7th INTERNATIONAL CONGRESS of EDUCATIONAL SCIENCES and DEVELOPMENT
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EMPIRICAL EVIDENCE ON THE VALIDITY OF SELF-ASSESSMENT IN UNIVERSITY STUDENTS

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i. Introduction

- Since the works published by Boud and Falchikov in 1989, Self-assessment has taken a great interest both, in the field of research and in the educational practice.

- As a result, we can currently find up to 20 different topologies of the Self-Assessment concept (see Panadero, Brown, and Strijbos, 2016 for a review)

- Self-assessment is "…mechanisms and techniques through which students describe (i.e., assess) and possibly assign merit or worth to (i.e., evaluate) the qualities of their own learning processes and products" (Panadero, et al., 2016, p. 2)

i. Introduction

- The heterogeneity in the conception of self-assessment translates into a wide range of results on its validity as an evaluation tool.

- Some authors have indicated that the formative benefits of this practice can be above the result of the test (Panadero, et al 2018).

- However, we think that it is important to know the validity of self-assessment as an indicator of knowledge acquired by students.

ii. Main Goal

- Therefore, the main goal of this work is to show empirical evidence on the validity of Self-assessment as a method of evaluation in University education.

- Additionally, we will evaluate how different statistical approaches to the results of the test can offer different information.

iii. Method

Participant

- 64 students from the University of Jaén (M_e 22.48 years)

Apparatus

- Final Exam (six open-ended questions), 0 to 10 range score.
- Self-Evaluation question with evaluation criteria.
- Evaluation rubric for the teacher.

Procedure

- After the exam, the professor blinded the exams and evaluated them applying the previously established rubric.

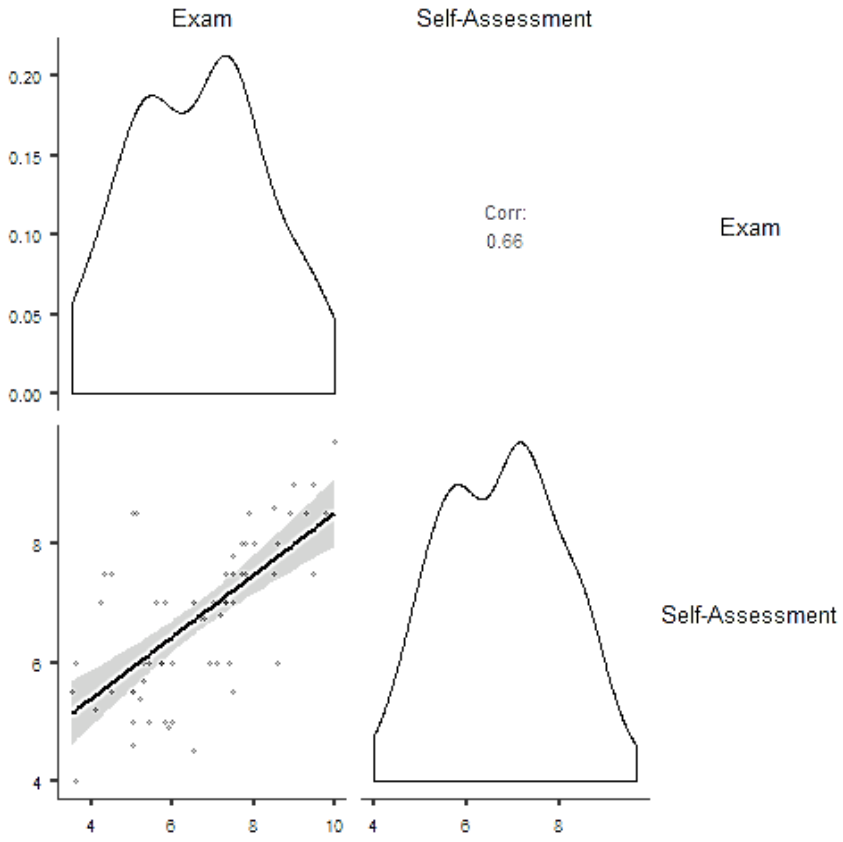
iv. Results

Correlations

Correlation Matrix

		Exam	Self-Assessment
Exam	Pearson's r	—	**0.660** ***
	p-value	—	< .001
	95% CI Upper	—	0.780
	95% CI Lower	—	0.493
Self-Assessment	Pearson's r		—
	p-value		—
	95% CI Upper		—
	95% CI Lower		—

