PSYCHOMETRIC STUDY OF A SCALE FOR ACADEMIC SELF-EFFICACY ASSESSMENT AMONG PORTUGUESE COLLEGE STUDENTS

Diana Oliveira, Graça Esgalhado, Daniel Oliveira & Nuno M. Garcia

Seville, 17th-19th November 2014
Academic self-efficacy

“Self-efficacy can be defined as the level of trust an individual has in his own capacity to execute a certain task, and depends on both internal and contextual, as previous experience, task nature and peer level of achievement.”

(Fonseca, 2009, p.332)

In academic terms, self-efficacy belief will represent the degree of certainty a student has on his own capacity to achieve goals and reach academic success.
Aims

✓ To Adapt and to validate a scale of academic self-efficacy for the Portuguese college student population.

✓ To produce comparative measurements concerning the participants: (1) gender; (2) age.
Method

1. Participants

- N = 707.

- Age: 18 to 40 years old (M= 22.96;  SD= 4.41).

- Gender: 466 female students and 241 male students.

- Degree: 9 bachelor; 363 graduate; 263 masters; 16 PhD; 48 other (8 didn’t reply this question).

- Year of degree: bachelor (1\textsuperscript{st}; 3\textsuperscript{rd}); graduate (1\textsuperscript{st}; 2\textsuperscript{nd}; 3\textsuperscript{rd}); masters (1\textsuperscript{st}; 2\textsuperscript{nd}); PhD (1\textsuperscript{st}; 2\textsuperscript{nd}/3\textsuperscript{rd}); other (1\textsuperscript{st}; 2\textsuperscript{nd}; 3\textsuperscript{rd}).
2. Material

- Socio-demographic questionnaire;
- General Academic Self-efficacy Questionnaire (Torre Puente, 2006).
  - 1 Scale
  - 9 Items.
3. Questionnaire score

- Likert scale: 1 (total disagreement) to 5 (total agreement);
- Total score: 9-45 points.

The higher the total score, the higher the academic self-efficacy.
4. Procedure

1. Request of authorization from the questionnaire author (Torre Puente, 2006).
2. Translation from the Spanish version to the Portuguese language.
3. Elaboration of a pilot study with 6 participants.
4. Availability of the instrument, online, through Google Docs and divulgation of the link.
5. Statistical analysis with SPSS 22.0.
5. Results

**Sensibility |2|: good sensibility.**

**No eliminated items.**

<table>
<thead>
<tr>
<th>Items</th>
<th>Skewness</th>
<th>Skewness Error</th>
<th>Std. Kurtosis</th>
<th>Kurtosis Error</th>
<th>Std.</th>
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<tbody>
<tr>
<td>1.</td>
<td>-.666</td>
<td>.092</td>
<td>.421</td>
<td>.184</td>
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<tr>
<td>2.</td>
<td>-.506</td>
<td>.092</td>
<td>.241</td>
<td>.184</td>
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<td>3.</td>
<td>-1.037</td>
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<td>1.406</td>
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<tr>
<td>4.</td>
<td>-.659</td>
<td>.092</td>
<td>1.193</td>
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<td>5.</td>
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<td>.092</td>
<td>-.160</td>
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<td>6.</td>
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<td>.513</td>
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<td>7.</td>
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<td>8.</td>
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<tr>
<td>9.</td>
<td>-.761</td>
<td>.092</td>
<td>.770</td>
<td>.184</td>
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</tbody>
</table>
5. Results

✓ Internal consistency analysis: very good ($\alpha = 0.890$).

✓ Exploratory factor analysis
  ✓ (KMO= .922).
  ✓ ($\chi^2 = 2713.620; p< 0.001$).
  
  A single factor was produced;

  Explained total variance= 53.368%

The instrument is suitable for factor analysis.
Results

Mean scores and standard deviation for the total instrument, and according to gender and age.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>34.18</td>
<td>5.39</td>
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<tr>
<td>Gender</td>
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<td></td>
</tr>
<tr>
<td>Female</td>
<td>34.12</td>
<td>5.35</td>
</tr>
<tr>
<td>Male</td>
<td>34.31</td>
<td>5.49</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-21 years old</td>
<td>33.81</td>
<td>5.40</td>
</tr>
<tr>
<td>22-40 years old</td>
<td>34.71</td>
<td>5.35</td>
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</table>
Portuguese version of the General Academic Self-efficacy Questionnaire shows optimal psychometric properties.

Instrument is valid to evaluate academic self-efficacy in Portuguese college students.
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