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GIFTED RATING SCALES-SCHOOL FORM
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VALIDATION OF THE ITALIAN VERSION. PRELIMINARY DATA-

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INTRODUCTION

The challenge of correctly identifying gifted students has long been understood to be one of the most critical issues to be resolved (Pfeiffer, 2003; Cramer 1991). This is particularly true in Italy where gifted education has experienced insufficient support (Zanetti, Renati, Beretta, 2013).

In the contexts in which the topic is known for a long time, it is argued that one of the most critical issues to be resolved, before designing a program for gifted children is their identification (Gallagher, 2003; Pfeiffer, 2002).

INTRODUCTION

This of course require a theory of giftedness, the most recents of which agree about the multidimensional nature of uncommon ability (Gardner, 1983; Sternberg, 1997; Tannenbaum, 2000).

Although most people think of giftedness in terms of intellectual giftedness, children show extraordinary talents in the arts , music, sports, inter-relational, etc.

INTRODUCTION

The teachers, spending a lot of time with the children, have the opportunity to observe and interact with them and, therefore, to express valid opinions (Kenny & Chekaluk, 1993 Meisel, Bickel, Nicholson, Xue, & Atkins-Burnett, 2001; Perry & Meisels, 1996).

That's why their sight is a an important finding that should be considered *(Davidson, 1986; Pfeiffer, 2002).* In effect the use of teacher rating scales claims a long history in identification of gifted students *(Pfeiffer and Blei, 2008).*

One of the most used tools for the identification of gifted students are the Gifted Rating Scales-School Form.

INTRODUCTION

The *Gifted Rating Scales (Pfeiffer and Jarosewich, 2003)* was designed as a diagnostically appropriate instrument to assist in the gifted identification process *(Siu, 2009).*

The *GRS-S* is based on a multidimensional model of giftedness that incorporates the Munich model of giftedness and talent *(Ziegler & Heller, 2000)* and the typology that appears in the U.S. Department of Education Report, *National Excellence: A Case for Developing America's Talent (Ross, 1993).*

The GRS has demostrated solid psychometric properties *(Margulies & Floyd, 2004; Ward, 2005; Rosado, 2008; Li, Pfeiffer, Petscher, Kumtepe & Mo, 2008).*

PURPOSE OF THE RESEARCH

The present study sought to examine the reliability and validity of the Italian–translated version of GRS-S and explore the possible effects of gender on each of the GRS-S subscales.

Particular attention was focused on the Intellectual Ability, Academic Ability scales.

METHOD

Sample and procedures

The study was mainly conducted in Lombardia, a region of Northern Italy. From five comprehensive schools that combine eleven public schools was selected the sample of 449 students, 222 male (48.5) and 227 female (49.6).

The sample includes 141 subjects from countries up to 6.000 inhabitans (31.4%), 248 from small town up to 80.000 inhabitans (54.2%), 50 from suburs (11%9) and 10 from metropolitan cities (2,2). This distribution reflects the distribution of the Italian Population (Quaderni di Analisi ANCI-IFEL, 2013).

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METHOD

Sample and procedures

Students were from grades 1-8 and ranged between six and thirteen years (mean 9.1 years); 326 were from primary school (72.6%) and 123 from middle school (27.4%), randomly selected (five male and five female from each class) by teacher

45 teachers (44 female and 1 male) were trained through meetings set to follow carefully the instructions for filling out the scales and to express an objective and independent assessment item for each of the six scales.

They provided a copy of each student's most recent report card and student performance on the national achievement test, the INVALSI, when available (63 subjects).

All subjects were administred the subtest of WISC IV giving the General Ability Index.

METHOD

Measures

***GRS-S* :**The Gifted Rating Scales-School Form (GRS, *Pfeiffer and Jarosewich, 2003a*) is designed for students aged 6–13 and consists of six scales, 12 items per scale. Each item is rated on a nine-point scale divided into three ranges: 1 to 3 = below average; 4 to 6 = average; 7 to 9 = above average. Raw scores for each of the scales were converted to standard T scores with a mean of 50 and SD of 10.

METHOD

Measures

The Italian-version GRS went through a rigorous translation procedure (*Geisenger,1994*), reported in Rosado, Pfeiffer and Petscher (2008). The translation process included item-by-item translation, panel review and critique, and a back translation.

All analyzes were conducted using T scores.

METHOD

Measures

GAI: On the WISC–IV, the GAI consists of the three core verbal comprehension subtests (Similarities, Vocabulary, and Comprehension) and the three core perceptual reasoning subtests (Block Design, Matrix Reasoning, and Picture Concepts) and does not include the Working Memory or Processing Speed subtests included in the Full Scale IQ (FSIQ). In this study was considered the GAI that offers some benefits over the FSIQ as an overall summary of intelligence, first the expediency of administration (Rowe, Kingsley and Thompson, 2010).

METHOD

Measures

I***Test INVALSI:*** INVaISI is a research institute taking on the name of National Institute for the Educational Evaluation of Instruction and Training (INVaISI). The Institute carries out periodic and systematic checks on students' knowledge and skills and prepares, for Ministry of Education selection, the national tests for the state examination at the end of the education cycles. Subject areas assessed on the scale are Italian, Mathematics in grades 2, 5 and 8. Student performance in each of the areas is reported by percentage of questions answered correctly. INVALSI performance were available for 63 students.

