Measuring Threats, Benefits, Emotional Costs and Avoidance of Academic Help-Seeking in Argentinian University Students¹

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Abstract

Objective. The psychometric properties of four academic help-seeking scales measuring benefits, threats, emotional costs and avoidance of academic help-seeking in two samples of Argentinian university students were tested. **Method.** In phase one, a three correlated-factors measurement model (benefits, threats, emotional costs) and a one-factor model (avoidance) were evaluated. In phase two, two models where social academic self-efficacy (SAS), task value and achievement goals would predict the help-seeking constructs which, in turn, would predict shame in class were evaluated. **Results.** In phase one, the confirmatory factor analysis strongly supported the models, and all of the factor loadings were high. In phase two, on the one hand, SAS predicted benefits, threats and emotional costs. Moreover, threats and emotional costs predicted shame. Even more, SAS predicted shame via its effects on threats and emotional costs. On the other hand, SAS, task value, and performance-approach predicted avoidance. Moreover, avoidance and SAS had a direct effect on shame. The benefits, threats, emotional costs, and avoidance scales demonstrated adequate levels of internal consistency ($\alpha = 0.85$, 0.72, 0.90, and 0.90). **Conclusion.** The scales are reliable, internally valid as demonstrated by the factor analyses, and externally valid in terms of relationships with motivational and emotional constructs.

Keywords. Self-regulated learning, self-efficacy, achievement emotion, task value, achievement goals.

Evaluación de amenazas, beneficios, costos emocionales y evitación de la búsqueda de ayuda académica en estudiantes universitarios argentinos

Resumen

Objetivo. Se evaluaron las propiedades psicométricas de cuatro escalas de búsqueda de ayuda académica que miden beneficios, amenazas, costos emocionales y evitación de la búsqueda de ayuda académica en dos muestras de estudiantes universitarios argentinos. **Método.** En la fase uno se evaluó un modelo de medición con tres factores relacionados (beneficios, amenazas, costos emocionales) y un modelo unidimensional (evitación). En la fase dos se evaluaron dos modelos donde autoeficacia social académica (ASA), valor de la tarea y metas

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de logro predecirían los constructos de búsqueda de ayuda, los cuales predecirían la vergüenza en clase. **Resultados.** Los análisis factorial confirmatorios, realizados en la fase uno apoyaron los modelos, con elevadas cargas factoriales. En la fase dos, se encontró que ASA predijo beneficios, amenazas y costos emocionales. Adicionalmente, amenazas y costos emocionales predijeron vergüenza. Incluso, ASA predijo vergüenza, vía sus efectos en amenazas y costos emocionales. Por otro lado, ASA, valor de la tarea y aproximación-rendimiento predijeron evitación. Además, evitación y ASA tuvieron un efecto directo sobre vergüenza. Las escalas de beneficios, amenazas, costos emocionales y evitación demostraron niveles adecuados de consistencia interna ($\alpha = 0.85$, 0.72, 0.90 y 0.90). **Conclusión.** Las escalas son confiables, válidas internamente como demostraron los análisis factoriales, y válidas externamente en términos de relaciones con constructos motivacionales y emocionales.

Palabras clave. Autorregulación del aprendizaje, autoeficacia, emociones de logro, valor de la tarea, metas de logro.

Avaliação de ameaças, benefícios, custos emocionais e evitação da procura de ajuda académica em estudantes universitários argentinos

Resumo

Escopo. Foram avaliadas as propriedades psicométricas de quatro escadas de procura de ajuda académica que medem benefícios, ameaças, custos emocionais e evitação da procura de ajuda académica em duas amostras de estudantes universitários argentinos. **Metodologia.** Fase um: foi avaliado um modelo de medição com três fatores relacionados (benefícios, ameaças, custos emocionais) e um modelo unidimensional (evitação). Fase dois: foram avaliados dois modelos onde autoeficácia social académica (asa), valor da tarefa e metas de logro poderiam predizer os construtos de procura de ajuda, os quais poderiam predizer a vergonha na aula. **Resultados.** Fase um: Análises fatoriais confirmatórios apoiaram os modelos, com elevadas cargas fatoriais. Fase dois. Por um lado, asa previu benefícios, ameaças e custos emocionais. Adicionalmente, ameaças e custos emocionais. Por outro lado, asa, valor de tarefa e aproximação-rendimento previram evitação. Além, evitação e asa tiveram um efeito direito sobre vergonha. As escadas de benefícios, ameaças, custos emocionais e evitação demostraram níveis adequados de consistência interna ($\alpha = 0.85$, 0.72, 0.90 y 0.90). **Conclusão.** As escadas são confiáveis, válidas internamente como demostraram análises fatoriais, e válidas externamente em términos de relações com construtos motivacionais e emocionais.

Palavras-chave. Aprendizagem auto-regulada, auto-eficácia, emociones de logro, valor da tarefa, metas de logro.

