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Psychometric parameters of the attitude/motivation test battery instrument in a mexican environment

Michaela Cocca*, José Alberto Pérez García*, Jorge Isabel Zamarripa*, Yolanda Demetriou**, Armando Cocca*

PSYCHOMETRIC PARAMETERS OF THE ATTITUDE/MOTIVATION TEST BATTERY INSTRUMENT IN A MEXICAN ENVIRONMENT

KEYWORDS: Attitude, English, Motivation, Second Language, University Students.

ABSTRACT: In the last decades, research in the field of language learning has focused on understanding the motivational processes beneath people's interest in studying a second language (L2). For this reason, the attitude/motivation test battery (AMTB) was created in order to assess motivation towards L2. This questionnaire was adapted to the Mexican environment, nevertheless no validation process was carried out. The aim of this study was to assess the validity of the Mexican version of AMTB. A sample of 252 University students filled in the questionnaire. After removing 11 items, the instrument showed high internal validity and suitable factorial structure. The final version of the Mexican AMTB, composed by 43 items distributed into 9 dimensions, can be considered a proper instrument for assessing motivation towards L2 in Mexican students.

According to social-cognitive theories, motivation is a psychological construct linked to individuals' expectations and beliefs about their life events. Gardner (2010) defined motivation as people's effort and eagerness to achieve an established goal. Moreover, he added that it also affects persistency, willpower, and even the enjoyment that people feel while trying to reach those goals. In addition, motivation has been associated with people's perception of tasks difficulty and their possible outcomes (Wigfield and Eccles, 2000). In recent years, this concept was studied and developed through several theoretical models. One of them was developed by Gardner (2010), who recognized motivation as a joint of external and internal forces determining the beginning, direction, intensity and persistence of a certain behavior (Deci and Ryan, 2008; Shigaki et al., 2010).

The importance of motivation and attitudes both in the area of scientific research and professional practices is well known. For this reason, researchers and professors in the field of second language (L2) learning have recently focused their attention towards the influence of these constructs on learning processes oriented to increasing knowledge and skills in L2 (Bernardo, Amerigo and García, 2014; Papi and Teimouri, 2014; Waninge, Dornyei and De Bot, 2014). Due to the strong relation between learning a language used by a foreign community and students' social disposition towards that community, the main focus of the research on motivation in L2 learning was based on social psychology (Coffey, 2013; Mystkowska-Wiertelak and Bielak, 2014). In accordance with studies in this research line, motivation towards languages can be considered as the natural internal force that drives individuals to put effort, desire, and a positive attitude

into the process of learning them (Gardner, 2006). Authors have recognized two main components of motivation towards L2 learning: integrative and instrumental (Carrio-Pastor and Mestre, 2014; Chung, 2013; Quan, 2014). Integrative motivation reflects the will and eagerness to integrate oneself into a community in which a different language is spoken. Also, it describes people's willingness to communicate with others within a different community, as well as their interest and positive attitude towards the mentioned community (Gardner, 1985). Instrumental motivation represents individuals' external needs that can be satisfied by means of learning a new language, such as moving up to a higher social status, reaching better socioeconomic condition, or any other practical benefits for one's life (Johnson, 2001).

Responding to the need for research on the motivational processes determining engagement, will power, and enjoyment of learning L2, authors have created specific instruments for measuring this variable and its influence on the teaching-learning dynamics in L2. Amongst these instruments, the Attitude/Motivation Test Battery (AMTB; Gardner, 1985) is one of the most known. Gardner designed this tool with the aim of analyzing linguistic and non-linguistic goals that people try to accomplish by learning L2. For instance, this instrument focuses on individuals' eagerness to understand a different community, or their interest in acquiring skills in a language that is different than their native one. The original version of AMTB, including 109 items with Likert-type scale, targeted English residents in French communities in Canada. A major problem of this instrument was its excessive extension, which forced participants