METHOD

Measures

GPA: a copy of each student's most recent report card was obtained. Participating schools use a ten point grading system: grades from 1 to 5.99 correspond to the F in the five letter grading system; grades from 6 to 6.99 to C; from 7 to 7.99 to B; from 8 to 8.99 to A and from 9 to 10 to A+. A total point average score was calculated based on student performance in all subject areas. GPA was available for 333 students.

RESULTS

Reliability:

Means and standard deviations for each of the scales considered ranged from 50.2 to 53.2 and 9.0 to 11.9, respectively. Reliability was tested by calculating Cronbach's (1951) Coefficient Alpha. All alpha coefficients for the Italian translation are .98 , except for those obtained in Intellectual Ability (.99), and Artistic Talent.

RESULTS

Reliability:

Pearson product moment correlations were computed for the six scales on the Italian GRS-S. All correlation coefficients were significant at the $p < .01$ level. The highest correlation coefficient was between intellectual ability and academic ability ($r[449]=.91$, $p <. 01$). The lowest coefficients were between leadership and artistic ability ($r[449]=.64$) and between intellectual ability and artistic talent and between intellectual ability and leadership ($r[449]=.65$).

RESULTS

Correlation coefficients of the GRS-S Italian version scores (n=449)

	Intellectual Ability	Academic Ability	Creativity	Artistic Talent	Leadership	Motivation
Intellectual Ab.	1	**.91****	.84**	.65**	.65**	.83**
Academic Ab.		1	.87**	.71**	.76**	.89**
Creativity			1	.79**	.70**	.80**
Artistic Talent				1	**.64****	.68**
Leadership					1	.82**
Motivation						1

**. $p < 0{,}01$.

RESULTS

Comparison between mean and standard deviation of the Italian version *T*scores and USA standardization *T*scores (n=449)

	Intellectual Ability	Academic Ability	Creativity	Artistic Talent	Leadership	Motivation
Italian Version Mean	51.5	52.0	51.5	53.2	50.2	51.7
USA Standard. Mean	50.4	51.0	50.4	50.5	50.2	50.9
Italian Version SD	11.8	10.3	11.4	11.9	9.0	9.7
USA SD	10.4	9.9	9.7	10.3	10.5	10.7

RESULTS

Means, Standard deviations and Analysys of Variance (ANOVA) by Gender

	Male (n=222)		Female (n=227)			
	M	SD	M	SD	t(1,448)	p
Intellectual Ability	52.2	11.7	50.8	11.8	1.2	.2
Academic Ability	52.2	10.0	51.8	10.5	.3	.7
Creativity	51.5	11.5	51.6	11.2	-.07	.9
Artistic Talent	50.6	10.9	55.7	12.2	-4.6	<0.01
Leadership	48.5	8.7	51.7	8.9	-3.8	<0.01
Motivation	51.4	9.7	52.0	9.6	-.6	.5

RESULTS

Correlation coefficients between GRS-S Italian version scores and scores on GAI (n=449)

	Intellectual Ability	Academic Ability	Creativity	Artistic Talent	Leadership	Motivation
GAI	.52**	.50**	.46**	.42**	.30**	.45**

**p<0.01

RESULTS

Correlation coefficients between GRS-S Italian version scores and GPA (n=333)

	Intellectual Ability	Academic Ability	Creativity	Artistic Talent	Leadership	Motivation
GPA	.50**	.57**	.45**	.50**	.49**	.50**

**p<0.01

RESULTS

Correlation coefficients between GRS-S Italian version scores and INVALSI scores (n=63)

	Intellectual Ability	Academic Ability	Creativity	Artistic Talent	Leadership	Motivation
INVALSI	.61**	.61**	.56**	.43**	.44**	.55**

**p<0.01

DISCUSSION

This study investigated the reliability and validity of an Italian-translated version of GRS-S and explored the possible effects of gender on each of the subscales.

The reliability coefficients of the Italian GRS-S were above the minimal standard of .80 (*Bracken, Keith & Walker, 1998*). Coefficient alphas ranged from .98 to .99.

DISCUSSION

Results provide support for the criterion validity of the Italian-translated GRS-S. The correlation coefficients between the GRS-S scores and the GAI scores yielded positive and significant relationships, stronger than in the USA sample: the highest correlation was between Intellectual ability (.52, $p < .01$), the lowest between Leadership (.30, $p < .01$).

DISCUSSION

Also correlation between GRS-S and GPA was positive and significant, like those between INVALSI performance and GRS-S.

The overall mean subscale scores of the Italian translated version did not differ significantly by gender. For gender, the largest difference among the six subscales were in Artistic Talent and in Leadership: the average score for girls was higher than that for boys.

STUDY LIMITATIONS AND IMPLICATIONS

The sample was relatively large, however it did not include students from every region of Italy. It is important to note that teachers have contributed to the research voluntarily and without compensation.
The study has methodological limitations that should be considered in future studies.
First further research may need to use larger and more representative samples that closely approximate the population.

STUDY LIMITATIONS AND IMPLICATIONS

Second, the analyzes presented are preliminary, both EFA and CFA are needed.

Despite its limitations, this study represents an important step forward into how a translated version of a gifted rating scale can assist in identifying high ability students in another country (*Rosado, Pfeiffer and Petscher, 2013).*

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THANK YOU ☺

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