PERCEIVED SELF-EFFICACY IN THE SOCIOCULTURAL SPHERE WITH MEXICAN UNIVERSITY STUDENTS. DIFFERENCES BETWEEN MEN AND WOMEN

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Abstract

The aim of the present study was to compare the profiles of perceived self-efficacy in the sociocultural sphere between men and women university students. A total sample of 2,089 participants, 902 women and 1,187 men (average age = 18.23 ± .74 years) participated in this study. A quantitative approach with a descriptive and transversal survey design was applied. The results of the one-way multivariate analysis of variance, followed by the one-way univariate analyses of variance, showed that women reported statistically significant higher punctuations than men regarding the perceived self-efficacy in the promotion of culture and cultural identity ($p < .001$). Therefore, gender is an important variable when designing any kind of intervention for improving the perceived self-efficacy of students in a sociocultural sphere. Future research should apply these findings within other cultures.

Keywords: Student's beliefs, Gender differences, Higher education, Academic performance, Students characteristics

Introduction

The beliefs of people about themselves are crucial for personal controlling and competence in troubling situations, challenges, and the decisions they make during their lives. Among these beliefs, self-efficacy is very important when individuals are in contact with their environment.

The term of self-efficacy could be defined as the judgment that every individual makes about their own capacities, being the foundation for the organization and execution of their way of acting when pursuing a desired performance (Bandura, 1997). Blanco, Martínez, Ornelas, Flores, and Peinado (2011) also define self-efficacy as the beliefs of a person about his/her capacities that allow him/her to organize and execute the required ways of acting in expected situations or based on performance levels.

The application of Bandura's theory in the educational setting shows how students with high expectations of self-efficacy also have higher academic motivation (Brown Tramayne, Hoxha, Telander, & Lent, 2008; Caprara et al. 2008). These students also obtain better academic results, are able to effectively self-regulate their learning, show more intrinsic motivation in the learning process, and will be more persistent within difficult tasks set before them, working harder than students who have doubts about their capacities (Bandura, 1997; Cartagena, 2008; Salanova, Llorens & Shaufeli, 2011). Consequently, the improvement of the self-efficacy expectations increases the motivation and the performance of learning tasks (Adeyemo, 2007). Therefore, it is not enough just being able to do something, but necessary to feel able to do it him/herself. Self-efficacy supposes the ability of a person to use their personal abilities and skills in different situations, even with emotional reactions that are experienced in troubling environments (Blanco, Martínez, Zueck, & Gastelum, 2011).

As an indication of the importance of self-efficacy in the academic context, it is revealed why people with the same level of ability and knowledge show different behaviors and academic results, and why persons act in dissonance with their abilities (Bandura, 1982; Pérez et al., 2011). This could be explained because the academic performance also depends on the preceived self-effecacy and the preceived capacity for being successful in academic tasks. Therefore, students that are confident in their capacities, feel themselves more motivated to reach their goals (Blanco, 2010; Rodríguez, 2009). Similarly, persons who doubt their capacities may believe that things are more difficult that they really are, a belief that generates tension, depression, and a narrow view of their capacity for solving problems (Vera, Salanova & Martín-del-Río, 2011). It is stated that a low level of self-efficacy may be responsible not only for the decrease of school performance and the interest in schoolwork, but also for youth misconducts (Zimmerman & Kitsantas, 2005). For this reason, education is crucial for the development of the students' academic competency, as well as promoting the abilities that allow students to believe in their own capacities (Carbonero & Merino, 2008; Ornelas, Blanco, Rodríguez, & Flores, 2011).

The beliefs that persons have about themselves represent a determining factor for achieving activity goals and the decision-making

process they face as they go through life. The more self-efficacy perceived, the more effort applied and the more persistency on the accomplishment of the proposed goal increases. Therefore, self-efficacy is a crucial factor for a successful learning process (Bandura, 1997; Ornelas, Blanco, Gastélum, & Chávez, 2012; Schmidt, Messoulam, & Molina, 2008).