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to maintain their attention on for long periods of time in order to answer all of the items. For this reason, a 54-item mini version (S-AMTB) was proposed by Gardner and MacIntyre (1993). Many authors adapted and used S-AMTB in different cultural and social environments with the aim of studying the motivational and attitudinal causes of learning L2 (Atay and Kurt, 2010; Bernaus and Gardner, 2008; Restorick, Elordi, Olazar, Tennant and Barona, 2011; Samad, Etemadzadeh and Far, 2012). Aiming to use the S-AMTB in Mexican contexts, Sandoval Pineda (2011) carried out an adaptation of the questionnaire focusing on Mexicans' motivation towards learning English. The Mexican version of S-AMTB proposed by this author consists of nine dimensions:

1. Interest towards foreign languages: it describes people's enjoyment towards learning a foreign language. It represents the intrinsic desire of learning it, based on enjoyment more than usefulness. A sample item is: *Me gustaría hablar muchos idiomas perfectamente (I would love to speak perfectly many languages).*

2. Intensity of motivation: focusing on individuals' will power in studying L2. It indicates the extent of the effort people put into improving in L2. A sample item is: *Pongo mucha atención para tratar de entender todo el inglés que veo y escucho (I put a lot of effort in trying to understand when I watch or listen to something/someone in English).*

3. Evaluation of English teaching: this dimension describes students' perception of the English classes, including teachers' abilities and skills both in the way of teaching and in creating a positive learning climate. A sample item is: *Me gusta mucho ir a mi clase de inglés porque mi maestro/a es muy bueno para enseñar su materia (I really enjoy participating in my English course because the teacher is very good at teaching the subject).*

4. Attitude towards learning English: this assesses students' disposition towards English. It provides us with information about students' real approach to studying English. A sample item is: *Me encanta aprender inglés (I love learning English).*

5. Attitude towards native English-speakers: this dimension investigates people's posture towards natives from English-speaking countries, which could represent a barrier for starting studying L2 due to historical or cultural biases. A sample item is: *Entre más conozco a personas angloparlantes, más me agradan (The more English-speaking persons I meet, the more I like them).*

6. Integrative orientation: this points out the importance individuals attribute to English with the aim of enhancing their personal relations and their overall culture. It stresses out if people regard learning English as valuable in order to raise their social life. A sample item is: *Estudiar el inglés es importante porque me permitiría entender y apreciar mejor la cultura angloparlante (Studying English is important because it allows me to better understand and value English-speaking culture).*

7. Will to learn English: individuals with high scores in this dimension are eager to learn English and usually intend to achieve the highest knowledge of this language. A sample item is: *Me gustaría dominar el inglés (I would love to master English).*

8. Evaluation of the English course: it describes students' perception of the classes they are attending, focusing mainly on the motivational climate and how this influences their decision to continue studying English in the future. A sample item is: *Me gusta tanto la clase de inglés que quiero seguir estudiando esta lengua en el futuro (I like the English course so much to the point that I want to keep studying this language in the future).*

9. Instrumental orientation: it identifies the extrinsic motivation towards learning English, based on how this language could help individuals enhance their life in a practical way. This dimension describes how useful students consider English for their professional improvement and for their social status. A sample item is: *Estudiar inglés es importante porque la gente me respetaría más si domino esta lengua (Studying English is important because people would respect me more if I mastered that language).*

In her dissertation, Sandoval Pineda (2011) carried out a process of cultural adaptation and translation of the instrument, as well as a pilot study with 39 Mexican university students. Maintaining the original structure of S-AMTB proposed by Gardner and MacIntyre (1993), the author studied the internal consistency of the questionnaire obtaining acceptable values of Cronbach's alpha for each of the dimensions described ($.69 < \alpha < .89$). However, two weak points can be stressed in this process. Firstly, the small sample size selected cannot fully support consistency of the tool. Secondly, factorial and structural validity were not assessed. Thus, an important aspect of the validation process is required if we aim to corroborate S-AMTB suitability within Mexican communities. For this reason, the aim of this study is to validate the Mexican version of S-AMTB in a population of Mexican young adults; and to assess the relation between the dimensions of the above-mentioned instrument.

Method

The design of this study is quantitative, non-experimental with observational character.

