



26th | ICCP 18,19 June 2012
Tallinn, Estonia

aida figueiredo
gabriela portugal
carlos neto

children's interaction
with outdoor
environment during
free play



The present study builds on an ongoing research plan, and combines:

Ecological Perceptual Psychology (Gibson, affordances theory),
Environmental Psychology
and Experiential Education (Laevers, well-being and involvement)



Contents

1. Study relevance
2. Research questions
3. Methodology
 - 3.1. Sampling
 - 3.2. Methodological procedures
 - 3.3. Categories
 - 3.4. Software used in qualitative analyse - Webqda
4. Results
 - 4.1. Behaviour maps
 - 4.2. Children's involvement and kindergarten's spaces



Study Object

- Interaction between children and outdoor environment during free play



Research Questions



1. In which areas of the kindergarten's outdoor space do children choose to play?
2. How are kindergarten's outdoor spaces organized and how do children perceive and use them?
3. Which are the levels of children's emotional well-being and involvement?

Methodology: Sampling

Kindergarten	Region
A	Coimbra
B	Coimbra
C	Aveiro
D	Aveiro



Methodology: Sampling



- 16 children
 - 4 in each kindergarten
 - 2 girls
 - 2 boys
 - **Age:** 4 years 0 months to 4 years 12 months

Methodology: Procedures

- Research register in the National Commission for data protection.
- Parent consent
- Observation
 - February to May
 - Group 4 children – 3 weeks
 - 9.00 to 12.00 a.m. in free play
- Register
 - Videos
 - Photographs
 - Field notes



Methodology: Webqda



Structural Simplicity

Nome	Nota	Tipo
Human Plano		Vídeo
Planal		Vídeo
Human Plano2		Vídeo



Methodology: Categories

Social Behaviour

- onlooker
- solitary
- parallel
- associative
- cooperative
- dialogue with children or adults
- conflict
- transition
- others

Cognitive Play

- functional
- exploration
- constructive
- dramatic
(individual and social)
- games with rules
- others

Physical Activity

- crawl
- run
- jump / skipping
- balance
- fall
- rolling
- lie
- carrying something
- manipulate objects
- digging
- climbing...

Material

Natural – clay, stems, sticks, sand, soil, water, stones, leaves,...

Loose – buckets, hoops, shovels, balls, strings, boxes, tires,...

Equipment

Fixed - trees, bushes, climbing plants, climbing frame, den, net to climb, slides,...

Moving – tricycles, cars,...



Methodology: Behaviour Mapping

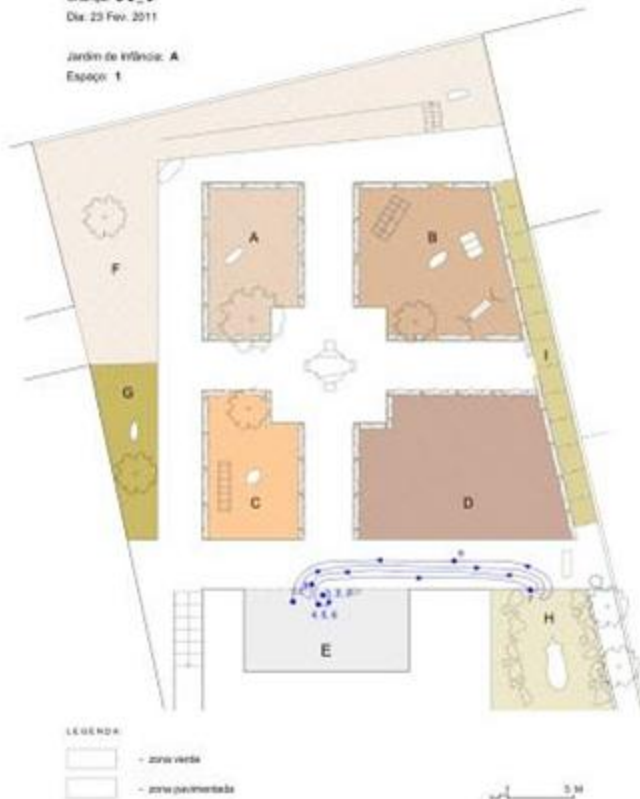
- Direct observational method
- Affords:
 - the location of subjects and measuring their activity levels;
 - behaviour's observation and associated built environment components and attributes;
 - behaviour's assessment linked to detailed physical characteristics of outdoor areas (Moore & Cosco, 2010)
- Basis on the theories of behaviour setting and affordances
- Contributions:
 - to create outdoor environments more conducive to children's informal play and physical activity.



