

The Translation of Play Learning Modalities into an Architecture of Schools



Larissa de Souza; Doris Kowaltowski; Daniel
Moreira & Pamela Woolner



1.

Education and Architecture

Eductional goals
& learning
experiences are
the **fundamental**
basis for **school**
design

Education and Architecture

How do we improve this relationship?

How do we understand this relationship?

How do we translate this understanding for the design process?



What should design involve?

Users and their relationships with each other as well as
space

A photograph of three young children sitting at a desk in a classroom, focused on writing in their notebooks. The child on the left is a young girl with dark hair, wearing a light blue dress with a colorful patterned trim. The child in the middle is a young boy with dark skin and dreadlocks, wearing a blue and yellow striped shirt. The child on the right is partially visible, wearing a pink shirt. They are all holding pencils and writing. A purple pencil case is open on the desk, showing various colored pencils. The background is a blurred classroom setting with a whiteboard and a window.

Educational Spaces Learning Modalities

18 Learning Modalities at School



1. Independent study
2. Peer tutoring
3. Collaborative work in small and mid-size groups (3-6 students)
4. One-on-one learning with teacher
5. Lecture format with teacher or outside expert at centre
6. Project-based learning
7. Technology based-learning with mobile computers
8. Distance learning
9. Research via Internet
10. Student Presentations
11. Performance and music-based learning
12. Seminar-style instruction
13. Collaborative and interdisciplinary learning
14. Naturalist learning
15. Social/emotional learning
16. Art-based learning
17. Storytelling
18. Learning by building – hands-on learning



Where is Play in all this?

Play learning modalities take into consideration the cognitive development of children, **based on visual, aural, reading and writing as well as kinesthetic sensory modalities.**

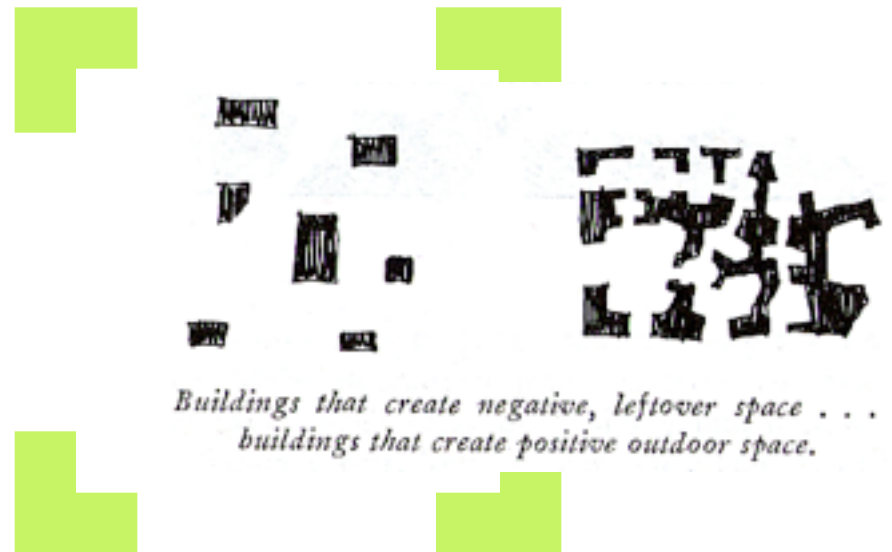
2. Placing Play Activities

The **physical environment** should (can) instigate and permit **play learning to be developed** under appropriate conditions

The background of the image consists of several hand-drawn architectural sketches in pencil. On the left, a hand holds a white marker, pointing towards a sketch of a building with a circular feature. Below this, there's a sketch of a structure with a grid-like roof and people. To the right, there are two more sketches of buildings, one with a person on a balcony and another with a person on a lower level. The sketches are interconnected by lines and circles, suggesting a conceptual design process.

Architecture can
support play
through
Design Patterns

Design Patterns?



A **design pattern** is the re-usable form of a solution to a design problem.

Age of play

Most of the literature on play relates to early childhood, **BUT** we focus on students from 6 to 17



32 Play types

Group 1

Playing essentially
with the body

Total: 10

e.g. RUNNING



Group 2

Playing with objects

Total: 11

e.g. CARD GAMES



Group 3

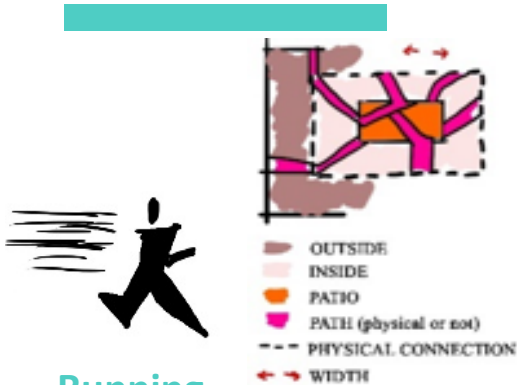
Playing with specific
materials and/or in
specific places

