Orientation in the scheme of the body
- basic skills in spatial orientation in blind child
- report from research

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established in 1922
TYPES OF EDUCATIONAL INSTITUTIONS IN POLAND

Visually impaired pupils

- Special school
- Integration school
- Public school

- Special class
- Integration class
- Public class
POPULATION BLIND AND LOW VISION STUDENTS 2015/2016

6723 – total

Blind - 3%
(221 students)

Low vision – 97%
(6502 students)
BLIND AND LOW VISION STUDENTS IN 2015/2016

**Blind**
- 73% in public school
- 27% in special school

**Low vision**
- 91% in public school
- 9% in special school
„Space in actions and utterances of blind children in early school age.”

Doctoral thesis prepared under the supervision of Professor Jadwiga Kuczyńska-Kwapisz
RESEARCH PURPOSE

Development of selected spatial orientation skills in blind children early school age

Factors that influence on development of spatial orientation in blind children early school age
RESEARCH METHODS AND TECHNIQUES

Diagnostic survey
- inspection of documents
- interview

Diagnostics experiments
- diagnostic task
- observation
RESEARCH TOOLS

Data collection questionnaire

Interview questionnaire

Functional assessment of selected spatial orientation skills for blind children
RESEARCH TOOLS

Functional assessment of selected spatial orientation skills for blind children

- screening test „Laterality“
- screening test „Body image of blind children“ by B.J. Cratty, T.A. Sams
- functional assessment of spatial concept
SCREENING TEST „BODY IMAGE OF BLIND CHILDREN”
B.J. CRATTY, T.A. SAMS

Body image of blind children

- Body planes
- Body parts
- Body movements
- Laterality
- Directionality
### CHARACTERISTICS OF THE RESEARCH POPULATION

<table>
<thead>
<tr>
<th>Preschool</th>
<th>School</th>
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<tr>
<td>52% public</td>
<td>92% special</td>
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<tr>
<td>30% integ.</td>
<td>8% public</td>
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<tr>
<td>16% spec.</td>
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</table>

- **50** blind students (6-12 years)
- **58%**
- **42%**
- **40%**
- **36%**
- **24%**
- **75%**
- **50%**
- **25%**
- **86%**
- **14%**

- **Retinopathy of Prematurity (ROP)**
- **11 year**
- **32%**

- **30%**
- **16%**
- **92%**
- **8%**
- **100%**
- **42%**
- **40%**
BODY PLANES

The numbers of blind children due to the correctness of the response in the test „Body Planes”

Mean results from the complete test “Body Planes” for each age group
The numbers of blind children due to the correctness of the response in the test „Body Parts - simple“

Wrong answer | Correct answer
---|---
Arm: 20% | 80%
Hand: 2% | 98%
Leg: 0% | 100%
Elbow: 2% | 98%
Knee: 0% | 100%

The number of blind children due to the correctness of the response in the test „Body Parts – limbs parts“

Wrong answer | Correct answer
---|---
Wrist: 20% | 80%
Thigh: 20% | 80%
Forearm: 38% | 62%
Upper arm: 44% | 56%
Shoulder: 46% | 54%
The numbers of blind children due to the correctness of the response in the test „Body Parts – parts of the face”

The numbers of blind children due to the correctness of the response in the test „Body Parts – hands-fingers”
BODY PARTS

Mean results from the complete test "Body Parts" for each age group
BODY MOVEMENTS

Mean results from the complete test "Body movements" for each age group
The numbers of blind children due to the correctness of the response in the test „Laterality– simple directions”

The numbers of blind children due to the correctness of the response in the test „Laterality– complex directions”
Mean results from the complete test „Laterality“ for each age group.
The numbers of blind children due to the correctness of the response in the test „Directionality– tester is seat facing child“
Mean results from the complete test „Directionality“ for each age group.
SUMMARY

The share of correct answers at 75%

The share of correct answers at 100%
### Corelation

<table>
<thead>
<tr>
<th></th>
<th>Body image</th>
<th>Understanding and using spatial concept in a large space</th>
<th>Understanding and using spatial concept in a small space</th>
<th>Directions of pieces of paper</th>
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<tr>
<td><strong>Body image</strong></td>
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<td>Correlation coefficient</td>
<td>1</td>
<td>,600**</td>
<td>,522**</td>
<td>,496**</td>
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<td>Significance (bilateral)</td>
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<td>Body image Body planes</td>
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<td>Body image Body movements</td>
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<td>0.008</td>
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CONCLUSION

Body image
- develops with the child’s age
- 9th year of life it’s time of stabilization of the skills
- 11th year of life is time when blind children have a well-developed skills

Body image
- depends on sighted intermediaries (teachers, parents)
- depends on specially designed exercises (orientation and mobility)
CONCLUSION

- Body Image
- Spatial concept
- Descriptions of space
- Pieces of paper
Thank you for your attention!