Results: Behaviour Maps

Grupa: D 2_2
Dia: 23 Fev. 2011

Jardín de Infância: A
Espaço: 1



Grupa: I 3
Dia: 2 Mar. 2011

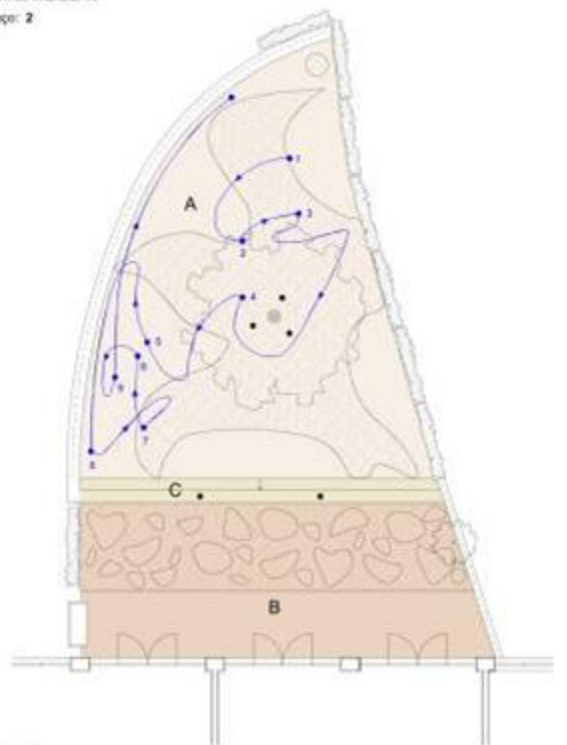
Jardín de Infância: A
Espaço: 2



Results: Behaviour Maps

Criança: A1
Dia: 18 Fev. 2011

Jardim de Infância: A
Espaço: 2

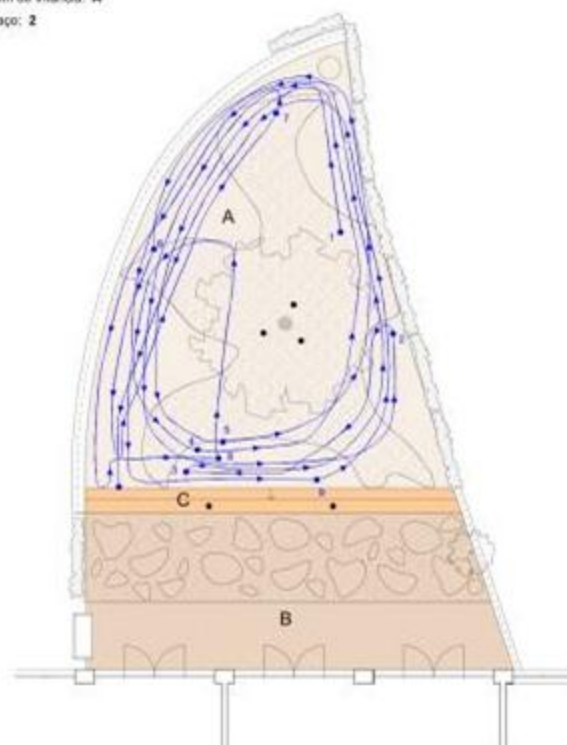


LEGENDA