Introduction

When university students do not achieve solving mathematical problems, understanding text material or completing assignments, they often rely on strategies such as rereading a text more slowly, looking over class notes, or searching for information in a library or web site. If these efforts are ineffective they may also turn to teachers, classmates, friends, or parents for the needed assistance to solve these difficulties. Nonetheless, many students do not seek help even when they know that need it. From Sharon Nelson-Le Gall's pioneering work in the 1980s and others (Karabenick & Newman, 2006), researchers have engaged in a sustained effort to integrate help-seeking within the frameworks that explain the academic achievement (Karabenick, 1998; Karabenick & Newman, 2006; Karabenick & Puustinen, 2013; Mäkitalo-Siegl & Fischer, 2011). Recent theoretical developments and empirical research indicate that help-seeking is a typical achievement activity in students with a better motivational and emotional pattern (Karabenick, 1998, 2004; Karabenick & Newman, 2000, 2006; Sánchez Rosas, 2013; Zimmerman, 2008).

Presented below is a study that assesses the psychometric properties of a series of scales validated to Spanish that assess the benefits, threats, emotional costs, and avoidance of help-seeking, in two samples of Argentinean university students. In the present research, the purposes are: (a) to examine internal structure and to obtain data of internal consistency from each scale, and (b) to provide test-criterion validity.

Benefits, threats, emotional costs, and avoidance of help-seeking

The benefits of help-seeking reflect that this is a useful strategy that promotes learning (Newman, 1990; Newman & Goldin, 1990; Wolters, Pintrich & Karabenick, 2003). Pajares, Cheong and Oberman (2004) refer to the benefits of help-seeking as the positive ramifications of seeking help on a task from an individual perspective. Additionally, the avoidance of help-seeking refers to instances when a student needs help but does not ask for it (Ryan & Pintrich, 1997; Ryan, Pintrich & Midgley, 2001). Pajares et al. (2004) developed the Computer Science Help-Seeking Scales that assess instrumental help-seeking, executive help-seeking, perceived benefits of help-seeking, and the avoidance of help-seeking. Their benefits and avoidance of helpseeking scales reflect the conceptual definitions of these constructs. By conducting factor analysis the latent structure underlying the items was examined. In order to demonstrate test-criterion validity, they also examined the relationship between the scales and motivation and achievement constructs frequently used in the study of academic motivation (Pajares et al., 2004).

In addition, the threats of help-seeking have been consistently described as a threat or detriment to self-esteem, and can increase or decrease the likelihood that students will ask for help (Karabenick, 2003; Ryan, Pintrich & Midgley, 2001). In fact, the need for help is construed as evidence of low ability, and thus will incur negative reactions or judgments from others. In this regard, these concerns may be affecting the decision to seek help (Ryan & Pintrich, 1997). In the present study, the scale developed by Wolters et al. (2003) containing items consistent with the definition of threats of help-seeking and good reliability.

Since Pajares et al. (2004), scales have a clear intention to prove its psychometric properties, in this study the benefits of help-seeking and avoidance of help-seeking scales were selected. In addition, the Wolters et al. (2003) threats of help-seeking scale was also included. Finally, we estimated the emotional costs of a help-seeking scale that assesses the negative affective states involved in help-seeking. In summary, next we assess the psychometric properties of the benefits, threats, emotional costs, and avoidance of helpseeking scales.

Method

Participants

Two separate samples of Argentinean undergraduates of the National University of Córdoba participated, and different faculties were surveyed because they were accessible. Distribution by gender represents the habitual distribution in the faculties sampled. The samples were self-selected because the guests decided whether or not to participate in the study (Sterba & Foster, 2008). In the sample, 1433 students (77 % female, 23 % male; M = 20.25 years, SD = 3.72) of three different faculties responded to the benefits of help-seeking, threats of help-seeking, emotional costs of helpseeking, social academic self-efficacy and class shame scales. In the sample 2666 students (85 % female, 15% male; M = 25.09 years, SD = 6.79) of eleven different faculties answered to avoidance of help-seeking, social academic self-efficacy, task value, mastery-approach, mastery-avoidance, performance-approach, performance-avoidance and class shame scales.

Measures

The Benefits of help-seeking (Pajares et al., 2004) questionnaire has seven items and assesses benefits of help-seeking related to interest and enjoyment (e.g., I enjoy this class more when I ask questions, four items) and benefits related to improving learning and understanding (e.g., I think asking questions in this class helps me learn, three items). Pajares et al. (2004) reported an alpha coefficient of 0.91 for their perceived benefits of help-seeking items. Participants responded on a scale from 1 (*definitely false*) to 8 (*definitely true*).

The Avoidance of help-seeking (Pajares et al., 2004) scale has nine items (e.g., I don't ask questions in class even if I don't understand the lesson) that assess the class instances when a student needs help and does not seek it. Pajares et al. (2004) reported an alpha coefficient of 0.86 for their avoidance of help-seeking items. Participants responded on a scale from 1 (*definitely false*) to 8 (*definitely true*).

Threats of help-seeking (Wolters et al., 2003) questionnaire has four items and assesses threats to self-esteem of help-seeking (e.g., Getting help in this class would be an admission that I am not smart enough to do the work on my own). The original alpha coefficient is 0.84. Participants used a 5-point (1 to 5) response scale anchored with the statements *not at all true* and *completely true*.