Participants

The sample was selected from the population of University students enrolled in the bachelor program offered at the Faculty of Sports Organization (FOD) of the Autonomous University of Nuevo Leon (UANL), Mexico. We decided to keep a fixed environment in order to avoid measurement errors originated in choosing participants enrolled in a variety of English courses differing from each other by type, approach, teaching-learning strategy, materials, didactical planning, etcetera. In fact, this could have affected the reliability of participants' responses for the dimensions of *Evaluation of English teaching and Evaluation of the English course*. Thus, the final sample was composed by 242 students (191 men, 51 women; $M_{age} = 19.31 \pm .894$) attending second to sixth semester at FOD. Table 1 shows detailed demographic information on the participants. First semester students were excluded from the study as they had not yet enrolled in the English courses offered by FOD. Selection was carried out using a sampling technique based on stratification and proportional affixation with 95% confidence level and relative standard error of 2.17%. Strata were represented by semester and gender, whose proportions were kept in the final sample. All participants were asked to sign an informed consent.

Measures

The Mexican version of S-AMTB was used (Sandoval Pineda, 2011). This version of the questionnaire is composed by 56 items distributed into nine dimensions, as previously mentioned. A Likert-type scale from total disagreement (1) to total agreement (7) was used. This questionnaire measures different aspects of motivation and attitudes towards learning L2, with the main focus on English as a second language.

Semester	Gender	n	Age
Second	Male	61	18.33 ± 0.707
	Female	18	18.32 ± 0.724
	Total	79	18.33 ± 0.712
Third	Male	48	18.83 ± 0.994
	Female	12	18.91 ± 0.865
	Total	60	18.87 ± 0.904
Fourth	Male	41	19.41 ± 0.899
	Female	9	19.37 ± 0.976
	Total	50	19.39 ± 0.927
Fifth	Male	27	19.87 ± 0.963
	Female	7	19.62 ± 1.023
	Total	34	19.74 ± 1.002
Sixth	Male	14	19.92 ± 0.900
	Female	5	20.57 ± 0.938
	Total	19	20.27 ± 0.962
Total	Male	191	19.27 ± 0.883
	Female	51	19.35 ± 0.911
	Total	242	19.31 ± 0.894

Table 1. Demographic information of the sample.

Procedures

Students selected for the study were asked to fill in the S-AMTB questionnaire during the last week of the academic semester. Surveys were applied in the classrooms, at the end of the lessons, in order to not affect the development of the regular teaching-learning process at FOD.

Analysis

We used several analyses in order to confirm the validity of the questionnaire both in terms of internal structure and reliability of the instrument. Firstly, reliability analysis was carried out by means of Cronbach's Alpha and McDonald's Omega, which were applied to each dimension separately. Further, we evaluated the homogeneity index corrected by item, both for the questionnaire as a whole and for each dimension individually. This analysis was carried out by studying Pearson's correlation coefficients between each item and the sum of the scores from the other items. Structural validity of the questionnaire was verified by means of Exploratory (EFA) and Confirmatory Factorial Analysis (CFA). These analyses were then used to verify factor saturations of the items in each dimension and crosscheck the results with those from reliability analysis. In addition to this, CFA was employed to test a model composed by nine separate dimensions as the final version of the questionnaire. Due to the fact that our sample size did not allow us to employ Weighted Least Squares (WLS), Maximum Likelihood (ML) estimation method was run using polychoric matrix and synoptic covariances in order to correct the lack of normality of items. Based on Gardner's model, we did not hypothesize relations between the different dimensions. LISREL 8.80 and SPSS 22.0 statistical packages were used for the analysis.