Motivation drives human beings to undertake specific conducts depending on the goals they try to achieve. Knowing the aim clearly, or which is the best way to achieve it is not enough to accomplish our goal. It is not enough to be able to do it, but we need to feel able to use our personal capacities and abilities in a great variety of circumstances. Peoples' perceptions of their own efficacy rises up as a crucial requirement for the successful development of the actions directed toward the realizing of personal objectives. This self-perception, called self-efficacy, has a great influence on the choice of tasks and activities, on the effort and the perseverance of people when faced with particular challenges, and even in the emotional reactions that they experience in difficult situations (León-Rubio, Cantero, & León-Pérez, 2011; Pérez et al., 2011; Wolters, 2004). In short, self-efficacy beliefs represent a cognitive mechanism that is halfway between knowledge and action, and that determines together with other variables the success of an action (Castañeda, Pineda, Gutiérrez, Romero, & Peñalosa 2010; Pérez et al., 2011; Sansinenea et al., 2008; Zimmerman, & Kitsantas, 2005).

For all the above-mentioned reasons, it can be concluded that perceived self-efficacy has a vital role in the school environment, hence a good academic performance cannot be guaranteed only by the knowledge and the ability of individuals. The beliefs of efficacy can determine a different performance in two persons with the same level of ability. This is because successful academics demand regulational processes such as self-evaluation, self-monitoring, and the use of metacognitional learning strategies. These processes are positively influenced by a high level of believe in one's own capacity or self-efficacy (Wolters, 2004).

Unfortunately, to our knowledge there are no studies examining the influence of gender in the perceived self-efficacy in culture promotion and culture identity in Mexico. Consequently, the purpose of the present study was to compare the profiles of perceived self-efficacy in culture promotion and culture identity between male and female university students. The results of the present study might provide knowledge that will help educators to promote educational interventions taking into account the students diversity.

Method:

Participants and design

A sample of 2,089 university students, 902 women and 1,187 men, aged 17-20 years (M = 18.23; SD = .74) participated in the present study. The sample comprised all the freshmen university students from each degree offered by the Autonomous University of Chihuahua (Mexico). A convenience sampling was used in order to try to equally represent of all the degrees (Table 1). Regarding the design of the study, a quantitative approach with a descriptive and transversal survey design was used (Hernández, Fernández, & Baptista, 2010). The independent variable was gender (women and men) and the dependent variables were the mean scores in the four scenarios in both the promotion of culture and cultural identity.

Table 1. Distribution of the participants according to the subject and gender categories

Subject	Women	Men	Total
Physical education	81	214	295
Education and Humanities	96	72	168
Health sciences	121	108	229
Social and administrative sciences	176	124	300
Political sciences	200	89	289
Engineering and Technology	143	449	592
Agricultural sciences	85	131	216
Total	902	1,187	2,089

Instruments

The self-efficacy in the promotion of culture and cultural identity was measured by the *Self-efficacy in the Sociocultural Sphere Scale* (Muñoz, Zueck, Gastelum, & Guedea, 2012). This questionnaire consists of a nine-item scale with two subscales: promotion of the culture (six items) and cultural identity (three items). According to previous studies (Blanco, Martínez, Zueck, & Gastélum, 2011; Viciana, Cervello, & Ramirez, 2007), due to the fact that in the Mexican academic context students are commonly assessed by a scale from 0 to 10, a Likert-type scale from 0 to 10 was chosen for the present study. For each domain (item) of the promotion of culture and cultural identity (subscales), the participants were asked about how capable they feel, how much interest they have, and if they would make an effort to change how capable they will be to... Therefore, all the participants responded to each of the nine items (Table 2) of the questionnaire in the three different scenarios: (a) *Scenario of perceived ability*, responding in the context of "how capable I feel to… to manage in each of the domains of the above mentioned competences"; (b) *Scenario of interest in being able*, responding in the context of "how much interest I have in being able to... to manage in each of the domains of the above mentioned competences"; and (c) *Scenario of* change *to be able to*, responding to the context of "if I would

make an effort to change, how capable I will be to be able to... to manage in each of the domains of the above mentioned competences".

