



ANALYSIS OF PRECONDITIONS FOR DESIGN OF SENSORY ENVIRONMENT IN CZECH, BULGARIAN, MACEDONIAN AND CROATIAN KINDERGARTEN

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1. INTRODUCTION

- kindergarten is a place of joyful living:
 - socializing, playing, learning
 - educating children and adults in achieving a healthy and quality life
- not all children have the same conditions of growth and development:
 - problems in sensory integration disorders is increased
 - the lack of appropriate interior design and designed products (e.g. toys)
- Occupational therapy for children (OT)
 - used as a method to encourage and develop the functional abilities that a child needs in daily life
- usage of sensory toys and wood products
 - sensory-integration and developmental and / or cognitive approach



1.1. The aim of the research

- analyze interiors of kindergartens in 4 countries:
 - **Republic of Croatia (RH)**
 - **Republic of North Macedonia (MK)**
 - **Bulgaria (BG)**
 - **Czech Republic (CZ)**
- identifying appropriate products, furniture, equipment and toys in kindergartens
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- to determine the quality and conditions of the environment and related products which apply sensory integration of children

The paper presents a part of wither research conducted in kindergartens in four countries and their main towns.

2. MATERIALS AND METHODS

- the research covered several methods, types of respondents and polygons

2.1. Materials

2.1.1. Polygons

- the survey was conducted from 2017-2019
- **4 countries:**
 - Republic of Croatia (RH), Republic of North Macedonia (MK), Bulgaria (BG) and the Czech Republic (CZ),
- **4 cities:**
 - Zagreb (HR), Skopje (MK), Sofia (BG) and Brno (CZ).
- **15 kindergartens (polygons):**
 - 3_Zagreb (RH), 8_Skopje (MK), 3_Sofia (BG), 1_Brno (CZ).

2. MATERIALS AND METHODS

- the research covered several methods, types of respondents and polygons

2.2. Methods

2.2.1. *Observing and photographing*

- observing the equipment of kindergartens and schools,
- photographing the furniture and equipment
 - functionality and adaptation to the needs of the educational process.

The aim of this method was to investigate whether the furniture is functional, encourages creativity in children and sensory integration.

3. RESULTS AND DISCUSSION

- photographs show the actual situation of playing and working conditions, as well as the quality and design of the kindergartens' interiors
- the results of the research include photographs of the observed polygons (exemplars):

POLYGON 1
Zagreb (HR)



POLYGON 2
Skopje (MK)



POLYGON 3
Sofia (BG)



POLYGON 4
Brno (CZ)



3. RESULTS AND DISCUSSION

POLYGON 1 _ Zagreb (HR)



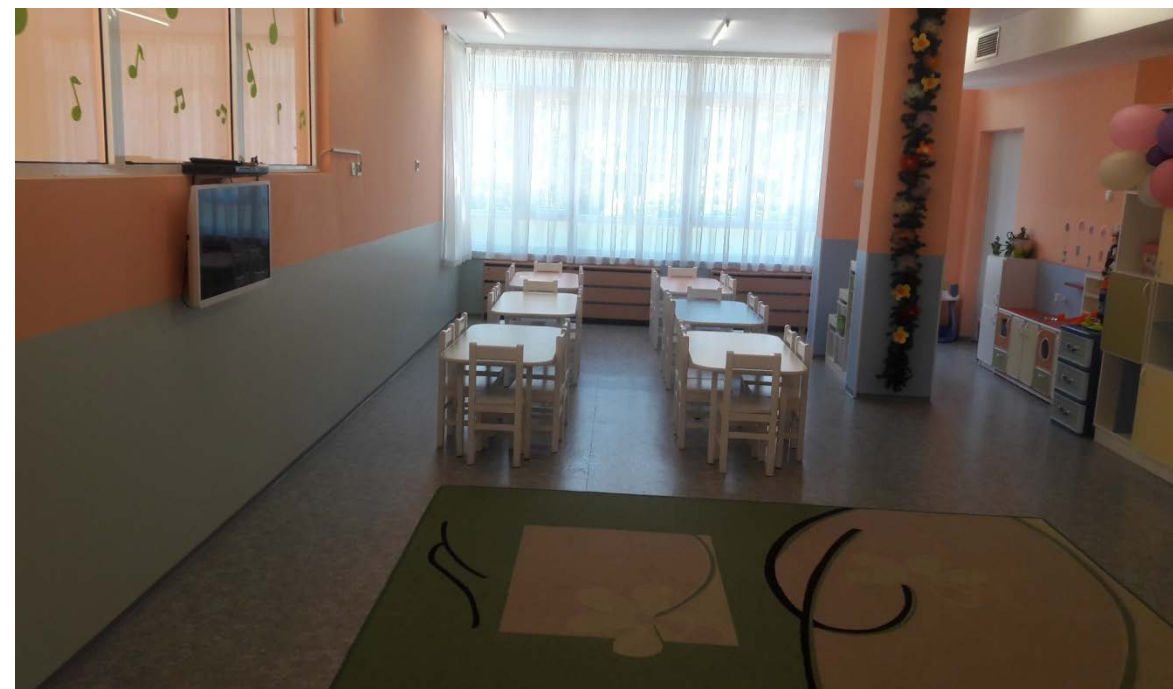
3. RESULTS AND DISCUSSION

POLYGON 2 _ Skopje (MK)



3. RESULTS AND DISCUSSION

POLYGON 3 _ Sofia (BG)



3. RESULTS AND DISCUSSION

POLYGON 4 _ Brno (CZ)



3. RESULTS AND DISCUSSION

- **Observations and photos of polygons present:**
 - a creative approach to equipping kindergartens
 - different functional elements of furniture and equipment
 - colored products (furniture, toys, accessories, equipment etc.)
 - different types of materials
 - painted walls with cartoon or story characters (Brno)
 - great enthusiasm of the teachers 😊
- **furniture and equipment are old and traditionally designed**
 - e.g. “four legged” chairs and tables
- **interiors are equipped with colorful sensory elements and toys**
 - different materials such as textiles, foams, wood and plastic.



4. CONCLUSION

- the need for sensory furniture, toys and didactic devices that will stimulate creativity in children's work and play areas
- **Furniture:**
 - doesn't follow contemporary educational methods
 - anthropometric dimensions of furniture and children is in mismatch
 - this mismatch reflects to children's body positions, their growth and health.
- **Toys and playing areas:**
 - great teachers' enthusiasm and efforts
 - diversity of toys, games, different colours, materials...
 - interiors give the impression of potentially greater possibilities for the free, healthy and creative development of children.



4. CONCLUSION

Future efforts:

- encouraging further exploration of this topic and the design of new solutions
- furniture and equipment have to be integrated as sensory-didactic products, not only traditionally designed pieces of „four-legs-furniture“
- new solutions of sensory-didactic products for working and playing have to be an integral part of kindergarten living rooms in the countries worldwide.

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