1	2	3
2) In this class it's easy to listen to the teacher or to study because rarely any classmate interrupts.	0	1	2	3
3) Only the best students receive the professor's attention.	0	1	2	3
4) When we must perform a task and /or work in class, the professor gives us a very Little time to do it.	0	1	2	3
5) The professor answers more questions coming from better students than from anybody else.	0	1	2	3
6) The professor cares about teaching us how to use what we learn in this class in our daily life.	0	1	2	3
7) In this class we rarely feel tired because of the great amount of homework we must do.	0	1	2	3
8) Many times in this class the professor doesn't explain the subject because there are students talking or being noisy.	0	1	2	3
9) In this class we rarely feel pressured because we have to do work quickly.	0	1	2	3
10) The professor makes tasks or work funny and interesting.	0	1	2	3
11) The professor explains the subject too quickly.	0	1	2	3
12) I think that it's hard to concentrate in this class because very frequently somebody gets up and goes from one place to another unnecessarily.	0	1	2	3
13) In this class the professor makes us feel their interest in our understanding of the subject they are teaching.	0	1	2	3
14) In this class, students help each other.	0	1	2	3
15) When the professor gives us homework, they explain what is its objective.	0	1	2	3
16) The professor rarely makes comparisons between students.	0	1	2	3
17) The professor cares about telling us how we can improve our work.	0	1	2	3
18) In this class students feel worried because they give us too much homework and not enough time to do it.	0	1	2	3
19) The professor individually congratulates us when we get a better grade than before.	0	1	2	3
20) The professor in this class treats us equally, with no preferences.	0	1	2	3
21) In this class, we have almost always time to accomplish all the tasks and/or activities.	0	1	2	3
22) The professor frequently says that we should make an effort to achieve our goals.	0	1	2	3
23) In this class it's a pleasure to study because we always know what we have to do, there's nobody bothering us and time is rarely wasted.	0	1	2	3
24) When giving back our tests, the professor usually congratulates the student who got the best grade in front of the class.	0	1	2	3
25) In this class everyone minds their own business and nobody helps others.	0	1	2	3
26) The professor speaks slowly so we all understand what they say.	0	1	2	3
27) In this class most of my classmates works hard so their work will be better than everybody else's.	0	1	2	3

28) During class we rarely leave our seats, and when we do it, it's justified.	0	1	2	3
29) In this class, we frequently do not understand how to do our work and/or activities.	0	1	2	3
30) In this class almost no one pays attention because a lot of time is wasted and it's too noisy.	0	1	2	3
31) When the professor gives us an exercise in class, he gives us enough time to do it.	0	1	2	3
32) The professor teaches without caring if we understand or not.	0	1	2	3
33) Very frequently our professor encourages cooperation between classmates more than competition.	0	1	2	3
34) The professor cares about everyone's learning.	0	1	2	3
35) In this class everybody wants to be the best and we work hard to accomplish it.	0	1	2	3
36) Our professor encourages cooperation between us, so that if somebody doesn't understand, there will always be a classmate willing to help.	0	1	2	3
37) In this class everyone must solve their own problems because nobody will help.	0	1	2	3
38) With this professor, we frequently compete because that way we can see who's the best.	0	1	2	3
39) The professor answers any question without considering if the student who asked it is a good or a bad student.	0	1	2	3
40) Our professor usually encourages team work and states that we can help each other and learn from our classmates.	0	1	2	3
41) With this teacher the most important thing is to be among the best students and not how much we learn.	0	1	2	3
42) While supervising the performance of the students, the professor dedicates more time to better students.	0	1	2	3

Table A1.

List of items and their averages and standard deviations (SD). Scores non transformed.

Item	Averag	SD
The professor frequently says that we should make an effort to achieve our goals.	2.21	.788
The professor of this class treats us all equally, with no preferences.	2.19	.800
The professor cares about each and everyone's learning.	2.19	.783
The professor constantly verifies through questions that everybody has easily understood the class.	2.17	.595
The professor answers any question without considering if the student who asked it is a good or a bad student.	2.15	.831
The professor cares about telling us how we can improve our work.	2.13	.753
The professor cares about teaching us how to use what we learn in this class in our daily life.	2.01	.803
The professor rarely makes comparisons between students.	2.01	.855
The professor speaks slowly so we all understand what they say.	2.01	.855
When the professor gives us homework, they explain what is its objective.	1.96	.866
In this class most of my classmates work hard so their work will be better than everybody else's.	1.94	.716
In this class it's easy to listen to the teacher or to study because rarely any classmate interrupts.	1.93	.724
Very frequently our professor encourages cooperation between classmates more than competition.	1.93	.720
During class we rarely leave our seats, and when we do it, it's justified.	1.92	.871
Our professor encourages cooperation between us, so that if somebody doesn't understand, there will always be a classmate willing to help.	1.91	.772
In this class it's a pleasure to study because we always know what we have to do, there's nobody bothering us and time is rarely wasted.	1.91	.777
Our professor usually encourages team work and states that we can help each other and learn from our classmates.	1.83	.766
The professor frequently says that we should make an effort to achieve our goals.	1.82	.788
When the professor gives us an exercise in class, he gives us enough time to do it.	1.82	.742
The professor makes tasks or work funny and interesting.	1.81	.798
In this class, students help each other.	1.76	.748