Emotional costs of help-seeking scale is a three item scale developed for this study. This scale evaluates the negative impact that help-seeking has on affective states (e.g., Asking questions makes me feel uncomfortable). Participants responded on a 1 (strongly disagree) to 5 (strongly agree) scale.

Social academic self-efficacy (Olaz, 2006) is a scale developed and validated for the university population of Córdoba, Argentina. It assesses students' beliefs regarding their interpersonal abilities in an academic context. It has seven items (e.g., Ask questions to the teacher loudly and in front of your classmates) and the original internal consistency is good ($\alpha = 0.84$). Participants responded on a scale from 1 (*I can't do it*) to 10 (*totally sure I can do it*), expressing confidence for each behavior. Unidimensionality and internal consistency were tested. Good results were obtained (*KMO* = 0.85 and 0.89, 57% and 66% variance accounted and factor loadings > 0.30 and > 0.52, $\alpha = 0.86$ and 0.91, in samples one and two respectively.

Class shame (Sánchez Rosas, 2011) is an adapted Spanish class-shame scale of the Achievement Emotions Questionnaire (Pekrun, Goetz, Frenzel, Barchfeld & Perry, 2011) for the university population of Córdoba. It is a scale of seven items (e.g., When I say anything in class I feel like I am making a fool of myself). Unidimensionality and internal consistency were tested. Optimum results were obtained [χ^2 (14, N = 232) = 20.44, *p* = 0.11, $\chi^2/df = 1.46$, CFI = 0.98, GFI = 0.98, RMSEA = 0.04; $\alpha = 0.88$]; [χ^2 (14, N = 666) = 71.90, *p* = 0.01, CFI = 0.97, GFI = 0.97, RMSEA = 0.07; α = 0.88], in samples one and two respectively. Students rated their emotional experiences of shame in the classroom on a five point Likert scale from 1 (*never*) to 5 (*always*).

The Achievement Goals (Sánchez Rosas, 2015) is a Spanish adaptation of the AGQ-R (Elliot & Murayama, 2008) that assesses the well-established 2 × 2 achievement goal framework. Students must answer 12 items expressing the degree of agreement with each item on a scale of 1 (strongly disagree) to 5 (strongly agree). Here, dimensionality and internal consistency were tested. Optimum results were obtained $[\chi^2 (48, N = 666) = 96.69, p = 0.001,$ CFI = 0.99, GFI = 0.98, RMSEA = 0.039]. Subscales and internal consistency are: (a) mastery-approach (e.g., My aim is to completely master the material presented in this class, $\alpha = 0.83$), (b) masteryavoidance (e.g., My aim is to avoid learning less than I possibly could, $\alpha = 0.89$), (c) performanceapproach (e.g., My aim is to perform well in relation to other students, $\alpha = 0.91$) and (d) performanceavoidance (e.g., My aim is to avoid doing worse than other students, $\alpha = 0.96$).

The Task value (Pintrich, Smith, García & McKeachie, 1993) scale assesses the student's perception of the extent to which learning materials and contents are interesting, important, and useful. It has six items (e.g., I think what I learn in this course will be useful in another) and the original scale presents good internal consistency ($\alpha = 0.90$). Participants respond on a 1 (strongly disagree) to 5 (strongly agree) scale. This scale proved test criterion validity respect achievement emotions in university students from Córdoba, Argentina (Sánchez Rosas, Piotti, Sánchez, Pereira & Debat, 2011). In the present study, unidimensionality and internal consistency were tested. Acceptable results were obtained (KMO = 0.86, 58% variance accounted and factor loadings > 0.70, $\alpha = 0.85$).

All the scales ask students about their global, general experiences with respect to their subjects.

Procedure

Initially, an official translator carried out a direct translation from English to Spanish of what was said by the participants of the objective population of the help-seeking scales. In this process, the translator was guided on conceptual issues that could clarify the intentionality of each item, regarding the objective population. The items from the benefits, threats, emotional costs and avoidance of helpseeking scales were phrased expressing the general experience of help-seeking in class.

Because the scales assess facets of the same construct (help-seeking), an unification of the response format was carried out. It was expected to generate less confusion and facilitate the response process. The response format was adapted to evaluate the degree of agreement with each item ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Protocols were designed with consent added to the set of selected scales for this investigation, and were administered to the samples in regular classes during the first (sample 1) and second semesters (sample 2) of the academic year. Participants were informed by the researchers of this article about the study objectives, anonymous and confidential data processing, and they all agreed voluntarily to complete the protocols administered. The process of completing the protocols took 30 minutes.

Data Analysis

In samples one and two, an exploratory factor analysis was conducted to identify the latent constructs underlying the help-seeking items. The first analysis included the 14 items used to assess benefits, threats and emotional costs of helpseeking. The second analysis included the nine avoidance items. The maximum likelihood factor extraction method was used, since it produces the best parameter estimates (Pérez & Medrano, 2014). As the benefits, threats and emotional costs factors were expected to be intercorrelated, the oblique rotation was chosen (Promax). In addition, there are different decision rules for retaining factor that sometimes provide conflicting information. For this reason, it is important that the factor analyst uses multiple criteria (Kahn, 2006). The factor analysis guidelines recommended by Pérez and Medrano (2014) and multiple criteria were used for selecting the number of factors: (a) Kaiser's eigenvaluegreater-than-one rule, (b) Cattell's scree test, (c) a parallel analysis technique that compares the eigenvalues of the reduced correlation matrices and those expected for random data, and (d) the interpretability of the rotated factors.

