The Teacher Behaviors Inventory: Internal Structure, Reliability, and Criterion Relations with Boredom, Enjoyment, Task Value, Self-Efficacy and Attention

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Abstract

The assessment of the psychometric properties of Teacher Behaviors Inventory (Murray, 1983) was conducted to a sample of university students (N = 772) from Argentina. Evidence was provided of the instrument's internal structure applying exploratory factor analysis. Internal consistency was assessed by Cronbach α's coefficient. Evidence for the validity test-criterion through bivariate correlations and multiple regressions with the variables boredom, enjoyment, task value, self-efficacy and attention was provided. A final version of the instrument was demonstrated, it consists of 36 items, divided into six factors. The reliability of the instrument presented satisfactory results for all scales (α = .65 and between α = .84). The factor illustration / interaction has a higher predictive value for the criterion variables, the remaining factors had significantly lower results than expected and do not coincide in all cases with the results of the bivariate correlations. Its psychometric properties show acceptable levels of reliability and internal structure, which means that measurements of inventory in the local environment are valid and reliable for assessing teachers' behaviors. In addition, significant data on how teachers' behaviors in the classroom influence students' emotions (boredom and enjoyment), task value, self-efficacy and care were provided.

Key words: Teacher behavior, psychometric properties, achievement emotion, task value, self-efficacy, attention

Introduction

The specialized literature highlights the role of instructional teaching quality on motivation, cognitive processes, emotions and student's performance (Linnenbrink-Garcia, Patall, & Pekrun, 2016). Instructional teaching quality might be defined as the teacher's behavior in the classroom, which facilitates learning and promotes an optimum affective, motivational, behavioral and cognitive student's development (Sánchez Rosas & Esquivel, under review). The instructional teaching quality is one of the main modifiable factors that influences the student's achievement (Hattie, 2009), so identifying its role in the development of these processes it's a primary goal in order to improve teacher's education and student's learning (Praetorius, Lenske, & Helmke, 2012).

The Teacher Behaviors Inventory (TBI, Murray, 1983) it's a suitable instrument for measuring teaching quality and has certain advantages over other instruments. It measures low-inference behaviors, which helps to clearly distinguish the effective behaviors of those who are not. Students are the evaluators of such behaviors, providing reliable data. There have been experimental studies with this instrument supporting its validity and reliability for measuring instructional teaching quality. Through its results improvements in the performance of teachers in the classroom can be implemented. In this study, the psychometric studies applied to the TBI guaranteeing counting with an useful tool to investigate the teaching quality teaching are performed.

Instructional teaching quality assessment instruments

Cook (1989) and Marsh (1987) indicate that the first scale designed for teacher assessment by its students was the Purdue Rating Scale of Instruction Remmers, which was published in 1927. From this moment appeared a lot of other instruments. Between them, it can be mentioned the Teaching Evaluation Record (Beecher, 1956), The Principles of Adult Learning Scale (Conti, 1979), the Teacher Performance Assessment Instrument (Capie,

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Anderson, Johnson, & Ellett, 1980), the Multidimensional students' evaluations of teaching effectiveness: A profile analysis (Marsh & Bailey, 1993), among other more recent scales (Goetz, Lüdtke, Nett, Keller, & Lipnevich, 2013; Kunter & Baumert, 2006; Leung, Lue, & Lee, 2003; López-Barajas & Ruiz Carrascosa, 2005; Pratt, Collins, & Selinger, 2001; Wagner, Göllner, Hellmke, Trautwein, & Lüdtke, 2013).

High inference vs low inference teachers' behavior

The characteristics of teachers' effectiveness generally were studied from two perspectives. These variants at an instructional level in higher education have been called: High-inference behaviors (Feldman, 1976; Marsh, 1984) and low-inference behaviors (Rosenshine & Furst, 1971).

