

ADOLESCENT SELF-REGULATORY INVENTORY: A SHORT-FORM PROPOSAL IN THE PORTUGUESE SECONDARY SCHOOL CONTEXT

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Introduction

Adolescence is characterized by increasing autonomy and changes and/or implementation of new roles at familiar and social settings (Lerner, & Steinberg, 2009), along with progressive responsibility for educational trajectories and outcomes (Benner, 2011; Benner & Graham, 2009), which can pose both challenges as opportunities to adolescent's development. The way adolescents deal effectively with these changes at different levels will likely rely on their abilities to manage their emotions, think constructively, regulate and direct their behaviours, and modify their contexts to change or diminish sources of stress (Zimmer-Gembeck & Skinner, 2011). In other words, adolescents' self-regulatory abilities can play a central role in this phase.

Despite widespread consensus among researchers that adolescent self-regulation is a relevant factor in the overall adjustment in adolescence, there is less agreement among scholars regarding how self-regulation should be conceptualized and measured during this stage. Some authors have argued that self-regulation assessment should incorporate the time perspective, since it is important to distinguish and evaluate long and short-term components of self-regulation (Moilanen, 2007).

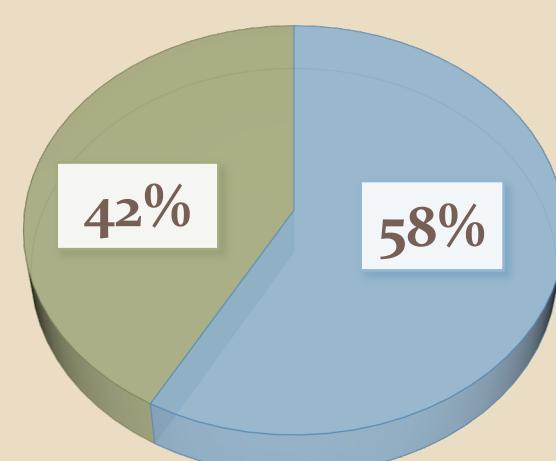
In order to promote the development of practical and valid measurement in the field, in this study, the authors propose a short-form of the Moilanen's (2007) Adolescent Self-Regulatory Inventory (ASRI) and present its psychometric qualities, in the Portuguese academic context.

Method

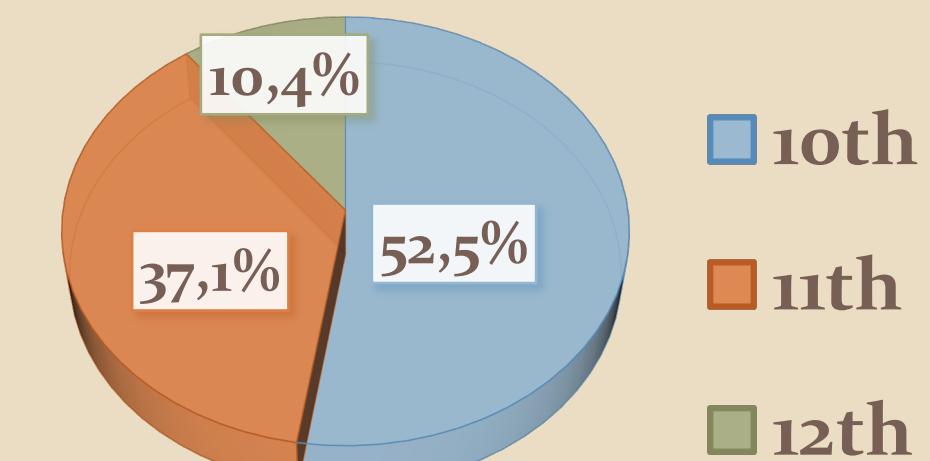
Participants - 423 secondary school students

Ages - 15 to 18 years old (M=16.0; SD=.93)