Results

Internal consistency of the questionnaire was tested calculating Cronbach's Alpha and McDonald's Omega for each dimension of the instrument separately. The analysis included calculation of the Alpha values excluding each item individually. This method is used to find incongruent items whose exclusion could increase the overall reliability of the instrument's dimensions. The analysis highlighted the presence of conflicting items due to the fact that reliability would be higher if they were removed. In addition, confirmatory factorial analysis and correlational analysis were run for each of the original dimensions of the questionnaire in order to better evaluate the conflicting items previously detected. At the end of this process, items four (*If Mexico had not been close to an English-speaking country, it would have been a huge loss for our country*), 13 (*Most of the English-speaking persons are friendly and it is easy to get along with them, so I feel that we are really lucky to have them as our neighbors*), 20 (*I would really love to learn many foreign languages*), 42 (*The more English-speaking persons I know, the more I like them*), 46 (*You can always trust English-speaking persons*) and 47 (*I have a natural gift for learning English*) from the first section of the original instrument were removed due to low saturations (saturation < .313) and non-significant correlations ($p > .05$). In addition, items one (*The motivation I have toward learning English with the aim to communicate with people speaking this language is high*), two (*The attitude I have towards English speakers is favorable*), three (*The interest I have toward foreign languages is high*), five (*The attitude I have toward learning English is favorable*), seven (*The motivation I have toward learning English for practical reasons – such as obtaining a good job, higher salary, better grades... – is high*),

eight (*The attitude I have toward my English course is favorable*) and nine (*The motivation I have toward learning English is high*) from the second section were also removed due to low saturations (saturation < .289). As a result, the reliability of each dimension was found to be higher. Table 2 shows the reliability scores for each of the nine dimensions of the instrument after removing the incongruent items, as well as correlation coefficients between the questionnaire's dimensions.

Successively, factorial analysis based on maximum likelihood was run in order to endorse the internal structure of the questionnaire. Kaiser-Meyer-Olkin test (KMO = .961) and

Bartlett's Test of Sphericity ($\chi^2 = 9157.87$; $df = 1035$; $p < .001$) verified the suitability of the use of this analysis for the instrument. The 9-dimension structure was confirmed and multiple indexes of goodness of fit were calculated, which included chi square divided by the degrees of freedom ($\chi^2 = 1421.369$; $df = 824$; $\chi^2/df = 1.7$), Root Mean Square Error of Approximation (RMSEA = .055), Non-Normed Fit Index (NNFI = .988), and Comparative Fit Index (CFI = .989). All estimated factor saturations for the final version of the questionnaire were statistically significant ($p < .001$). Descriptive information and factor saturations for each item of the final version are presented in table 3 below.

	α	ω	2	3	4	5	6	7	8	9
1. Interest in foreign language (IFL)	.90	.82	.75*	.63*	.87*	.79*	.91*	.84*	.73*	.81*
2. Motivation Intensity (MI)	.89	.85		.75*	.94*	.77*	.79*	.83*	.90*	.84*
3. Teachers' Evaluation (TE)	.86	.89			.74*	.73*	.65*	.66*	.80*	.65*
4. Attitude towards learning (ATL)	.89	.91				.85*	.91*	.97*	.93*	.89*
5. Attitude towards English people (ATEP)	.91	.86					.89*	.81*	.77*	.82*
6. Integrative Orientation (IGO)	.88	.89						.92*	.74*	.99*
7. Desire of Learning English (DLE)	.88	.90							.82*	.87*
8. English Course Evaluation (ECE)	.89	.90								.73*
9. Instrumental Orientation (IMO)	.91	.85								

Note. α = alpha Cronbach's; ω = McDonald's coefficient. Correlation scores between dimensions, obtained from Confirmatory Factorial Analysis, above the diagonal. * $p < .001$.

Table 2. Cronbach's alpha and correlations of the subscales of the Mexican mini-Attitude/Motivation Test Battery.

Discusión

The aim of our study was to assess the validity of the Mexican version of the S-AMTB, a questionnaire used to measure motivation towards learning a second language. The final version of the questionnaire, composed by 43 items divided into 9 dimensions, obtained high reliability as well as appropriate structural validity.