High-inference behaviors reflect global abstract features as *Explains clearly* or *Has a good relationship with their students*. Low-inference behaviors reflect more specific and concrete teaching behaviors as *Gives several examples of each concept, Names each student by name* (Murray, 1999). In general, the instruments which took as a criteria high inference behavior are more than the ones that took the low inference ones. Although knowledge of both characteristics is necessary the assessment of low inference behaviors presents certain advantages. First, low inference behaviors are relatively easy to manipulate or register for research, and researchers are more likely to use consistent operational definitions of teaching when based on specific and concrete behavior. Second, low inference behaviors present most useful at giving feedback to teachers on their performance. For example, if a teacher receives a negative evaluation regarding its performance and is about an overall assessment and not for specific behaviors he will be at the crossroads of not knowing what is failing in his performance in the classroom (Murray, 1983).

Teacher Behaviors Inventory

The TBI measures low inference behaviors of teachers that would be related to effective teaching and student learning. There are different versions of the TBI with more or fewer items. Factor analysis of the different versions and different research studies showed different factor structures (Erdle & Murray, 1986; Murray, 1985, 1997). It has also been adapted in different countries; the most recent version is on Philippines' students population (Murray, personal communication). Although through the studies, the same factorial structure hasn't always been found, eight to ten factors were usually identified. Clarity, Enthusiasm, Interaction, Organization and Speech are the factors found in most studies.

The most commonly used of the TBI version is the first developed by Murray (1983) which consists of 60 items, on which an exploratory factor analysis (principal axis method, varimax rotation, factors with eigenvalues > 2.00, 69% of the variance explained, alphas from .77 to .96) was applied. Factor analysis obtained the following eight factors: Clarity, Enthusiasm, Interaction, Organization, Pace, Disclosure, Speech, Rapport. These dimensions were identified by methods used in the development of scales (factor analysis) and analysis of the predictive validity of the scales to explain various results related to student (Murray, 1997). Each category is comprised of several items that are answered in a Likert scale of five points (*almost never observed - almost always observed*) to indicate the frequency of classroom behavior.

Instructional teaching quality, emotions, motivation and attention

Behaviors or dimensions of instructional teaching quality have influence on emotions in the academic context, while they can influence on task value, self-efficacy and levels of

attention, among many other variables in the academic fields (Sánchez Rosas & Esquivel, under review).

On one hand, Instructional behaviors (Goetz et al., 2013; Lohrmann, 2008) can act as precursors or antecedents of boredom (Daschmann, Goetz, & Stupnisky, 2011, 2014). In general, the teacher's monotony of teaching is the main cause of boredom (Bartsch & Cobern, 2003; Hill & Perkins, 1985; Robinson, 1975). In addition, different dimensions of instructional teaching quality were reported as factors that reduce boredom in class (Daschmann et al., 2011; Goetz, 2004; Goetz et al., 2013; Sánchez Rosas & Esquivel, under review). On the other hand, teacher's enthusiasm (Babab, 2007) and the perceived teacher's behavior (Sánchez Rosas, Takaya, & Molinari, 2016) relate to the emotions of students, such as enjoyment (Frenzel, Goetz, Lüdtke, Pekrun, & Sutton, 2009; Hatfield, Cacioppo, & Rapson, 1994; Mottet & Beebe, 2002). On one hand, the enthusiasm that a teacher will dedicate to a subject can arouse the students' perceived task value (Pintrich, Smith, Garcia, & McKeachie, 1993), as they may consider it relevant as learning academic material or to their daily lives (Hulleman, Godes, Hendricks, & Harackiewicz, 2010; Hulleman & Harackiewicz, 2009; Lee Johnson & Sinatra, 2013). On the other hand, the way the teacher presents a task (for example, difficult activities or negative feedback) can influence the confidence to do it (namely self-efficacy, Bandura, 1997). A series of research support the presumed relationships between instructional teaching quality, task value and self-efficacy (Ahmed, Minnaert, Van der Werf, & Kyuperet, 2010; Assor, Kaplan, & Roth, 2002; Federici & Skaalvik, 2014; Grolnick, Ryan, & Deci, 1991; Smart, 2014; Velez & Cano, 2012).