Total: 11

e.g. CLIMBING

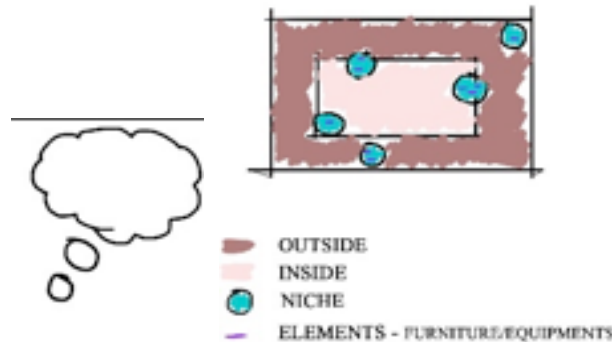


Group 1 – creating play design patterns



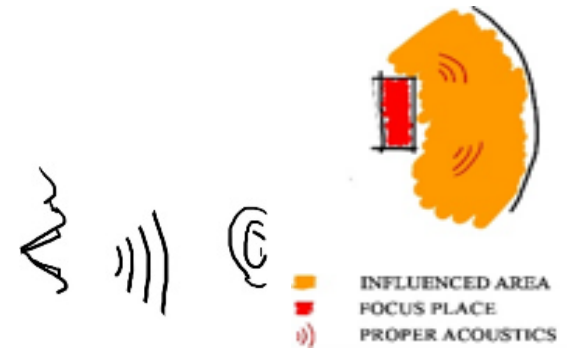
Running

Individual or Group 2-10
Active activity
Indoor or outdoor
Physical development
6+ years-old



Make Belief

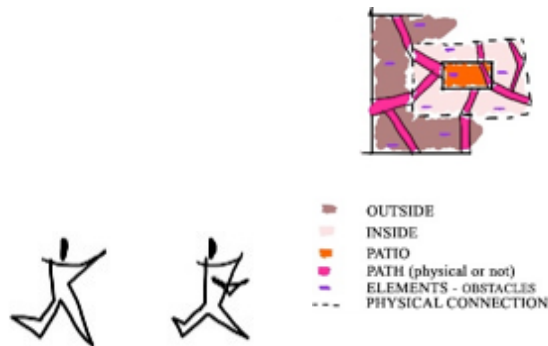
Individual or Group 2-5
Active/passive activity
Indoor or outdoor
Psychological development
6-10 years-old



Storytelling

Individual or Group 3-20
Active/passive activity
Indoor or outdoor
Psychological development
6+ years-old

Group 1 - examples



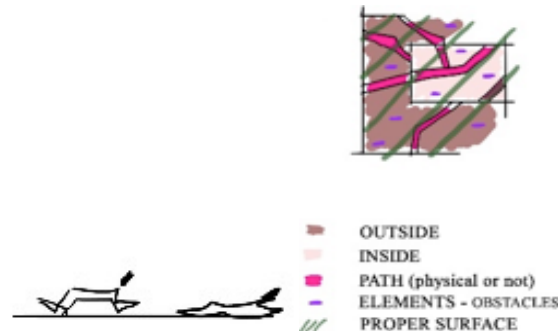
Cops and robbers

Individual or Group 5-10
Active activity
Indoor or outdoor
Physical development
6-12 years-old



Rhythmic exercise

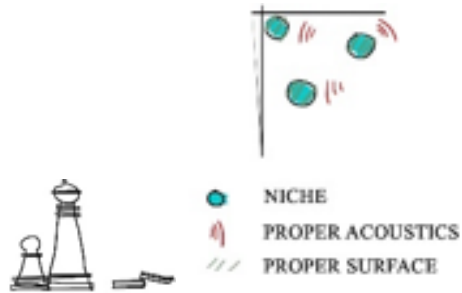
Individual or Group 2-20
Active activity
Indoor or outdoor
Physical development
10+ years-old



Creeping/crawling

Individual or Group 2-10
Active activity
Indoor or outdoor
Physical development
6+ years-old