In samples one and two, a confirmatory factor analysis was conducted on the help-seeking items. The confirmatory factor analysis is part of the Structural Equations Model, a statistical methodology

that takes a confirmatory approach to the analysis of a structural theory bearing on some phenomenon (Byrne, 2009). The first analysis included the items resultant from the exploratory factor analysis used to assess the benefits, threats and emotional costs of help-seeking. This first confirmatory factor analysis examined a hypothesized model, in which the items for each benefit, threats, and emotional costs scales load on their respective latent factors, and all the residuals were uncorrelated. The second analysis included the avoidance items resulting from the exploratory factor analysis, and hypothesized that all items load on a latent factor called avoidance, and all the residuals were uncorrelated. The analysis was conducted on covariance matrices, and the solutions were generated on the basis of maximum-likelihood estimation. As recommended by Pérez, Medrano and Sánchez Rosas (2014), several different indexes were used to evaluate the data fitting to the models: chi-square degree of freedom ratio ($\chi 2/df$), comparative fit index (CFI), goodness fit index (GFI), and root-mean square error of approximation (RMSEA). The following criteria were used to evaluate the adequacy of model fit: $\chi 2/df \le 2.0$ (Hair, Black, Babin, & Anderson, 2010), CFI \geq 0.90, GFI \geq 0.90, and RMSEA \leq 0.08 (Byrne, 2009). Also, significant standardized regression coefficients were interpreted.

The internal consistency was estimated using Cronbach's alpha coefficient. The following criteria were used: 0.70 acceptable, 0.80 good, and 0.90 excellent (George & Mallery, 2007).

In order to provide test-criterion evidence two path analyses were carried out where motivational variables would predict help-seeking constructs which, in turn, would predict shame. Suggestions of Pérez et al. (2014), in order to interpret the fit indexes, direct and indirect effects were followed. The following criteria were used to evaluate the adequacy of model fit: $\chi 2/df$, CFI, GFI, RMSEA, and significant path coefficients.

The IBM SPSS Amos 19 (Arbuckle, 2010) program was used to conduct the statistical analysis according to the proposed objectives.

Results

Previous to the central analysis, an initial exploration of all items was conducted to evaluate missing values, univariate and multivariate

atypical cases, and normal univariate distributions. Subsequently, identification was made of univariate and multivariate atypical cases by calculating the standard z score for each variable (z scores > 3.29were considered atypical) and the Mahalanobis distance measure (p < .001). As a result of these tests, one atypical case was removed from dataset of sample one, and the values for asymmetry and kurtosis were between -2 and +2, which are considered acceptable in order to prove normal univariate distribution (George & Mallery, 2007). In sample two, three items with univariate atypical cases (z > 3.29) and excessive kurtosis (> 2) were found (I would rather do worse on an assignment I couldn't finish than ask for help in this class, I would put down any answer rather than ask for help in this class, If work in this class is too hard, I don't do it rather than ask for help). These items were removed, and principal analysis with remaining items, were carried out.

An exploratory and confirmatory strategy was carried out. Samples one and two were randomly divided (N = 207 and 330, exploratory sample; N = 226 and 336, confirmatory sample).

Phase 1. Internal Structure and Internal Consistency

Benefits, Threats and Emotional Costs of Helpseeking: Exploratory Factor Analysis and Internal Consistencies.

The Kaiser's eigenvalue-greater-than-one rule, the Scree test, and the Parallel Analysis denoted the presence of three factors. Three correlated factors were extracted and rotated (Promax), explaining the 60.5% of the variance. All items loaded clearly higher to 0.40, except for the item "I feel smart when I ask a question in this class" which was removed. A new analysis (KMO = 0.82) showed three correlated factors explaining 63.9% of the variance. Benefits factor correlated negatively with emotional costs (r = -0.40) and threats (r = -0.20) factors; emotional costs and threat factors correlated positively (r =0.27). Factor 1 is integrated by six items measuring the benefits of help-seeking, factor 2 contains 3 items measuring the emotional costs of helpseeking, and factor three has four items measuring threats of help-seeking. In this sample the three scales demonstrated acceptable and good levels of internal consistency (Table 1).

Table 1

Factorial structure of benefits, emotional costs, and threats of help-seeking

#	Item	b-hs	c-hs	t-hs
13	I enjoy this class more when I ask questions.	0.84		
15	I like to ask for help in this class because it helps me understand the topic better.	0.78		
3	Asking questions makes this class more interesting for me.	0.74		
6	I think asking questions in this class helps me learn.	0.66		
9	I like to ask for help in this class because it helps me understand better.ª	0.64		
1	I like to ask questions in this class.	0.58		
4	Asking questions in this class makes me feel uncomfortable.		0.87	
14	Asking questions in this class makes me feel nervous.		0.87	
2	Asking questions in this class embarrasses me.		0.83	
11	Others would think I was dumb if I asked for help in this class.			0.75
10	Asking for help would mean I am not as smart as other students in the class.			0.72
8	Getting help in this class would be an admission that I am just not smart enough to do the work on my own.			0.59
5	I would not want anyone to find out that I needed help in this class.			0.42
	Cronbach's α	0.86	0.72	0.89

Note. N = 207. The values represent factor loadings. b-hs = benefits of help-seeking; c-hs = emotional costs of help-seeking; t-hs = threats of help-seeking. (Numbers indicate ordered items in protocols).

