

Introduction to the results of the Oregon Project as a part of a complex research (OTKA K-61463) run in Hungary 2006-2010



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The aim of the presentation

- 1st Introduction of the complex research we've run in Hungary:
2nd Introduction to the research with the Oregon Project
- 3rd Introduction of the results with the Oregon Project

Complete Research Was Financed by:



- The title of the research:
Implementation of modern diagnostic and remedial approaches among individuals with special needs and serious, multiple impairments
- Number of the research: K-61463
- The duration of the research was:
2006-2010

Aim of the Complete Research

- To try out and to suggest new assessment tools for the population with serious multiple impairment among them those with visual impairment.
- Key words of the complete research: **multiple impairment, special needs education, social adaptation, alternative communication, rehabilitation, special education, special educational psychology**

Instruments Planed to Be Used

Ages	0-3	6-8	8-20	Sum
• Battelle Developmental Inventory- II	25	25		50
• Callier-Azusa Scale	15	15		30
• Scales of Independent Behavior-R	25	25	25	75
• Scales of Independent Behavior-R for Visually Impaired	15	15	30	60
• Parenting Stress Index - III	40	40		80
• <u>Stress Index for Parents of Adolescents</u>			55	55
All together	120	120	110	350

Instruments Used

- Battelle Developmental Inventory- II
- Oregon Project
- Bielefeld Observation Scales
- Scales of Independent Behavior-R
- Scales of Independent Behavior-R
for Visually Impaired not adequate
- Parenting Stress Index - III
- Stress Index for Parents of Adolescents

Assessment Tools in Early Intervention

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European Conference on Early Intervention for Families with Children with Visual Impairment
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Research and Work in the Institute of Special Psychology

Battelle Developmental Inventory -2nd Ed. Hungarian version*



5 domains (13 subdomains): cognitive, motor, communication, adaptive, personal-social
Screening test version with 100 items from each domain
Provides a variety of accommodations that allows children to indicate responses to each item
Can be used from infancy to 7;11 years

Scales of Independent Behavior - Revised Early Development Form - Hungarian version**

Comprehensive, norm-referenced assessment of adaptive and maladaptive behavior

Used with children in infancy through 6 years

Includes 40 questions

Can be administered to a parent or caregiver as an interview, or as a checklist



Can be used as a screener or as a separate assessment to measure adaptive behavior

Bielefeld Observation Scales (BOS-BLIND)*

Consists of six scales that assess:

- Basic neuromotor skills
- Cognitive development
- Socioemotional development
- Language development
- Orientation and mobility
- Daily living skills

Has an absolutely new approach and philosophy in assessment of blind children

Can be used from 3 month till 6 years

Maxfield-Bucholz Scale of Social Maturity for Preschool Blind Children Hungarian version

Can be applied from 0-6 years

Has a classical approach, info of the development is not detailed (result is given in SQ) and does not refer to functional vision

The scale has been used in assessment since the 70's in Hungary

A study of the retrospective data shows that results are reliable for screening purposes in cases of no functional vision

Oregon Project - Hungarian version

A criterion-referenced assessment that measures performance of individual skills,

Enables educators recording the acquisition of skills for those children between the ages of birth and 6 years

The Skills Inventory consists of 640 behavioral statements organized in eight developmental areas:

Cognitive, Language, Socialization, Vision, Compensatory, Self-Help, Fine-Motor, and Gross Motor

*Supported by OTKA Research No. 61463 and ELTE GYFK

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Reynell-Zinkin Developmental Scales for Young Visually Handicapped Children Hungarian version

Contains six subscales:

- social adaptation;
- sensorimotor understanding;
- exploration of the environment;
- response to sound and verbal comprehension;
- vocalization and expressive language structure;
- expressive language, vocabulary, and content



Oregon Project

- The population: For the present analysis we chose 64 children from the pool of 76 examined children on the basis that they had an age appropriate Oregon record
- (the rest of the children were measured on a lower and/or higher age level than their chronological age, due to their assumed developmental delay)
- The records were taken by early intervention specialists

Introduction of the population

Gender

- Practically equal

AGE Groups

		Frequency	Percent	Valid Percent
Valid	0-1	31	46.3	46.3
	1-2	19	28.4	28.4
	2-3	11	16.4	16.4
	3-4	2	3.0	3.0
	4-5	3	4.5	4.5
	5-6	1	1.5	1.5
	Total	67	100.0	100.0

Residence

		Frequency	Percent	Valid Percent
Valid	Bpest	28	41.8	49.1
	City	17	25.4	29.8
	Village	12	17.9	21.1
	Total	57	85.1	100.0

Gestation Time I.