As regard to reliability, values above .70 are usually considered acceptable, while .80 is considered a good value and .90 excellent (George and Mallery, 2003). Though the initial reliability value obtained for the instrument in this study was already excellent, we decided to drop 11 items. This is due to the fact that they showed low scores in different analyses, as mentioned above. Furthermore, although the S-AMTB represented an already shortened version of the original questionnaire, it was still composed by 56 items. Thus, reducing the total amount of items not only improved the instrument's overall reliability and items' saturations and correlations, but also set up an even shorter questionnaire, affecting positively research costs and practical issues related to completing it. In fact, the length of a questionnaire can influence response rates, participants' concentration, quality of response, or even willingness to participate (Hugick and Best, 2008; Shalqvist et al., 2011). This assumption is also supported by Chlan (2004), who points to a significant association between response burden and length of questionnaire, suggesting that shorter questionnaires may reduce this burden and increase instruments' reliability. These arguments were confirmed by Galesic and Bosnjak (2009), who found out that longer questionnaires were associated with burn-out. In addition, they underlined that answers to questions positioned later are faster, shorter and more uniformed.

The structure of the questionnaire was found to be appropriate, as the indexes of goodness of fit confirm. In fact, according to Carmines and McIver (1981), a χ^2/df ratio lower than three denotes a good model adjustment. Also, CFI and NNFI scores above .90 imply a suitable model (Hu and Bentler, 1995). Moreover, RMSEA scores between .05 and .10 are considered a positive sign of structure validity, even more when these scores are below .08 (Cole and Maxwell, 1985). Based on this literature, the results we obtained from the structural analysis confirm the structural validity of the final instrument.

Our results are similar to those obtained by Atay and Kurt (2010), who adapted and validated Gardner's questionnaire in a Turkish environment. These authors suggest a 12-dimension structure that comprised of the nine dimensions of our version plus two dimensions on learning anxiety and one on parental support to learning, all obtaining high reliability scores and suitable factor loadings. However, the three above-mentioned extra dimensions were not considered in our research, in accordance with Dörnyei's (2001) suggestions on the adaptation of AMTB to different environments. In fact, the author recommends: (a) not to include parental influence in case the recruited participants are 18 or older; and (b) to avoid using anxiety-related dimensions if anxiety is not included as a research objective. In our study, all our participants complied with the criterion (a), whereas Atay and Kunt selected a sample of adolescents.

A Catalan version of S-AMTB (Bernaus and Gardner, 2008) was adapted into 12 items, each of which represented one of the dimensions originally present in the questionnaire (the nine presented in this study, plus two on learning anxiety and one on parental support). Due to the shortness of that version, items were grouped to create six dimensions: *integrativeness*, including