It has been shown that expressive behavior (Murray, 1991; Murray & Lawrence, 1980), monotony (Brigham, Scruggs & Mastropieri, 1992), pace (Goetz et al, 2013.), among other teacher behaviors (Sánchez Rosas, Takaya, & Molinari, in press), affect attention in class. Thus, if the teacher performs behaviors as speaking expressively, moves while dictating the class, tells jokes or using humor, makes eye contact with students, exposes at an appropriate pace, it is likely that he will attract the attention of their students.

Here the results of different psychometric studies applied to Teacher Behaviors Inventory (Murray, 1983) are reported: internal structure, reliability and validity test-criterion with boredom, enjoyment, task value, attention and self-efficacy.

Method

Participants

College students participated (N = 772, women = 76%, men = 24%), aged between 18 and 74 years (M = 22.94, SD = 6.13), from different careers (Psychology, Law, Architecture, Public accountant, Faculty in Foreign Languages, Bioimages, Dentistry, Chemistry, Archival, Civil Engineering, Industrial Engineering, among others) of the Córdoba National University, Argentina. Participants were selected through a non-probabilistic accidental sampling rate.

Measures

Instructional teaching quality. An adapted TBI (Murray, 1983) version was used to measure teacher's behavior in class.

Boredom and Enjoyment in Class. Two scales from the Achievement Emotions Questionnaire-Argentine were used (Sánchez Rosas, 2015). The boredom in class scale comprises eleven items (e.g., *The class is so boring that I feel like leaving*, α = .90) and the enjoyment in class scale, ten items (e.g., *I enjoy attending this class*, α =.87). These scales

measure the frequency of this kind of emotions in a Likert scale which ranges from (1) *Never* to (5) *Always*.

Task Value. A scale that assesses the perceived interest, importance and usefulness of materials and learning content was used (Pintrich et al., 1993). It consists of six items (e.g., *The material used in this area is useful for my learning*) and presented adequate internal consistency (α = .95). The items are answered using a Likert scale to indicate the item's agreement degree from (1) *Strongly disagree* to (5) *Strongly agree*.

Academic self-efficacy. A scale that assesses students' beliefs about their ability to perform well in the subjects was used (Pintrich et al., 1993). It consists of eight items (e.g., *I am able to understand the most difficult concepts presented by the teacher in the class of this subject*) and demonstrated adequate internal consistency (α = .95). The items are answered using a Likert scale, expressing the safety level of (1) *Cannot do it* (10) *Totally safe to do so*.

Attention in class. To measure attention in class it was used an one dimensional designed scale that assesses the ability to concentrate, irrelevant thoughts and attention. It has seven items with four written in reverse (e.g., *I lose concentration*) and three directly (e.g., *I follow closely what is being explained*). The items are answered based on a Likert scale from (1) *Never* to (5) *Always*. When performing the analysis, the first four items were re-codified. The scale's one dimensionality was assessed using exploratory factor analysis and the internal consistency and the results were acceptable (KMO = .90; 67% of explained variance and factor loadings > .76; α = .95).

The total scores of each scale were calculated by adding the values provided to each item and then divided by the number of items in the corresponding scale. In this way, the average values per variable were obtained, they go from 1 to 5 for all scales, in exception of self-efficacy that adopts values from 1 to 10.

Procedure

A direct translation of the items from English, the original language to spoken Spanish by the targeted population of this instrument, was made. In order to assess the equivalence between the two versions the instrument was applied, both in its English and Spanish versions, to a bilingual sample. Subsequently, Spearman correlations and T-test for paired samples were performed. The results of these analyzes support the conclusion that the original version and the translated are equivalent.

Full protocols were personally administered during school hours, explaining to participants the purposes of the study and that their responses would be anonymous and used only for research purposes. All agreed to participate voluntarily when filling protocols. Data were analyzed through the software IBM SPSS Amos 19.

Data analysis

To carry out the analysis of internal structure we chose to use the same method as the author of the TBI in its original version (Principal Axis, Promax rotation) which analyzes the variance that variables have in common or covariance, excluding the specific and error variance. To evaluate the feasibility of conducting exploratory factor analysis, Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and and Bartlett's test of sphericity were considered. Additionally, to determine the number of factors to extract, the rule eigenvalues and the scree plot were considered. In the analysis were considered adequate factor

correlations of .30 or higher and not shared by correlations of that variable with another factor (> .10).