^a Item 9 was removed in the confirmatory factor analysis.

Avoidance of Help-Seeking: Exploratory Factor Analysis and Internal Consistencies.

The Kaiser's eigenvalue-greater-than-one rule, the Scree test, and the Parallel Analysis denoted the presence of only one factor (KMO = 0.92),

Table 2

Factorial structure of avoidance of help-seeking

explaining the 75% of the variance. In this sample the six items demonstrated an excellent level of internal consistency (Table 2). The removal of any items did not affect the Cronbach's value, suggesting a very probable overlapping between the measures obtained through each item.

#	Item	It-factor
1	I don't ask for help in this class even when the work is too hard to solve on my own.	0.79
2	If I need help to solve a doubt in this class, I prefer to skip it rather than to ask for help.	0.91
3	I don't ask for help in this class even if I don't understand the lesson.	0.91
4	If I didn't understand something in this class, I would guess rather than ask someone for help.	0.82
6	Even if the work was too hard to do on my own, I wouldn't ask for help in this class.	0.82
8	I don't ask questions in this class even if I don't understand the lesson.	0.75
	Cronbach's α	0.93

Note. N = 330. The values represent factor loadings (Numbers indicate ordered items in protocols).

Benefits, Threats and Emotional Costs of Help-Seeking: Confirmatory Factor Analysis and Internal Consistencies.

A confirmatory factor analysis was made in order to examine the resulting oblique model of the exploratory factor analysis. The items for each scale load on their respective latent factors, and the three factors were related. The fit indexes were acceptable: χ^2 (62, N = 226) = 113.84, *p* = 0.001, $\chi^2/df = 1.84$, CFI = 0.96, GFI = 0.93, RMSEA = 0.061. An exploration of the modification indexes suggested relating the errors corresponding to the items 9 "I like to ask for help in this class because it helps me understand better" and 15 "I like to ask for help in this class because it helps me understand the topic better". As shown, notable overlapping exists on the content of the items. For this reason, and because it presented the lowest standardized regression weight, item 9 was removed. The results from a new analysis strongly supported the three correlated-factors model. All factor loadings were high ($p \le .001$), and each fit statistic met the criteria for a good fitting model: [χ^2 (51, N =226) = 69.68, p = 0.042, $\chi^2/df = 1.36$, *CFI* = 0.98, *GFI* = 0.95, *RMSEA* = 0.040]. In this sample the three scales demonstrated good, acceptable, and excellent levels of internal consistency: benefits of help-seeking, emotional costs of help-seeking, and threats of help-seeking, Cronbach's $\alpha = 0.85$, 0.72, and 0.90 respectively (See figure 1).



Figure 1. Three related factors model for benefits of help-seeking, threats of help-seeking, and emotional costs of help-seeking. Estimates are standardized. Error variables are not represented in order to simplify the presentation.V1–V15 represent the individual items of the scale (the numbers indicate the order of items in the questionnaire).

Avoidance of Help-Seeking: Confirmatory Factor Analysis and Internal Consistencies.

Based on the previous results from the exploratory factor analysis, a one-factor-model was specified where all the six items loaded on to a latent factor. The fit indexes were marginally acceptable: χ^2 (9, N = 336) = 29.30, p = 0.001, $\chi^2/df = 3.26$, CFI = 0.98, GFI = 0.97, RMSEA = 0.082. An additional exploration of the modification indexes suggested a relation between the error corresponding to

the item 1 "I don't ask for help in this class even when the work is too hard to solve on my own" to the other three errors. For this reason, item 1 was removed and the parameters for the model were re-estimated. The fit indexes for this solution with five items were optimal χ^2 (5, N = 336) = 6.81, p =0.24, $\chi^2/df = 1.36$, CFI = 0.99, GFI = 0.99, RMSEA =0.033, all factor loadings were high ($p \le 0.001$), and the internal consistency was excellent ($\alpha = 0.90$) (See figure 2).



Figure 2. Model of avoidance help-seeking. Estimates are standardized. Error variables are not represented in order to simplify the presentation. It2 - it8 represent the individual items of the scale (numbers indicate the order of items in the questionnaire).

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Phase 2. Test-Criterion Validity

Benefits, Threats and Emotional Costs of Help-Seeking: Correlations and Path Analysis.

Research into help-seeking has shown the relationships between help-seeking attitudes and motivational or emotional constructs as self-efficacy and negative emotion (test anxiety). On

one hand, positive relationships between benefits and self-efficacy or threats and anxiety, have been demonstrated. On the other hand, negative relationships between benefits and anxiety or threats and self-efficacy, are reported (Karabenick & Newman, 2006). Correlations of the three helpseeking scales with social academic self-efficacy and shame were considered to provide test-criterion validity (table 3).

