

Case 1. Theory and objectives

The Perceived Self-efficacy in Academic Settings (EAPESA, from its original Spanish name; Palenzuela, 1983) consists of ten items intended to measure perceived self-efficacy in academic settings. It contains items such as “I think I am a skilled and competent person in my academic life”. In the original version, respondents are asked to rate each item in a frequency scale from 1 (*Never*) to 4 (*Always*). The item sum provides the total score, with higher values denoting higher perceived self-efficacy. In spite of having been widely used, a technical shortcoming of the scale is the fact that the original writing of some items included adjectives of magnitude that were incoherent with the response scale of frequency and could induce confusion during the response process (e.g., “I think that I have high ability to understand a subject correctly and quickly”). Domingo, Villegas, Yauri, Mattos and Ramírez (2013) rewrote the six offending items avoiding qualifiers of magnitude. Subsequently they obtained content validity evidence through expert judgment. The English translation of the six reworded items is presented in Table 1. Later, Dominguez-Lara (2016), using a slightly modified version of the scale, found evidence that these items were tau-equivalent measures of perceived self-efficacy, that is, that the items conformed with one factor with equal factor loadings.

In the present exercise the objective is to test whether tau-equivalence holds for the six items once the response scale has been extended from four to five points ($1 = \textit{Never}$, $2 = \textit{Hardly ever}$, $3 = \textit{Sometimes}$, $4 = \textit{Frequently}$, $5 = \textit{Always}$). Additionally, we want to quantify the reliability of the total score in order to use this questionnaire in future research in the same context and population. The data set contains the simulated responses of 600 independent participants (see Case1.txt data set).

Table 1. Items from the EAPESA scale to be analysed in Case 1

Item	Content
Y1	I think I am able to understand a subject correctly and quickly.
Y2	It is my conviction that I am able to obtain good results in my exams.
Y3	I am not worried about teachers being strict and demanding as I feel confident in my own academic ability.
Y4	I think I am a skilled and competent person in my academic life.
Y5	I am the type of person who does not need to study to pass an exam or an entire period at University.
Y6	I feel prepared and able to achieve great academic success.

References

- Dominguez, S., Villegas, G., Cabezas, M. Aravena, S. & De la Cruz, M. (2013). Autoeficacia académica y ansiedad ante los exámenes en estudiantes de psicología de una universidad privada [Academic self-efficacy and test anxiety in psychology students of a private university]. *Revista de Psicología-Universidad Católica San Pablo*, 3(3), 13-23.
- Dominguez-Lara, S. (2016). Valores normativos de una escala de autoeficacia académica en estudiantes universitarios de Lima [Normative data of an academic self-efficacy scale in college students from Lima]. *Interacciones. Revista de Avances en Psicología*, 2(2), 91-98. Doi: 10.24016/2016.v2n2.31
- Palenzuela, D. (1983). Construcción y validación de una escala de autoeficacia percibida específica de situaciones académicas [Development and validation of a perceived self-efficacy in academic settings scale]. *Análisis y Modificación de Conducta*, 9(21), 185-219.