Internal consistency through items covariance method was evaluated. This consists of analyzing whether the items represent sources of error when estimating through Cronbach's alpha coefficient to what extent they measure the same variable.

Finally, evidence of test-criterion validity was obtained from the bivariate correlation (Pearson coefficient) of the scales of the TBI with boredom, enjoyment, task value, self-efficacy and attention. In addition, a stepwise regression procedure was performed to analyze the predictive ability of teachers behaviors, controlling the simultaneous effect of the same on the criterion variables.

Results

Initially, six items with high values (> 2.0) of skewness and kurtosis, plus a high number of outlier cases on those items (see Table 1) were identified. This may be because most students give the same very low or very high end value to these items. That is, teachers never or always do perform the behavior in question, so that those items would have little discriminative value in practical terms. Consequently, it was decided to withdraw these six items and to carry out the exploratory factor analysis with the remaining fifty-four items.

Table 1. *TBI items with high values of skewness and kurtosis*

Items	Skewness	Kurtosis
Avoids visual contact with students	2.43	6.71
Has habits that distract	2.03	4.50
Criticize the students when they make mistakes	2.23	4.71
Stutters, whispers or mumbles or with an unclear pronunciation	3.10	10.17
Speaks to an appropriate volume	-1.59	2.23
Speaks clearly	-1.73	3.21

Internal structure: Exploratory factor analysis

Consecutive factor estimatings were made, specifying extraction of six factors, which evidenced items that showed low loadings (thirteen items < .30) or double (five items with differences in loadings > .10), which were eliminated (fourteen items) .

The final estimating (KMO = .89, χ^2 = 10035; gl = 630; p < .001) showed a structure with six related factors that explained 51% of the variance and in which all 36 items loaded clearly in corresponding factor (Table 2).

Factor 1 (Exemplifying-Interaction) was composed of eleven items that refer to the use of examples and concept applications and to opening behaviors to generate a good climate and student participation. Factor 2 (Organization) is composed of seven items that relate to the way to organize or structure the subject based on the objectives to improve understanding of the material. Factor 3 (Support) has six items that refer to guidance behavior for learning and positive relationship with the student. Factor 4 (Enthusiasm) has five items that relate to the use of nonverbal behaviors of expressiveness. Factor 5 (Clarity) consists of four items that relate to the clarity of content presentation in class appealing to the use of various resources. Factor 6 (Pace) consists of three items that refer to the rate at which information is presented, efficient use of class time (see Table 2).

Table 2. *TBI's internal structure, factor loadings, and variance explained for each factor*

Items	1	2	3	4	5	6
Tells jokes or funny anecdotes	.69					
Uses concrete examples taken from real life to explain concepts or principles	.59					
Smiles or laughs while teaching	.59					
Gives several examples of each concept	.57					
Shows tolerance to other points of views	.53					
Incentivizes students to make questions during class	.53					
Incorporates to class students' ideas	.44					
Indicates the practical applications of concepts	.40					
Talk to students before or after	.38					
Explains the subject using a colloquial language with common words	.33					
Speaks at an appropriate pace	.31					
Explains how each topic is articulated with the rest of the subject		.75				
Periodically summarizes the previously spoken points		.63				
Looks back at the beginning of each class previously viewed topic		.62				
Provides an overview of the class before starting it		.61				
Indicates the objectives of each class		.59				
Indicates the overall objectives of the subjects		.58				
Reminds students exam dates or the deadline for submission of work		.43				
Offers help to students with problems			.56			
It provides model exam questions			.56			
Announces its availability for query classes after hours of the subject			.53			
Advises students regarding preparation for tests or examinations			.45			
It addresses each student calling him by name			.40			
He suggests ways to memorize complicated ideas			.31			
Makes gestures with the head or body				.66		
Shows gestures or facial expressions				.59		
Gestures with hands or arms				.53		
Walk through the aisles of the classroom and stands next to students				.53		
Moves around the classroom while giving classes				.51		
Makes an outline of the class on the board or it shows it on a screen					.80	
Uses titles or captions to organize the class					.67	
Clearly indicates the transition from one topic to the next					.43	
Write the most important terms on the board or projected on a screen					.41	
It leaves the main theme of the class						-.78
He gets delayed on obvious points						-.63
Covers too little material in class						-.52
% of variance explained for each factor	24.81	7.41	5.23	4.97	4.67	3.84

Reliability: Internal consistency

The results in Table 3 show that the six emerging factors of factor analysis have appropriate values of internal consistency.