Table 3 Bivariate correlations between help-seeking scales and criterion variables

	1	2	3	4	5
1. b-hs	-				
2. t-hs	-0.08	-			
3. c-hs	-0.39**	0.15*	-		
4. sas	0.40**	-0.19**	-0.60**	-	
5. csh	-0.27**	0.39**	0.64**	-0.48**	-

Note. N = 226. b-hs = benefits of help-seeking; t-hs = threats of help-seeking; c-hs = emotional costs of help-seeking; sas = social academic self-efficacy; csh = class shame.

* p < 0.05, ** p < 0.01.

Additionally, achievement shame is a neglected emotion when help-seeking process is considered. As suggested in Sánchez Rosas (2013), the confidence to execute social behaviors (measured through social academic self-efficacy) could influence the perceptions of the consequences of help-seeking. Furthermore, negative emotions as shame, which involve worries about demonstrating incompetence in front of others, could be aroused by the focus of those perceptions. A model where social academic self-efficacy would predict the three help-seeking constructs which, in turn, would predict shame, was tested in order to evaluate the test-criterion validity of these scales. Specifically, social academic self-efficacy was hypothesized to positively predict benefits, and negatively predict threats and emotional costs; benefits would negatively predict shame whereas threats and emotional costs would positively predict shame.

In an initial test of the path analysis, the modification indices suggested correlating the residual variances of benefits and emotional costs. Because of the moderate correlation between both scales, the model was thus tested in the final analysis with this additional specification. The model provided a good fit to the data: χ^2 (3, N = 226) = 3.79, p = 0.29, $\chi^2/df = 1.26$, *CFI* = 0.99, *GFI* = 0.99, *RMSEA* = 0.034, and all of the path coefficients were significant, with the only exception of that between benefits and shame. Additionally, social academic self-efficacy had an indirect effect on shame ($\beta = -0.42$). These results supported the test-criterion validity of the scales respect shame. See figure 3 for a pictorial summary of these findings.



Figure 3. Social academic self-efficacy, benefits, threats, and emotional costs of help-seeking predicting shame in class. Estimates are standardized.

p < 0.01, *p < 0.001. R^2 = explained variance. The error variables, covariances, and the paths from benefits to shame are not represented in order to simplify the presentation.

Avoidance of Help-Seeking: Correlations and Path Analysis

Research into help-seeking has shown the relationships between avoidance of help-seeking, motivational constructs, as self-efficacy, task value or achievement goals, and negative emotion as test anxiety (Karabenick & Newman, 2006). On the one hand, positive relationships of avoidance

of help-seeking with performance goals and shame could be expected. On the other, negative relationships between avoidance of help-seeking and self-efficacy, task value or mastery goals could be expected. Correlations between avoidance of help-seeking and social academic self-efficacy, task value, and achievement goals were considered in order to provide test-criterion validity (Table 4).

	1	2	3	4	5	6	7	8
1. ahs	-							
2. sas	-0.52**	-						
3. task	-0.19**	0.10	-					
4. ma-ap	-0.11*	0.11	0.52**	-				
5. ma-av	-0.02	-0.05	0.37**	0.36**	-			
6. pe-ap	0.16**	-0.08	0.17**	0.31**	0.20**	-		
7. pe-av	0.16**	-0.12*	0.11*	0.18**	0.25**	0.67**	-	
8. shame	0.50**	-0.65**	-0.11*	-0.06	-0.01	0.16**	0.14**	-

Table 4Bivariate correlations between avoidance of help-seeking scales and criterion variables

Note. N = 336. ahs = avoidance of help-seeking; sas = social academic self-efficacy; task = task value; ma-ap = mastery-approach; ma-av = mastery-avoidance; pe-ap = performance-approach; pe-av = performance-avoidance; shame = class shame. *p < 0.05, **p < 0.01.

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In literature, motivational variables have been studied in relation to the avoidance of help-seeking. Task value, achievement goals, anxiety or selfefficacy were found to be predictors of avoidance behavior (Pajares et al., 2004; Ryan & Pintrich, 1997; Tanaka, Murakami, Okuno & Yamauchi, 2002). A model where social academic self-efficacy, task value and achievement goals would predict the avoidance of help-seeking which, in turn, would predict shame, was tested in order to evaluate the test-criterion validity of these scales. Specifically, social academic self-efficacy, task, and mastery goals were hypothesized to negatively predict avoidance; performance goals would positively predict avoidance. Because of the previously indirect effect of social academic self-efficacy on shame (benefits, threats and emotional costs of help-seeking) and the

high correlation informed here (table 4), a direct, negative effect of social academic self-efficacy on shame was supposed.

In an initial test of the path analysis, all hypothesized paths were significant with the exceptions of that between mastery goals and avoidance of help-seeking, and performance-avoidance and avoidance of help-seeking. The model was thus tested in the final analysis with this variables removed. The model provided a good fit to the data: χ^2 (2, N = 336) = 5.18, *p* = 0.08, χ^2/df = 2.58, *CFI* = 0.99, *GFI* = 0.99, *RMSEA* = 0.069 and all path coefficients were significant. These results support the test-criterion validity of the scale respect shame. See figure 4 for a pictorial summary of these findings.