Table 2. Items of the Self-Efficacy in Sociocultural Scale grouped by factors

Factor	Item
Promotion of the culture	1. Participate actively in creational processes, conservation and cultural diffusion
	5. Analyze the phenomena of globalization and sustainable development from different perspectives
	6. Generate an interaction with the environment, fostering the community level
	7. Participate in proposals that contribute to development, and social and cultural improvement
	8. Interact with different social groups fostering the quality of life
	9. Act like a promoter of the quality of life
Cultural Identity	2. Act with respect and tolerance
	3. Demonstrate values before different costumes and differences and toward the multicultural
	4. Identify myself with the culture of my state and country

When calculating the scores for both dimensions of the promotion of culture and cultural identity, four different values were calculated: (1) Perceived *self-efficacy*, obtained from the average scores in the scenario of perceived ability; (2) *Desired self-efficacy*, calculated from the average scores in the scenario of the interest of being able to perform the task; (3) *Reachable self-efficacy*, obtained from the mean scores in the scenario of being able to perform the task; and (4) *Possibility of improvement in the perceived self-efficacy*, calculated from the mean difference between reachable self-efficacy and perceived self-efficacy. A higher score indicates greater self-efficacy, whereas a lower score represents lesser self-determination. The *Self- efficacy in the Sociocultural Sphere Scale* demonstrated adequate psychometric properties (GFI = .928; RMSEA = .099; Cronbach coefficient alphas = .896 and .726 for the promotion of culture and cultural identity, respectively) (Elosua & Zumbo, 2008; Muñoz et al., 2012; Thompson, 2004).

Procedure

All the freshmen university students from each degree offered by the Autonomous University of Chihuahua in the January-June semester of 2012 were invited to participate in the present study. These university students were fully informed of all the features of the project. Then, all the students that had agreed to participate were asked to sign a written informed consent. After the students' approvals were obtained, participants completed the above-mentioned questionnaire by means of the instrument module administrator of the *Scales Editor Version 2.0* (Blanco et al., 2013).

Participants completed the questionnaire in the computer rooms of their faculties during a session. At the beginning of the session the

researchers gave a general introduction about the importance of the research and how to access the questionnaire through using the software. When the participants were in the Scales Editor, the instructions about how to fill out the questionnaire correctly appeared before the questions start. Additionally, the participants were advised to ask for help if confused concerning either the instructions or the clarity of a particular item. Completion of the entire questionnaire took approximately 20 minutes. At the end of the session their participation was welcomed. Afterward, when all the participants completed the questionnaire, the data were collected by means of the results generator module of the *Scales Editor Version 2.0* (Blanco et al., 2013).

Data analysis

Descriptive statistics (means and standard deviations) for all the variables were calculated. Subsequently, after verifying that the data met the assumptions of parametric statistical analyses, a one-way multivariate analysis of variance (MANOVA), followed by the one-way univariate analysis of variance (ANOVA), were used to examine the differences between the men and women in the reported self-efficacy in both the promotion of culture and cultural identity scores. Moreover, the effect size was estimated using eta-squared (η^2). The internal consistency reliability of the each variable was estimated using the Cronbach coefficient alphas (ICC) and the 95% confidence intervals (CI). All statistical analyses were performed using the SPSS version 20.0 for Windows (IBM® SPSS® Statistics 20). The statistical significance level was set at $p < .05$.

Results:

The promotion of culture factor

Table 3 shows the mean values and standard deviations of self-efficacy in the promotion of culture, as well as the results of the MANOVA and the follow-up univariate ANOVAs. The MANOVA results indicated overall statistically significant differences between genders in the self-efficacy in promotion of the culture scores (Wilks' $\lambda = .979$; $p = < .001$; $\eta^2 = .021$). Subsequently, the follow-up ANOVAs showed that the women reported statistically significant greater perceived, desired, and reachable self-efficacy in the promotion of culture than the men ($F_1 = 29.220$, $p < .001$; $F_1 = 42.993$, $p < .001$; and $F_1 = 38.240$, $p < .001$, respectively). However, in the possibility for improving self-efficacy statistically significant differences were not found ($p > .05$). Finally, the internal consistency reliability of the promotion of culture factor was very high: perceived self-efficacy .898 (.891-.905), desired self-efficacy .901 (.894-.907) and reachable self-efficacy .907 (.901-.913).

