



Some results of the Intelligence Test for Visually Impaired Children on a Hungarian Sample

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INTRODUCTION

Intelligence test batteries for blind children and those having very low functional vision is very limited. Recent developments and professional interest just as publications are focusing on vision and touch performance. No doubt these are crucial aspects of successful adaptation for visually impaired individuals! Nonetheless measuring – examining mental problem solving abilities and purposeful task solving via intelligence tests are equally important.

AIMS

Analyzing results of the 40 subject in terms of factor structure, the relationship between ITVIC Full and Short form IQ. Reliability aspects. Comparison to the original standardization Dutch speaking sample.

FIGURAL ANALOGIES

http://www.bartimeus.nl/publicaties_shop_product2599

SAMPLE

40 Subjects
Mean of age: 14,66 \pm 1,58
(min. 10,50 – max. 16,08)
Male: 18; Female: 22
2/3 of the sample was born prematurely
35 blind – 5 seriously VI

THEORY AND METHOD

Applying the ITVIC test for assessing cognitive abilities of seriously visually impaired children using Haptic and Verbal subtests is the only means in Hungary.

The sample was the sub population of a longitudinal study in the late 90's. The results of the 40 subjects on the ITVIC subtests were calculated by several aspects: ITVIC IQ, VQ, IQ, full and short version, Braille group and own- group (reference by sight). The results were analyzed with SPSS 17.0

Internal consistency were calculated (Cronbach Alfa). The principal component factor analysis was performed with varimax rotation and also with communality indicators. The relationship between ITVIC IQ and other quotients were explored by Spearman correlations and Wilcoxon tests (as an equivalent to paired t-test).

DIFFERENCES OF THE HUNGARIAN & DUTCH SAMPLE

Quotients	N	Mean	Sd	t	df	p
ITVIC_Braille group IQ	40	101,50	9,861	,962	39	,342
ITVIC_Reference group IQ	40	100,53	10,749	,309	39	,759
ITVIC_Braille group VQ	40	98,48	13,496	-,715	39	,479
ITVIC_Reference group VQ	40	93,63	12,386	-,325	39	,002
ITVIC_Braille group HQ	40	102,43	7,841	1,956	39	,058
ITVIC_Reference group HQ	40	103,03	9,670	1,978	39	,055
ITVIC_Braille group IQ_SF	40	102,80	8,579	2,064	39	,046
ITVIC_Reference group IQ_SF	40	100,35	9,130	,242	39	,810

Rotated Component Matrix^a

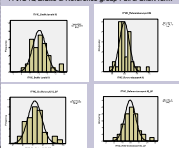
	Component	
	1	2
Map Questions	,826	
Perception of figures	,746	
House plan questions	,726	
Rectangle puzzle	,716	,275
Block design	,638	,348
Figural analogy	,561	,540
Exclusion	,271	,773
Learning names		,742
Fluency	,443	,606
Verbal analogies		,567

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Consistency:
In the 7 haptic subtests Cronbach= 0,83
In verbal subtests not more than 0,6

ITVIC IQ Braille & Reference group Full & Short form



CONCLUSIONS

Via ITVIC we gained useful new information in assessing VI children. Assumptions that verbal abilities are over representing the intelligence of VI children in our sample seems not be true. Haptic performance is not only offering important information besides verbal component but proved to raise IQ. Cronbach Alfa shows coherence in haptic subtests while not for verbal ones.

LITERATURE

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ACKNOWLEDGEMENT

Thanks to my colleagues taking part in the testing Csákvári & Németh;
To those who helped in the statistical analysis: Horváth, Szabó and Danis.
To Lányiné Engelmayer who bought the ITVIC test from her research grant. Without her generous help this research wouldn't be possible.