Note. * p < .05, ** p < .01, *** p < .001



iv. Results

Linear Regression

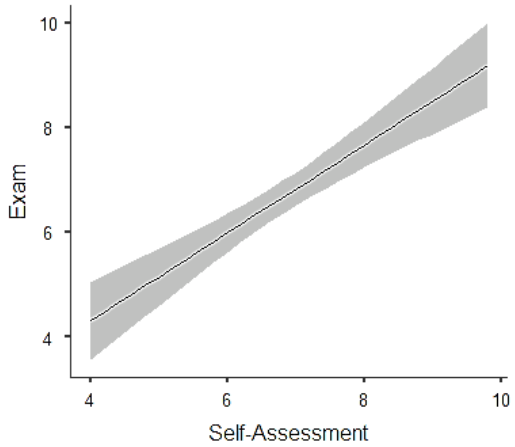
Model Fit Measures

				Overall Model Test			
Model	**R**	**R^2**	**Adjusted R^2**	**F**	**df1**	**df2**	**p**
1	0.660	**0.436**	0.427	47.2	1	61	**< .001*** **

Model Coefficients

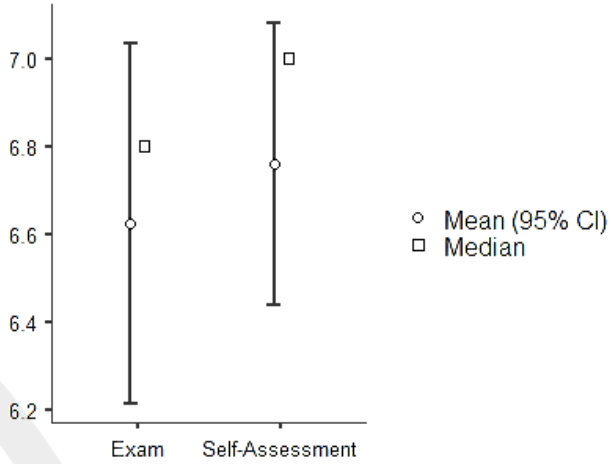
			95% Confidence Interval			
Predictor	**Estimate**	**SE**	**Lower**	**Upper**	**t**	**p**
Intercept	0.935	0.843	-0.752	2.62	1.11	0.272
Self-Assessment	0.842	0.123	0.597	1.09	6.87	**< .001**

Note. * p < .05, ** p < .01, *** p < .001



iv. Results

T test



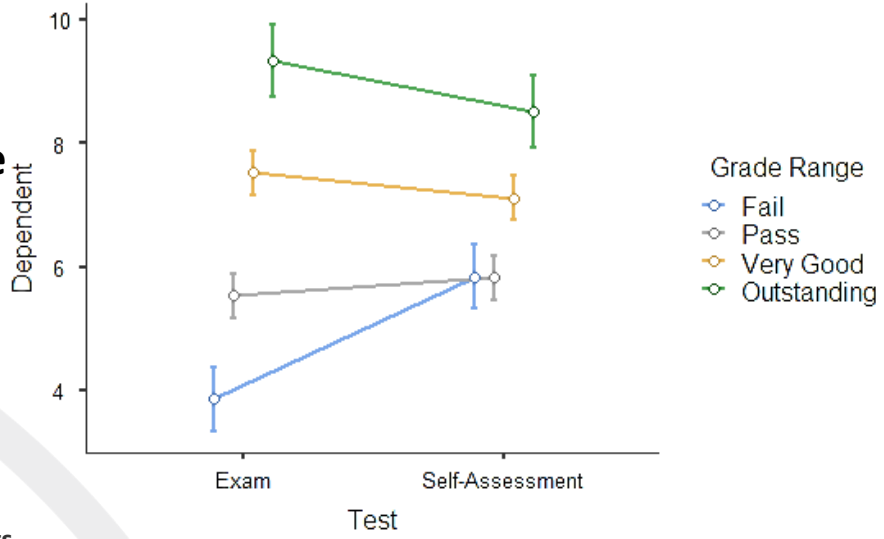
Paired Samples T-Test

						95% Confidence Interval		
			statistic	df	p	Lower	Upper	Cohen's d
Exam	Self-Assessment	Student's t	-0.849	62.0	**0.399**	-0.453	0.183	-0.107