Table 3. Results of MANOVA for the gender differences in the six variables of self-efficacy for promotion of culture

	Men (n = 1,187)	Women (n = 902)	F	p	η^2
			15.130	<. 001	.021
Perceived self-efficacy	7.24 (1.63)	7.62 (1.51)	29.220*	<. 001	.014
Desired self-efficacy	8.05 (1.59)	8.48 (1.37)	42.993**	<. 001	.020
Reachable self-efficacy	8.56 (1.33)	8.91 (1.15)	38.240*	<. 001	.018
Possibility for improving perceived self-efficacy	1.32 (.99)	1.29 (.95)	.598	.439	.000

Note. Descriptive values are reported as mean (standard deviation)

Cultural identity factor

Table 4 shows the mean values and standard deviations of the self-efficacy in cultural identity, as well as the results of the MANOVA and the follow-up univariate ANOVAs. The MANOVA results indicated overall statistical significant differences between genders in cultural identity scores (Wilks' λ = .984; p < .001; η^2 = .016). Subsequently, the follow-up ANOVAs showed that the women reported statistically significant better punctuations in perceived, desired and reachable self-efficacy in cultural identity than the men (F_1 = 14.269, p < .001; F_1 = 31.541, p < .001; and F_1 = 26.880, p < .001, respectively). However, in the possibility for improving self-efficacy statistically significant differences were not found (p > .05). Finally, the internal consistency reliability of the cultural identity factor was acceptable: perceived self-efficacy .701 (.678-.723), desired self-efficacy .703 (.680-.724) and reachable self-efficacy .704 (.681-.725).

Table 4. Results of MANOVA for the gender differences in the six variables of self-efficacy for cultural identity

	Men (n = 1,187)	Women (n = 902)	F	p	η^2
			11.516	< .001	.016
Perceived self-efficacy	8.35 (1.20)	8.56 (1.17)	14.269	< .001	.007
Desired self-efficacy	8.94 (1.12)	9.20 (0.93)	31.541*	< .001	.015
Reachable self-efficacy	9.30 (0.86)	9.48 (0.70)	26.880	< .001	.013
Possibility for improving perceived self-efficacy	0.94 (0.81)	0.93 (0.79)	0.101	.750	.000

Note. Descriptive values are reported as mean (standard deviation)

Discussion and Conclusion:

The purpose of the present study was to compare the profiles of perceived self-efficacy in the promotion of culture (consisting of participating actively in creational processes, conservation and cultural diffusion; analyzing the phenomena of globalization and sustainable development from different perspectives; generating an interaction with the environment, fostering the community level; participating in proposals that contribute to the development, and social and cultural improvement;

interacting with different social groups fostering the quality of life; and acting like a promoter of the quality of life); and in cultural identity (consisting of acting with respect and tolerance; demonstrating values before different costumes and differences, as well as toward the multicultural; and identifying themselves with the culture of the state and country) between male and female undergraduates. The results showed that women reported higher levels of self-efficacy than men in the two analyzed factors (the promotion of culture and cultural identity).

Research in literature has differentiated separate domains of self-esteem based on social context and other areas of self-efficacy (Harter, Waters, & Whitesell, 1998). This differentiation occurs as youth mature and have more variety of life experiences. Thus, step-by-step, they are able to realize that they have more skills in a particular area than others. In conclusion, and according to Saunders, Davis, Williams, & Williams (2004), women perceived themselves more efficient than men after adolescence, demonstrating a higher security and desire of success in the sociocultural sphere.

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