	Week	Frequency	Percent
Valid	23	1	1.5
	24	6	9.0
	25	4	6.0
	26	2	3.0
	27	5	7.5
	28	2	3.0
	29	1	1.5
	30	2	3.0
	32	1	1.5

Gestation Time II.

Week	Frequency	Percent
33	3	4.5
34	1	1.5
35	3	4.5
36	4	6.0
37	5	7.5
38	4	6.0
39	3	4.5
40	7	10.4
41	3	4.5
Total	57	85.1

Birth weight

		Frequency	Percent
	640-800	11	15
	850-990	6	9
	1200-1500	7	9
	1560-2500	10	12
	2560<	24	34.5
	Total	58	86.6
Missing	System	9	13.4
Total		67	100.0

Days in Hospital

	Days	Frequency	Percent
Valid	3-5	17	25.4
	7-14	6	9.0
	8-19	6	9.0
	30-49	6	9.0
	91-150	14	21.0
	151-182	5	7.5
	213	1	1.5
	230	1	1.5
	Total	56	77.6
Missing	System	11	20.2
Total		67	100.0

Some More Data

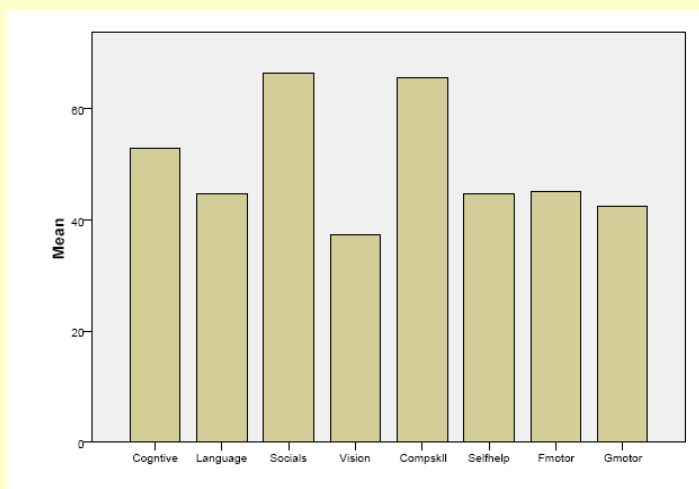
- Maxfield – Buchholz scores for 23 children
- Father occupation: Inactive 3%, Unskilled 9%, Skilled 23,9%, Administrative 16,4%, Graduate 20.9% with some missing data.

Results

Reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
.891	8

Means on the Oregon Subscales



Cluster analysis

- For the characterization of the test profile we run a cluster analysis.
- It helped to discover possible patterns among the children along their scores on the subtests / helped to identify similar performance of certain groups of children
- We succeeded to identify 5 groups: 1st Poor performance with high compensation; 2nd High scores; 3rd Poor scores; 4th High scores with serious VI; 5th High scores with poor Gmotor

Final Cluster Centers

	Cluster					total
	Poor performance/ high compenz	High scores	Poor scores	High scores/ serious VI	High scores / poor Gmotor	
Cognitive	13	84	33	61	76	53
Language	8	57	25	66	58	45
Socials	22	94	49	76	93	66
Vision	17	81	28	20	76	37
Compskill	82	98	35	78	63	66
Selfhelp	43	84	23	46	49	45
Fmotor	32	84	20	55	47	45
Gmotor	31	89	19	55	17	43
Total	6	11	22	20	5	64

In the cells you see average scores of each group of children in %

Possible conclusions

- With the cluster analysis of the subscales we sketched a way to (a kind of) typology of the Oregon profile patterns.
- A relevant typology could be set up either on the large scale with the claim of a standardized solution or for even a relatively small community of Oregon users based on their local clients.
- A typology that takes patterns into consideration rather than ad hoc estimation of the variations of the subscales will (would could may) improve the evaluation of the individual child and - accordingly - improve the decision making about intervention.
- On the other hand, Oregon seems to bear the statistical attributes of a developmental test, a simple additive score can be used to estimate the overall status, again either on small scale, locally or for a standardization process.

Correlation found at the
background of the clusters