Table 3. *Internal consistency of the TBI's scales*

Scales	α
Exemplifying/ Interaction	.84

	.83
Organization	.83
Support	.75
Enthusiasm	.75
Clarity	.71
Pace	.65

Test-criterion validity: bivariate correlations

Bivariate correlations of the TBI's scales with boredom, enjoyment, task value, attention and self-efficacy (Table 4) were obtained.

Table 4. *Bivariate correlations between the TBI's scales and criterion variables*

	1	2	3	4	5	6	7	8	9	10	11
1.Exemplifying/Interaction	-										
2. Organization	.51**	-									
3. Support	.59**	.52**	-								
4. Enthusiasm	.48**	.33**	.39**	-							
5. Clarity	.28**	.42**	.24**	.17**	-						
6. Pace	.16**	.21**	.17**	.12**	.21**	-					
7. Enjoyment	.56**	.43**	.47**	.26**	.34**	.28**	-				
8. Boredom	-.45**	-.35**	-.33**	-.23**	-.27**	-.39**	-.74**	-			
9. Task value	.30**	.11*	.24**	.18**	.20**	.18**	.64**	-.45**	-		
10. Attention	.29**	.18**	.28**	.17**	.14**	.21**	.66**	-.70**	.44**	-	
11. Self-efficacy	.29**	.12*	.25**	.17**	-.01	.06	.36**	-.27**	.34**	.35**	-

Note: *p < .05; **p < .01

Significant and positive correlations of all scales with moderate to high magnitudes with enjoyment and moderate but negative with boredom were observed. Exemplifying-Interaction and support presented moderate and weak correlations, respectively, with task value, attention and self-efficacy. Organization presented marginally moderate correlation values with task value, attention and self-efficacy, while enthusiasm correlations were weak. Finally, clarity and pace correlated weak but positively with task value and attention, although no significant correlations with self-efficacy were found.

Additionally, different regression analyzes were performed by steps to analyze the predictive ability of teachers behaviors on the criterion variables (Table 5). It was found that the Exemplifying / Interaction factor has greater predictive value for the criterion variables, the remaining factors had less significant results than expected and doesn't coincide in all cases with the results of the bivariate correlations. The factor that evaluates the Exemplifying/ Interaction is the variable that is mostly associated with promoting the enjoyment, this factor makes an important contribution predicting enjoyment, the more these behaviors are made more enjoyment it's promoted. The same also influences on boredom but with the opposite effect to enjoyment. The Exemplifying / Interaction factor forecast to a lesser extent the task value, attention and self-efficacy compared to the predictive value to emotions. As for the results of Pace factor this presents greater prominence with boredom, it means that the lack of

pace in class increases boredom as well as decreases task value and attention. Finally, the factors measuring Clarity and Support contribute significantly to the prediction of task value.

Table 5. *Stepwise regressions between TBI's scales and criterion variables*

Criterion Variables	Predictors	R^2	ΔR^2	β	T	p
Enjoyment	Exemplifying Interaction	.320***	.320 ***	.37	10.23	.000
	Clarity	.357***	.038***	.14	4.48	.000
	Pace	.383***	.026***	-.15	-5.12	.000
	Support	.401***	.018***	.15	3.95	.000
	Organization	.404***	.004*	.08	2.16	.031
Boredom	Exemplifying Interaction	.204***	.204***	-.338	-9.71	.000
	Pace	.311***	.107***	.307	9.98	.000
	Organization	.319**	.009**	-.083	-2.24	.025
	Clarity	.324*	.004*	-.073	-2.20	.028
Task value	Exemplifying Interaction	.091***	.091***	.294	5.43	.000
	Pace	.124***	.033***	-.150	-3.40	.001
	Clarity	.145**	.021**	.187	4.01	.000
	Organization	.156*	.011*	-.173	-3.08	.002
	Support	.166*	.010*	.129	2.32	.021
Attention	Exemplifying Interaction	.084***	.084***	.208	3.98	.000
	Pace	.128***	.044***	-.192	-4.35	.000
	Support	.143**	.015**	.148	2.81	.005
Self-efficacy	Exemplifying Interaction	.085***	.085***	.219	4.10	.000
	Support	.097*	.012*	.132	2.47	.014