Note. * p < .05, ** p < .01, *** p < .001

iv. Results

ANOVA by Grade Range



Within Subjects Effects

	Sum of Squares	df	Mean Square	F	p	η^2	partial η^2
Test	1.49	1	1.489	3.02	0.087	0.005	0.049
Test ✻ Grade Range	20.29	3	6.765	13.74	**< .001**	0.073	0.411
Residual	29.05	59	0.492				

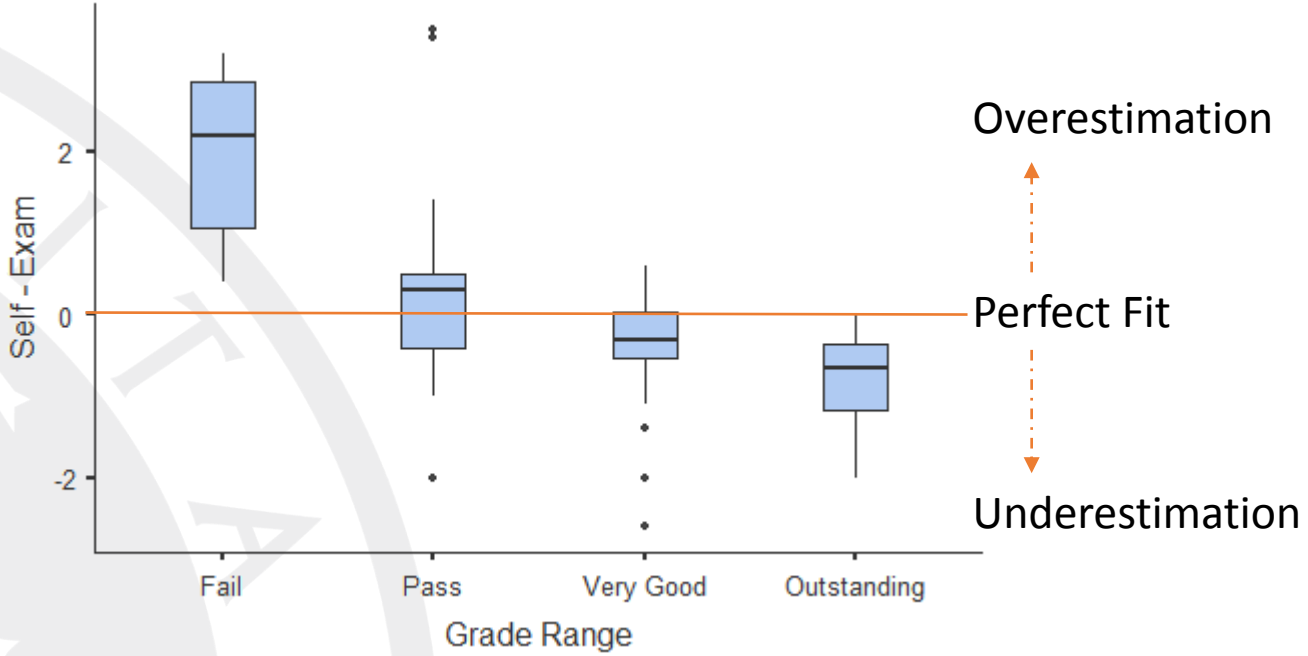
Note. Type 3 Sums of Squares

Between Subjects Effects

	Sum of Squares	df	Mean Square	F	p	η^2	partial η^2
Grade Range	180.3	3	60.100	78.0	**< .001**	0.652	0.799
Residual	45.5	59	0.771				

iv. Results

ANOVA by Grade Range (Self-Assessment – Exam)



iv. Conclusions

- Self-evaluation, in general terms, can be a valid evaluation technique in university education.
- However, this technique loses validity when applied to the extremes of the population.
- Specifically, it might result in an over-evaluation of actual grades by the less skilled students or in a underestimation of them by the most capable students.

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THANKS!
QUESTIONS?

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