No Items	Mean	SD	Skewness	Kurtosis	Factor loadings
Interés en lenguajes extranjeros					
1 Me gustaría hablar muchos idiomas perfectamente	5.79	.095	-1.24	1.14	.732
9 Desearía poder leer periódicos, libros y revistas en muchas otras lenguas	5.53	.097	-1.045	.742	.763
27 Si yo tuviera planes de vivir en otro país, trataría de aprender la lengua que se habla allá	6.49	.075	-3.141	10.817	.633
36 Me gusta mucho conocer gente que habla otras lenguas	5.10	.104	-.695	.063	.767
Intensidad de la motivación					
6 Pongo mucha atención para tratar de entender todo el Inglés que veo y escucho	5.63	.086	-1.380	2.361	.761
14 Me mantengo al corriente con mis clases de Inglés trabajando a diario en ellas	4.38	.096	-.159	-.379	.634
24 Cuando tengo problemas para entender algo en mi clase de Inglés, siempre le pido ayuda a mi maestro/a	5.84	.093	-1.538	2.248	.592
33 Yo realmente pongo mucho empeño en aprender Inglés	6.12	.082	-1.974	4.590	.866
40 Cuando estoy estudiando Inglés ignoro las distracciones y le pongo atención a la actividad que estoy realizando	5.26	.092	-.719	.393	.791
Evaluación de los maestros					
2 Me gusta mucho ir a mi clase de Inglés porque mi maestro/a es muy bueno/a para enseñar su materia	5.10	.084	-.301	-.040	.693
10 Mi maestro/a de Inglés es mejor que cualquiera de mis otros/as maestros/as	4.27	.077	-.220	1.244	.676
18 Mi maestro/a de Inglés tiene un estilo de enseñanza dinámico e interesante	4.29	.088	-.215	.215	.789
28 Mi maestro/a de Inglés es una gran fuente de inspiración para mí	5.24	.092	-.547	-.230	.824
37 Me cae muy bien mi maestro/a de Inglés	5.15	.088	-.904	1.088	.871
43 La opinión que tengo hacia mi maestro/a de Inglés es favorable	4.98	.091	-.631	.161	.675
Actitud hacia el aprendizaje del Inglés					
3 Estudiar Inglés es fabuloso	5.15	.100	-.710	.146	.798
11 Realmente disfruto aprender Inglés	5.25	.092	-.813	.560	.857
19 La clase de Inglés es una parte muy importante del programa de estudio en mi carrera	5.69	.095	-1.127	.839	.766
29 Quiero aprender tanto Inglés como me sea posible	6.31	.075	-2.287	6.220	.857
38 Me encanta aprender Inglés	5.45	.088	-.862	.771	.840
Actitud hacia las personas de madre lengua inglesa					
16 Desearía tener a muchos hablantes nativos del Inglés como amigos	5.69	.102	-1.451	1.733	.826
20 Los hablantes nativos del Inglés son muy amables y sociables	4.95	.089	-.445	.125	.739
23 Los hablantes nativos del Inglés tienen mucho que sentirse orgullosos porque han hecho contribuciones valiosas para el mundo	5.57	.090	-1.151	1.511	.688
30 Me gustaría conocer a más hablantes nativos del Inglés	4.71	.088	-.442	.488	.840
Orientación Integrativa					
4 Estudiar Inglés es importante porque me permitirá sentirme cómodo/a cuando me relacione con personas que hablen Inglés	6.32	.082	-2.665	7.763	.719
12 Siento que estudiar Inglés es importante porque me permitiría comunicarme con un número mayor de personas de diferentes culturas en el mundo	4.62	.091	-.342	.121	.887
21 Estudiar Inglés es importante porque me permitiría entender y apreciar mejor la cultura angloparlante	6.06	.078	-1.741	3.897	.790
31 Es importante estudiar Inglés porque tendré la oportunidad de interactuar más fácilmente con gente que habla esa lengua	6.02	.088	-1.801	3.516	.865
Deseo de aprender Inglés					
5 Siento un fuerte deseo por conocer todos los aspectos de la lengua inglesa	5.36	.092	-.857	.156	.789
13 Si por mí fuera, me pasaría todo el tiempo aprendiendo Inglés	6.26	.084	-2.431	6.359	.644
22 Quiero aprender el Inglés tan bien hasta que parezca mi lengua materna	4.80	.086	-.214	.107	.840
32 Me gustaría aprender tanto Inglés como me sea posible	5.42	.088	-.775	.588	.887
39 Me gustaría dominar el Inglés	5.05	.093	-.503	.059	.809
42 El deseo que tengo de aprender Inglés es alto	6.14	.087	-2.304	4.368	.709
Evaluación del curso de Inglés					
8 Preferiría pasar más tiempo en mi clase de Inglés que en otras clases	4.36	.092	-.215	-.039	.740
17 Disfruto las actividades de mis clases de Inglés más que las de las otras clases	5.17	.094	-.689	.400	.697
26 Me gusta tanto la clase de Inglés que quiero seguir estudiando esta lengua en el futuro	5.40	.091	-.849	.511	.831
35 Disfruto mis clases de Inglés	5.38	.091	-.923	.842	.855
41 La clase de Inglés es una de mis favoritas	5.01	.084	-.223	.156	.893
Orientación Instrumental					
7 Estudiar Inglés es importante porque lo necesitaré en mi desempeño profesional	6.51	.078	-3.193	10.276	.948
15 Estudiar Inglés es importante porque es indispensable para que uno sea reconocido como una persona con educación	4.82	.093	-.442	.041	.673
25 Estudiar Inglés es importante porque me será útil para obtener un buen empleo	4.90	.097	-.521	.097	.869
34 Estudiar Inglés es importante porque la gente me respetará más si domino esta lengua	5.96	.092	-1.713	2.975	.512

Note. No. = number; *M* = mean; *SD* = standard deviation. All factor loadings were significant ($p < .05$).