*Note. *** p <.001, **p < .01, *p < .05; R² = Determination coefficient, Δ R²=Change in R-squared, β=Standardized Beta coefficient, p=Significance level.*

Discussion

In the present work was carried out the assessment of the psychometric properties of the TBI (Murray, 1983) in a sample of Argentinean university students. To do this we sought to analyze the internal structure of the instrument, evaluate the scales' internal consistency and provide evidence of test-criterion validity. Although the instrument didn't turned out with the same structure of the original instrument, six scales with good internal consistency and good predictive ability evidenced through relationships with relevant results to assess the impact of teachers' teaching behaviors were obtained.

Internal Structure

The history of application of the TBI point out that it didn't always reached the same factorial structure and that it generally identified between eight and ten factors. Clarity, excitement, interaction, organization and speech are the factors found in most studies. This is

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shown by a study by Murray (1985) where the structure that was obtained was of six factors with a total of thirty items, which would be the closest version to the achieved in this paper . In addition, in both studies are shared four of the six factors that compose them (enthusiasm, clarity, organization, interaction). While the specific behaviors that assess each item are not exactly the same in both versions, they are oriented to assess the same dimensions. In this case, the TBI was composed of thirty-six items and six factors that assess teachers behaviors of exemplifying-interaction, organization, support, enthusiasm, clarity and pace.

Added to this, six items were removed by asymmetry problems or kurtosis. These items lack specificity or are very infrequent or frequent (It has distracting habits, speaks to an appropriate volume, it speaks clearly, stutters, and avoids eye contact with students). After the preliminary removal of these items, other items were removed by problems in their factor loadings. While the content of these items was clear, they were not very specific in terms of the assessed factor, carrying two or more factors (He asks questions aimed at the whole group). Moreover, some items were not relevant to the assessment of any factor given their low factor loadings (Gives classes reading words by words). Also the removal of some items could be due to the difficulty in interpreting and rate items containing negations (Doesn't define new or unfamiliar terms or doesn't leave the subject when answering questions from students). In this regard, it should be noted that in this new version of TBI almost all unwanted behaviors for good teaching performance were eliminated except for the factor that assesses the pace of the class. Beyond these considerations, it counts on the relevant scales for assessing the dimensions most valued in different studies of instructional teaching quality. For example, studies of Marsh and Bailey (1993 SEEQ) evaluate, among other dimensions, enthusiasm, organization, group interaction, individual counseling. Also the instrument developed by Goetz et al. (2013, Teaching Characteristics) shares assessment criteria with the TBI adapted in this work, as exemplifying, enthusiasm, lack of clarity, pace.

Internal Consistency

The results of the instrument's internal consistency were good for all inventory factors (.65 to .84). It is necessary to consider that the alpha value is affected by the number of items that compose a scale (Loewenthal, 2001), which could explain the low value of the pace scale that has only three items. However, despite the small number of items of this scale, each item has satisfactory factor loadings supporting the validity of the scale. In the case of the other scales their alphas presented values (.71 to .84) similar to those of the original instrument (.77 to .96).

Test criterion validity

Generally it was found that all TBI's scales were moderate predictors of enjoyment, boredom, attention, task value and self-efficacy in different magnitudes. These results agree with the ideas of Pekrun and Perry (2014), which argue that teaching behavior is considered an important factor in the development of academic emotions.