Figure 4. Social academic self-efficacy, task value, performance-approach, and avoidance of help-seeking predicting shame in class. Estimates are standardized.

p < 0.01, *p < 0.001. R^2 = explained variance. Error variables, covariances, and paths from benefits to shame are not represented in order to simplify the presentation.

Discussion

Academic help-seeking is an important strategy associated with motivation, cognition and metacognition, emotion and academic achievement (Karabenick, 1998, 2004; Karabenick & Newman, 2006; Karabenick & Puustinen, 2013; Newman, 2000; Zimmerman, 2008). As different processes are involved in help-seeking, having valid instruments allows the measurement of important factors implied in the process of seeking help. Although several measures have been utilized in academic help-seeking research, the instruments that attest to its psychometric quality are few. This study aimed at assessing the psychometric properties of a series of scales validated to Spanish that measure the benefits, threats, emotional costs and the avoidance of help-seeking in Argentinean university students. Specifically, phase one evaluated the internal structure and the internal consistency of the scales, whereas phase two provided test-criterion evidence of the scales. Reported results provide satisfactory evidence of structural validity, internal consistency, and test-criterion validity. To our knowledge, this is the only study that provided validity evidence using confirmatory factor analysis and path analysis. Indeed, it is the only psychometric study with Spanish-speaking students.

Benefits, Threats and Emotional Costs of Help-Seeking: Internal Structure and Internal Consistency

The exploratory strategy to evaluate the internal structure of the items used to assess benefits, threats and emotional costs of help-seeking denoted the presence of three factors. Even though it does not verify the two dimensions reported by Pajares et al. (2004), for the benefit of help-seeking scale this finding is coincident with habitual data presented in others studies. One item presented a low factor loading and was excluded, probably attributable to undesirable effects of smart gualification (I feel smart when I ask in class) while the rest of the items referred to the pleasantness experienced in helpseeking or understanding improvements. The final solution evidenced three correlated factors with high factor correlations and acceptable reliabilities. Following the exploratory factor analysis results, the confirmatory strategy specified and evaluated an oblique model. At first, the inspection of modification indexes suggested to eliminate a clearly, redundant item. This allowed an improvement in the partially acceptable fit values obtained. The final solution confirms the specification carried out in which every item correlated only with its corresponding factor. The scales showed acceptable values of internal consistency and all the items contribute to obtain higher values of homogeneity in the scale.

Avoidance of Help-Seeking: Internal Structure and Internal Consistency

As the factor structure of the group of items that assess avoidance of help-seeking was being explored, different criteria stated the presence of a unique factor (six items), with high item-factor correlations and excellent levels reliability, which explains most of the variance.

According to this, the confirmatory strategy specified and evaluated a model where one latent factor explained the six items selected by the exploratory strategy. After the elimination of a redundant item, the estimation of the model resulted optimum. The internal consistency of the final solution was excellent ($\alpha = 0.90$, 5 items), and

every item equally contributes to obtain high values of homogeneity in the instrument. Even though four items were lost, a five-item scale of avoidance of help-seeking with excellent value of internal consistency was obtained.

Benefits, Threats and Emotional Costs of Help-Seeking: Test-Criterion Evidence

The path analysis provided test criterion evidence of the scales that evaluated benefits, threats and emotional costs of help-seeking. The socialacademic self-efficacy predicted benefits, threats and emotional costs. Moreover, threats and emotional costs positively predicted shame. This way, the confidence to make the social behaviors necessary to a good performance, such as asking questions in class, would increase the perception of the positive consequences of help-seeking used for academic purposes, and would decrease the negative perceptions of the ramifications of seeking help. The perception of the negative consequences of help-seeking correlated negatively with social academic self-efficacy, although the magnitude of the effect of this relationship was weaker than in the case of the benefits and social academic selfefficacy. Even so, the magnitude of the effect of social academic self-efficacy on emotional costs is the highest. Consequently, the social academic selfefficacy has a differential, motivational impact on the attentional focus on the possible derivations of the help-seeking. Even more, social academic selfefficacy would decrease the shame experienced in class via its effects on threats and emotional costs.

On the other hand, the positive effects of emotional costs and threats on shame provide evidence for the test-criterion validity of these scales. When a student needs help from other to solve a problem, he is exposing a personal failure accomplishing an objective. In this regard, a negative outcome would make sense. The perceptions of threats and emotional costs involve fear to demonstrate incompetence or negative results, and shame is an emotion aroused by negative outcomes. In consequence, negative perceptions about asking questions would lead to experience shame. Moreover, shame is influenced by the presence or the supposed negative thoughts of others. Specifically, worries about what others may be thinking respect the own poor achievement. Finally, as benefits are focused on improving the learning, not on avoiding obtaining negative

results; this could be the reason for the absence of a significant effect of benefits on shame. On the contrary, benefits may arouse positive emotions such as enjoyment or hope. Lastly, although it was not the objective of this study at first, it is worth mentioning the indirect considerable effect of the relationship between social academic self-efficacy and class shame, which highlights the social nature of the shame experienced in class.