Gender



Academic Grade



Measure

- The Adolescent Self-regulatory Inventory (43 items; Moilanen, 2007; Portuguese adaptation by Dias, Garcia del Castillo and Moilanen, 2014, with 36 items);
- Assesses "the degree to which adolescents are able to activate, monitor, maintain, inhibit, and adapt their emotions, thoughts, attention, and behaviour";
- 2 dimensions: Short-term self-regulation - relates to impulse, attention and emotional regulation toward immediate objectives; Long-term self-regulation - involves the evaluation of adolescent efforts to control impulse, attention and emotional regulation toward objectives that cover a longer period of time;
- Likert-type response scale, ranging from 1 (not at all true for me) to 5 (really true for me).

Results

Exploratory Factorial Analysis

Tables 1,2,3 – Descriptive of EFA's variance explained, communalities and factor loadings.

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of variance	cumulative %	Total	% of variance	cumulative %
1	2.966	29.662	29.662	2.315	23.152	23.152
2	1.415	14.152	43.815	.741	7.406	30.558

Item	Factor	
	1	2
Item 10	.298	
Item 34	.716	.125
Item 6	.668	.206
Item 19	.130	
Item 30	.560	.515
Item 25	.152	
Item 15	.105	
Item 34	.533	
Item 30	.425	
Item 28	.338	
Item 22	.304	
Item 6	.448	
Item 11	.350	.543
Item 10	.125	.541
Item 25	.058	.380
Item 19	.246	.334
Item 15	.157	.321

➤ Two factors were extracted through EFA (initial eigenvalues and % of variance explained criteria), corresponding to the two theoretical dimensions of the instrument, which explain **30.6% of the total variance**.

Correlations between short and long-term SR:
 $r = .35$

Good internal consistency of the ASRI-SF:
Cronbach's alpha of .71

- The items presented good communalities values, with some exceptions (<.30; item 15,19,25).
- The items saturated the expected short and long-term SR dimensions; Adequate factor loadings, with few exceptions (<.40; item 15,19,25).