- zona verde
- zona impermeabilizada

Criança: D2_3
Dia: 1 Mar. 2011

Jardim de Infância: A
Espaço: 2

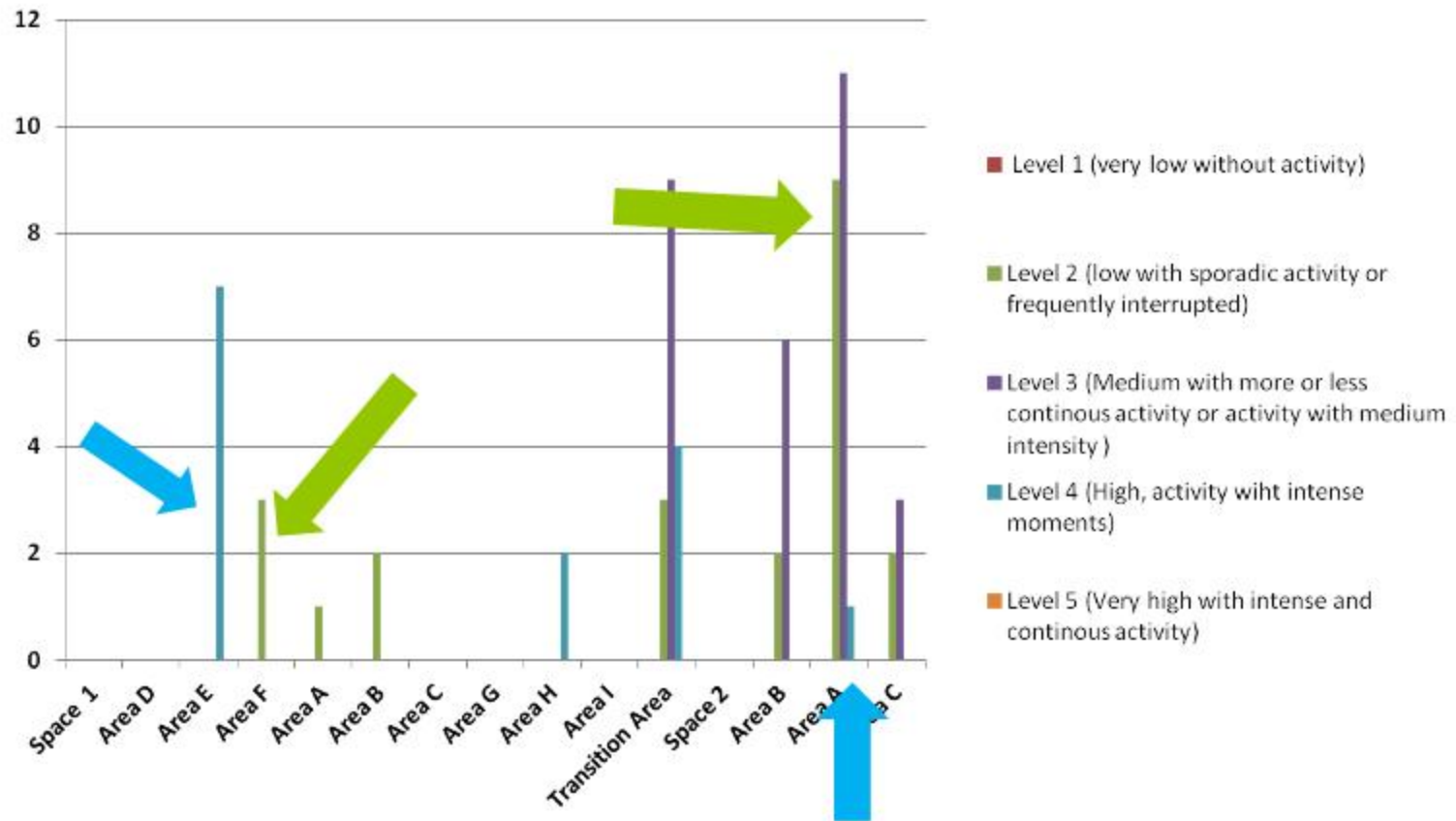


LEGENDA

- zona verde
- zona impermeabilizada



Results: Children's involvement and kindergarten's spaces



Kindergarten A | Space 1 and 2



Thank you for your attention



afigueiredo@ua.pt