Avoidance of Help-Seeking: Test-Criterion Evidence

Avoidance scale test-criterion evidence evaluated through path analysis was partially found as was expected. The social academic self-efficacy and task value negatively predicted avoidance, whereas performance-approach predicted it positively. Moreover, avoidance of help-seeking positively predicted shame, whereas social academic selfefficacy had an additional, direct effect on shame. In this way, the social academic self-efficacy would be associated to a decrease in avoidance behavior. The magnitude of this relationship gives support to the hypothesis about the relationship between confidence to perform academic social behavior and help-seeking in class. Although the magnitude of the relationship with task value is weaker than in social academic self-efficacy, this value equal to the one informed by Pajares et al. (2004). Additionally, data supported the hypothesis for the negative effect of social academic self-efficacy on shame, and reinforced the importance of this motivational construct in order to decrease concerns about negative images that students suppose are provoked in others by their own incompetence. On the other hand, the absence of the relation between masterly goals (focused in developing skills) with the avoidance, could be due to additional perceptions that students used to have about help-seeking. For some students, help-seeking could mean an affront to autonomy and self-stem. In this case, the students focused in learning will skip this beneficial behavior to learn, but harmful to competence-related perceptions (Pajares et al., 2004).

Lastly, and according to Pekrun (2006), shame is assumed to be induced if failure is judged to be caused by oneself, including attributions to one's own actions, attributes, and states as possible causes. This implies that shame can be instigated not only by the failure perceived as being due to uncontrollable internal causes (like lack of ability), but also by the failure due to controllable causes (e.g. lack of effort). In this regard, the need of help, implied on avoidance of help-seeking, could be perceived by oneself as evidence of incompetence and may provoke negative emotion reactions such as shame. In consequence, the finding for the effect of avoidance on shame supports the utility of avoidance of help-seeking scale.

In interpreting the study findings, it is important to consider its scope and limitations, and further studies should be addressed. In this study, the validated scales measuring benefits, threats, emotional costs and avoidance of helpseeking represent a contribution to the help-seeking research in Spanish-speaking populations. It is worth mentioning the use of confirmatory factor analysis in order to test the internal structure and the test-criterion validity accomplished by path analysis. Factor analysis can be applied in either an exploratory or a confirmatory fashion. Nonetheless, many advantages have been mentioned about the last one. Even more, the path analysis overcomes serious limitations of the bivariate correlations. For example, in confirmatory factor analysis and path analysis a clear a priori theoretical prediction about the constructs is made, and the hypothesized model is tested and either accepted or rejected. In consequence, much stronger inferences can be drawn from these models because of the a priori nature of the predictions (Curran, West & Finch, 1996). For these reasons, the two strategies overcome the habitual exploratory factor analysis or correlational methods reported in help-seeking literature (Pajares et al., 2004; Wolters et al., 2003), and represent a better approach to support validity. Even though Structural Equation Modeling is the most widely method used today, it requires multiple instruments that measure the same construct, but this research did not have such instruments. The Structural Equation Models have an advantage that by using multiple measurements to represent constructs, they permit the estimation of the effect of additional measurement error. This difference is important because it allows researchers to establish the construct validity of the latent variables (Weston & Gore, 2006). Future studies should provide multiple measurements and use Structural Equation Models.

The internal consistency values are optimum for scales of benefits and emotional costs, although acceptable for the threats scale, which would merit the addition of items or its reformulation, in order to improve internal consistency. This would take into account the ego-defensive reactions caused by one of the items (Help-seeking would mean that I am not as smart as the others students) that evokes a similar problem with an item eliminated from the benefits scale (I feel smart when I ask a question in this class). Added to this, reliability is a characteristic of scores from a specific sample of individuals who completed an instrument at a particular time in particular situations (Traub, 1994). In consequence, researchers should administer the scales and asses their internal consistency with the purpose of further testing their reliability in other student populations (Wilkinson, & APA Task Force on Statistical Inference, 1999).

Also, gender differences are an important aspect not addressed in this research. Sánchez Rosas (2013) found unfavorable differences for women in social academic self-efficacy, benefits of the help-seeking, along with more frequent experiences of emotional costs of help-seeking. Added to this, several studies were consistent in showing that women experience shame in class more frequently (González, Donolo & Rinaudo, 2009; Pekrun et al, 2011; Sánchez Rosas, 2013). Accordingly, analyzing the internal structure of the scales measuring academic helpseeking, relations between academic help-seeking, social academic self-efficacy and shame, should consider gender differences. Although the gender distribution is common in the sampled careers, the sample used had a strong presence of women and an insufficient number of men. Future research should ensure the minimum sample sizes and multigroup confirmatory factor analyses should also be conducted to further establish that the scales demonstrate factorial invariance across groups (Sass, 2011).

Finally, the findings might not be generalizable to all Spanish-speaking population of other countries different from Argentina. Also, psychometric analyses of the scales were carried out on a sample of Argentinean university students in class. Although this study has laid a foundation for studies in Argentinean university students, further studies could validate this scales across different age group, Spanish-speaking population and settings.

Beyond these issues, reported results provide satisfactory evidence of the structural validity, the internal consistency, and the test-criterion validity of the benefits, threats, emotional costs and avoidance of help-seeking scales.

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