Item	Average	SD
The professor individually congratulates us when we get a better grade than before.	1.76	.849
In this class we rarely feel tired because of the great amount of homework we must do.	1.67	.879
In this class the professor makes us feel their interest in our understanding of the subject's they are teaching.	1.51	1.035
The professor explains the subject too quickly.	1.50	.903
In this class we rarely feel pressured because we have to do work quickly	1.48	.817
With this professor, we frequently compete because that way we can see who's the best.	1.36	.846
In this class students feel worried because they give us too much homework and not enough time to do it.	1.33	.879
When giving back our tests, the professor usually congratulates the student who got the best grade in front of the class.	1.27	.904
When we must perform a task and /or work in class, the professor gives us very little time to do it.	1.23	.886
Many times in this class the professor doesn't explain the subject because there are students talking or being noisy.	1.22	.874
In this class everyone minds their own business and nobody helps others.	1.21	.846
In this class, we frequently do not understand how to do our work and/ or activities.	1.20	.811
In this class everyone must solve their own problems because nobody will help.	1.19	.800
Only the best students receive the professor's attention.	1.17	1.064
In this class everybody wants to be the best and we work hard to accomplish it.	1.13	.692
The professor answers more questions coming from better students than from anybody else.	1.13	1.019
The professor teaches without caring if we understand or not.	1.02	.893
With this teacher the most important thing is to be among the best students and not how much we learn.	1.00	.760
In this class almost no one pays attention because a lot of time is wasted and it's too noisy.	.98	.908
I think that it's hard to concentrate in this class because very frequently somebody gets up and goes from one place to another unnecessarily.	.93	.844
While supervising the performance of the students, the professor dedicates more time to better students.	.93	.910

Table A2.

List of items and their factorial loads in Factors 1 and 2.

Item	Factor 1	Factor 2
The professor frequently says that we should make an effort to achieve our goals.	.560	-0.95
The professor of this class treats us all equally, with no preferences.	.691	.042
The professor cares about each and everyone's learning.	.729	.783
The professor constantly verifies through questions that everybody has easily understood the class	.506	.021
The professor answers any question without considering if the student who asked it is a good or a bad student.	.775	.019
The professor cares about telling us how we can improve our work.	.736	.059
The professor cares about teaching us how to use what we learn in this class in aour daily life.	.296	-.405
The professor rarely makes comparisons between students.	.281	.082
The professor speaks slowly so we all understand what they say.	.644	-.073
When the professor gives us homework, they explain what is its objective.	.630	-.228
In this class most of my classmates works hard so their work will be better than everybody else's.	-.218	.248
In this class it's easy to listen to the teacher or to study because rarely any classmate interrupts.	.471	.081
Very frequently our professor encourages cooperation between classmates more than competition.	.413	-.294
During class we rarely leave our seats, and when we do it, it's justified.	.274	-.130
Our professor encourages cooperation between us, so that if somebody doesn't understand, there will always be a classmate willing to help.	.514	-.375
In this class it's a pleasure to study because we always know what we have to do, there's nobody bothering us and time is rarely wasted.	.516	-.190
Our professor usually encourages team work and states that we can help each other and learn from our classmates.	.552	-.268
The professor frequently says that we should make an effort to achieve our goals.	.560	-095
When the professor gives us an exercise in class, he gives us enough time to do it.	500	-018
The professor makes tasks or work funny and interesting.	509	-.295
In this class, students help each other.	1.31	2.28
The professor individually congratulates us when we get a better grade than before.	.306	-.496

Item	Factor 1	Factor 2
In this class we rarely feel tired because of the great amount of homework we must do.	.371	-.273
In this class the professor makes us feel their interest in our understanding of the subject's they are teaching.	-.070	-.278
The professor explains the subject too quickly.	.511	.311
In this class we rarely feel pressured because we have to do work quickly	.214	-.315
With this professor, we frequently compete because that way we can see who's the best.	.077	.491
In this class students feel worried because they give us too much homework and not enough time to do it.	.294	.252
When giving back our tests, the professor usually congratulates the student who got the best grade in front of the class.	-.091	.442
When we must perform a task and /or work in class, the professor gives us very little time to do it.	.131	.228
Many times in this class the professor doesn't explain the subject because there are students talking or being noisy.	.403	.286
In this class everyone minds their own business and nobody helps others.	.364	.136
In this class, we frequently do not understand how to do our work and/ or activities.	.257	.411
In this class everyone must solve their own problems because nobody will help.	.303	.215
Only the best students receive the professor's attention.	.587	.386
In this class everybody wants to be the best and we work hard to accomplish it.	-.484	.358
The professor answers more questions coming from better students than from anybody else.	.610	.382
The professor teaches without caring if we understand or not.	.587	.218
With this teacher the most important thing is to be among the best students and not how much we learn.	.180	.619
In this class almost no one pays attention because a lot of time is wasted and it's too noisy.	.500	.240
I think that it's hard to concentrate in this class because very frequently somebody gets up and goes from one place to another unnecessarily.	.490	.410
While supervising the performance of the students, the professor dedicates more time to better students.	.435	.505