Confirmatory Factorial Analysis

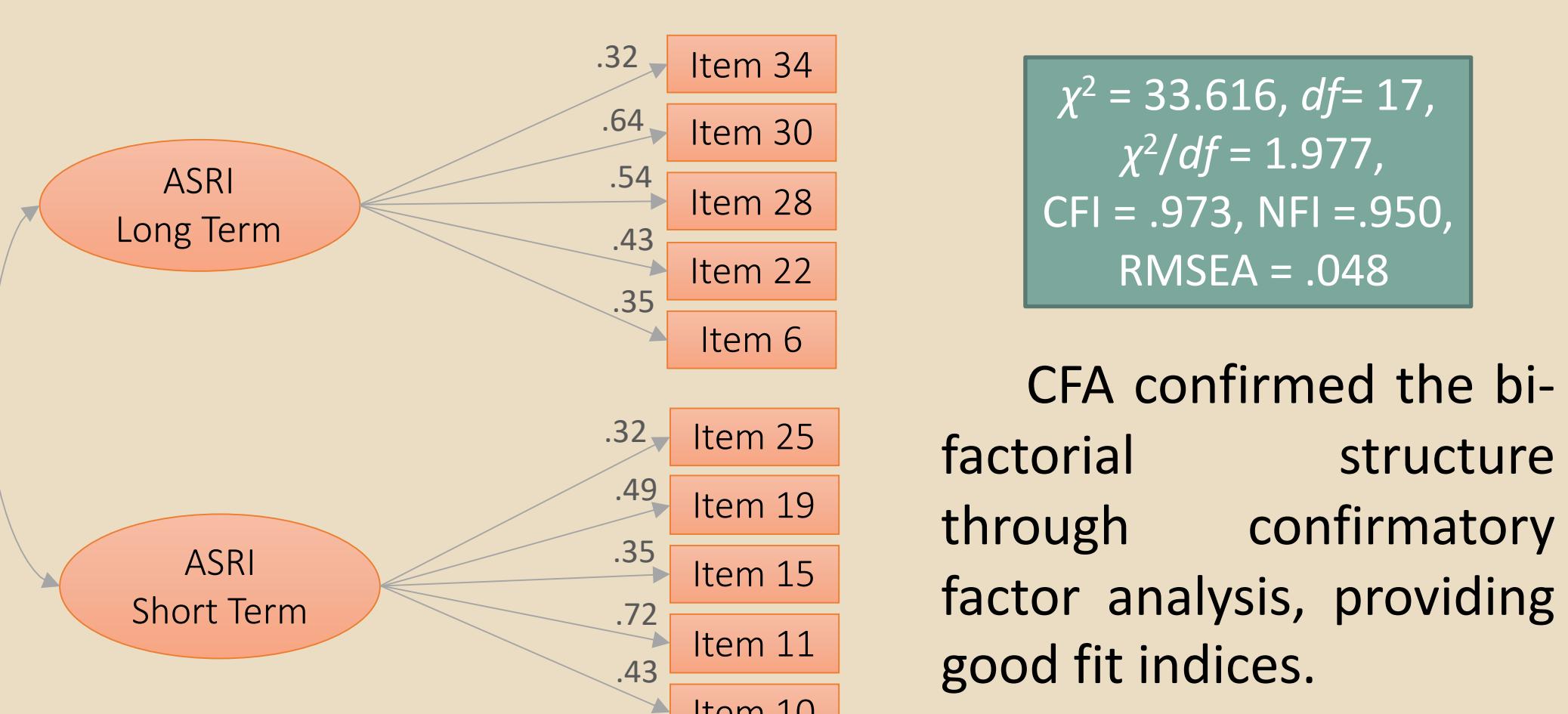


Fig. 1 –The two-factor CFA model of the ASRI-SF.

Construct validity

	Portuguese grade	Mathematics grade	Study hours
ASRI-SF	.29**	.23**	.34**
ASRI-SF short term	.16**	.16**	.15**
ASRI-SF long term	.31**	.19**	.42**

Table 4 – Correlation between ASRI-SF and school variables.

- ASRI-SF also revealed adequate indicators of construct validity as it was positively correlated with other school variables, namely, students' Portuguese (.16 > r < .31) and mathematics (.16 > r < .23) academic achievement, as well as with students' number of hours of study (.15 > r < .42).

Convergent validity

- ASRI-SF showed convergent validity with the original ASRI 43-items scale ($r = .89$).

Conclusions

Overall, the results demonstrated that the ASRI-SF has good psychometric qualities: support the underlying theoretical structure at EFA and CFA, correlation between dimensions, internal consistency, and construct and convergent validity. Nonetheless, some items presented low communalities and factor loadings (item 15,19,25) and should be explore with caution. The ASRI-SF demonstrated its usefulness and practicality in the context of evaluation and research, not excluding, however, the need of future replication of validity studies with larger samples and different settings.

- References:** Benner, A. D. (2011). The transition to high school: Current knowledge, future directions. *Educational Psychology Review*, 23, 299–328.; Benner, A. D., & Graham, S. (2009). The transition to high school as a developmental process among multi ethnic urban youth. *Child Development*, 80, 356–376.; Dias, P.C., Garcia del Castillo, J.A, & Moilanen, K.L. (2014). The Adolescent Self-Regulatory Inventory (ASRI) Adaptation to Portuguese Context. *Paidéia*, 24(58), 155-163.; Moilanen, K. L. (2007). The Adolescent Self-Regulatory Inventory: The development and validation of a questionnaire of short-term and long-term self-regulation. *Journal of Youth and Adolescence*, 36(6), 835-848.; Zimmer-Gembeck, M. J., & Skinner, E. A. (2011). Review: The development of coping across childhood and adolescence: An integrative review and critique of research. *International Journal of Behavioral Development*, 35(1), 1-17.