The factor that had a higher predictive value was the Exemplifying-interaction, these results were held under both the bivariate correlations method as the multiple regression. We believe it is so because it is the factor containing the teaching behaviors most positively valued according to the literature on the subject, including oriented behaviors on the approach to students, providing the contents of the material for student understanding and promoting students' participation. According to Smith (1977), this type of behavior (e.g., asking questions to students during class) encourages critical thinking skills compared with students who their teachers do not encourage these skills. Moreover, this factor also evaluates behaviors related to the teacher-student interaction, which is a relevant criterion in the

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development of academic emotions. For example, the mood of teachers may be one of the causes that lead students to feel more enjoyment in class, through emotional contagion (Hatfield et al., 1994; Mottet & Beebe, 2002).

Another important factor is the support. Oriented behaviors to a more tutorial role of the teacher, as advise students to prepare for tests, offer help, announce their availability for consults, moderately increase the enjoyment of students and moderately reduces boredom in class. By contrast, using the method of multiple regressions this factor does not appear to be relevant to the prediction of other variables, it is striking that results presented are so distant.

Regarding to the Clarity factor results were less significant than expected in terms of the variables of enjoyment and boredom because in previous research (Frenzel, Pekrun, & Goetz, 2007; Goetz, 2004; Goetz, Hall, Frenzel, & Pekrun, 2006; Goetz, Pekrun, Hall, & Haag, 2006), it was mentioned that high levels of clarity are positively related to the enjoyment and negatively with boredom. While there are less significant than expected, the clarity of a teacher remains a moderately predictive factor of enjoyment, boredom and to a lesser extent, task value. As for the predictive value of the clarity with self-efficacy of students it didn't show up as expected as it was hypothesized that the way a task is presented (for example, if it is presented as more difficult than it really is or if the activities instructions are not clear) can influence the interpretation of whether it is possible to do or not. On the contrary, the results show a very low predictive value (.12) of clarity for self-efficacy. The pace with which a teacher presents a subject has implications on emotions and states of students, this means, that if the teacher is delayed or repeats many times obvious things would be very logical that students get bored and lose attention on the class, whether this class is presented very slowly or very quickly the effect is the same. On the contrary, if the teacher knows how to manage time and manages to make a presentation with a steady pace according to the rhythm of the students they enjoy and give greater value to matter. According to data, pace of the class is a moderate indicator of these variables (between -.39 and .18).

It is very striking that the excitement factor has not presented a higher correlation with the criterion variables, especially with attention and academic emotions. First, because the enthusiasm manifestations or expressive behaviors are promoters of attention through their movements ,the teacher brings dynamism to the class and makes the student more attentive (Murray & Lawrence, 1980). Second, the teacher enthusiasm positively impacts on the enjoyment of students and negatively on boredom in class (Frenzel et al., 2009; Goetz, Frenzel, Pekrun, & Hall, 2006). If the teacher makes behaviors like talking and moving around while dictating the class, makes eye contact with students and show enthusiasm for the subject, probably will attract the attention of their students, as these behaviors involve elements of variation of a stimulus and spontaneity (Murray , 1991). Also teacher's expressed enthusiasm about certain subject leads students perceive it as relevant and award greater importance and dedication to the subject (task value).

Finally, regarding self-efficacy have not been had very significant results except for the factor exemplifying / interaction and support. Consequently, be tolerant to other points of view, encourage them to ask questions or incorporate students' ideas in the class, giving concrete examples, indicate practical applications, suggest ways to study and prepare for exams , makes students experience greater security on their abilities.

While there are many studies that analyze the characteristics of instruction teaching quality, this study would be the first adaptation to Spanish language of the TBI, which would at the same time, make innovative empirical research in our context. This instrument is useful to provide feedback on their performance to teachers, which would allow a concrete knowledge about their best and worst behaviors qualified for effective teaching role.

In summary, the TBI is an easy instrument to respond and rate, useful to provide diagnostic feedback to improve teaching, as they are very specific behaviors, and research has shown that teachers can influence through their behaviors to learning, motivation, emotions and student performance. This is particularly reflected in the behaviors that measure the Exemplifying / interaction that contribute to the prediction of these variables.

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