Table 3. Descriptive statistics and factor loadings for all the Attitude/Motivation Test Battery items.

ATEP, IFL, and IGO; *attitude towards the learning situation*, comprised of TE and ECE; *Motivation*, which included MI, DLE, and ATL; *instrumental orientation*, composed of a single item; *language anxiety*; and *parental encouragement*. It must be underlined that, though Bernaus and Gardner's adaptation was employed in a study, no validation process was presented. Other studies present a variety of adaptations (Dordi-nezhad, 2015; Restorick et al., 2011; Samad et al., 2012), emphasizing the influence of cultural characteristics and the need for context-specific validations of the presented instrument (Dörnyei, 2001).

In conclusion, our outcomes show that the final version of the Mexican S-AMTB, composed by a single section of 43 items divided into nine dimensions, represents a suitable instrument for assessing students' motivation towards learning English as a

second language in Mexican communities. In the future, we recommend widening the research in order to assess the instrument's invariance by gender, age range or English skills level, which could strongly contribute confirming the contextual validity of Mexican S-AMTB.

In the future, we recommend to test the instrument's invariance by gender and in diverse populations within Mexico, such as workers or younger students. In fact, their attitude towards learning can be significantly different and consequently it could determine the need for adaptations or the creation of structural variants of the battery. Also, we suggest to increase the sample size, which was a limitation of our study that depended on the need to avoid nuisance variables such as different educational background related to learning English.

PROPIEDADES PSICOMÉTRICAS DE LA BATERÍA DE TEST DE ACTITUD/MOTIVACIÓN EN EL CONTEXTO MEXICANO

PALABRAS CLAVE: Actitud, Inglés, Motivación, Segundo Idioma, Alumnos Universitarios.

RESUMEN: En las últimas décadas, la investigación en el área del aprendizaje de idiomas se ha enfocado en los procesos motivacionales que mueven a las personas hacia el estudio de un segundo idioma (L2). Así pues, la Batería de Test de Actitud/motivación (AMTB) fue creada para medir la motivación hacia L2. Este cuestionario fue adaptado al entorno mexicano. No obstante, carece de proceso de validación científica. El propósito de esta investigación fue validar la versión mexicana del AMTB. Una muestra de 252 estudiantes universitarios cumplimentó el cuestionario. Tras la eliminación de 11 ítems, el instrumento mostró altos valores de validez interna y una estructura factorial apropiada. La versión mexicana final del AMTB, compuesta por 43 ítems divididos en nueve dimensiones, puede ser considerada un instrumento apropiado para medir la motivación de estudiantes mexicanos hacia el aprendizaje de L2.

PARÂMETROS PSICOMÉTRICOS DO INSTRUMENTO BATERIA DE TESTES ATITUDE / MOTIVAÇÃO EM UM AMBIENTE MEXICANO

PALAVRAS CHAVE: Atitude, Inglês, Motivação, Segunda Língua, estudantes universitários.

RESUMO: Nas últimas décadas, a pesquisa na área da aprendizagem de línguas tem se concentrado nos processos motivacionais que levam as pessoas para o estudo de uma segunda língua (L2). Assim, a bateria de testes atitude / motivação (AMTB) foi criada para medir a motivação para L2. Este questionário foi adaptado para o ambiente mexicano. No entanto, ela não tem processo de validação científica. O objetivo desta pesquisa foi validar a versão mexicana da AMTB. Uma amostra de 252 estudantes universitários completaram o questionário. Após a remoção de 11 itens, o instrumento mostrou valores elevados de validade interna e uma estrutura de fatorial adequada. A versão final mexicana AMTB, composto por 43 itens divididos em nove dimensões, pode ser considerado um instrumento adequado para medir a motivação estudantes mexicanos dirigido para a aprender L2.

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