Group 2 - examples



Chess/checkers board

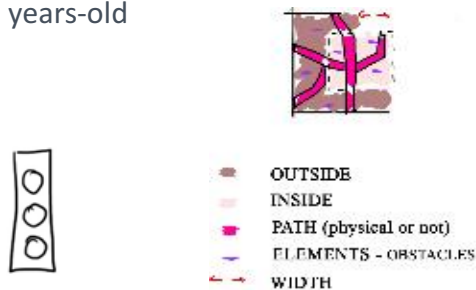
Group 2

Active activity

Indoor or outdoor

Psychological development

6+ years-old



Traffic play

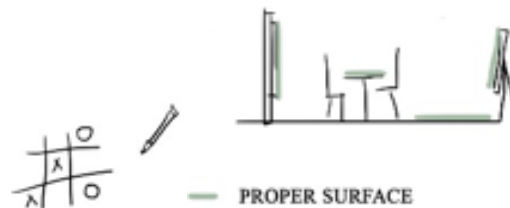
Individual or Group 2-6

Active activity

Indoor or outdoor

Physical development

6-10 years-old



Tic-tac-toe/drawing

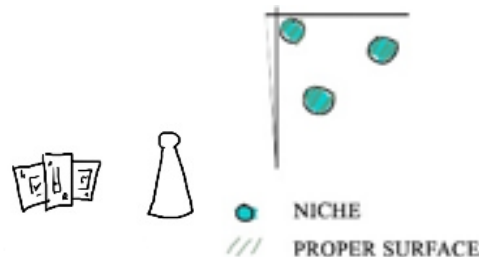
Group 2

Active activity

Indoor or outdoor

Psychological development

6+ years-old



Card/board game

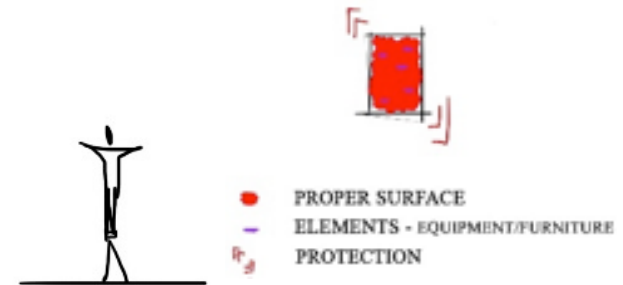
Group 2-10

Active activity

Indoor or outdoor

Psychological development

6+ years-old



Balancing/support weigh

Individual or Group 2-6

Active activity

Indoor or outdoor

Physical development

6+ years-old



Hide and seek

Group 2-20

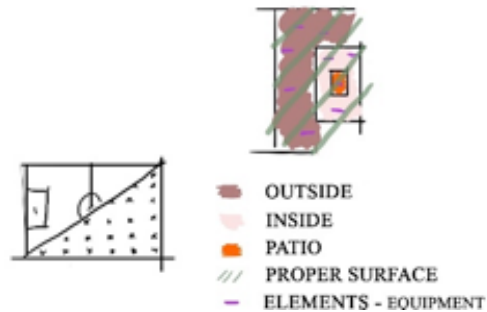
Active/passive activity

Indoor or outdoor

Physical development

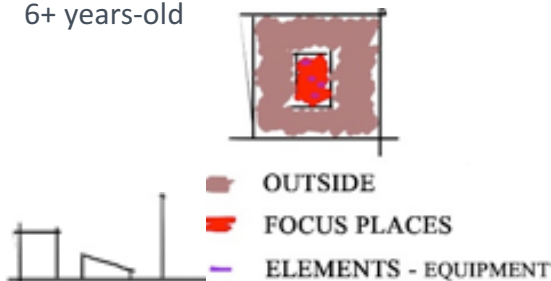
6-12 years-old

Group 3 - examples



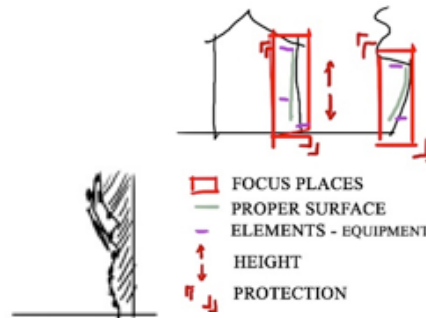
Formal games

Individual or Group 2-12
Active activity
Indoor or outdoor
Physical development
6+ years-old



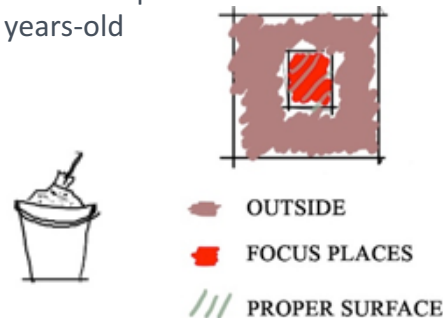
Exercise station

Individual or Group 2-5
Active activity
Indoor or outdoor
Physical development
8+ years-old



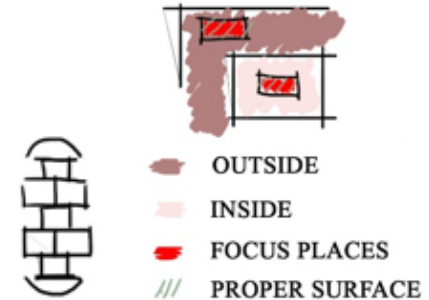
Climbing

Individual or Group 2-5
Active activity
Indoor or outdoor
Physical development
6-10 years-old



Sand play

Individual or Group 2-5
Active activity
Outdoor
Physical development
6-10 years-old



Hopschotch

Individual or Group 3-20
Active activity
Indoor or outdoor
Physical development
6+ years-old



Ball surfaces

Individual or Group 2-4
Active activity
Indoor or outdoor
Physical development
6+ years-old

3.

Lessons learned

Different **play activities** demand specific **architectural settings and props**

The background image shows several hands of different skin tones working together to assemble white puzzle pieces. The puzzle pieces are interlocking and form a larger shape in the center. Overlaid on this scene are four bright yellow L-shaped corner brackets, one in each quadrant, framing the central text. The text is white and centered, providing a clear message about the project's contribution.

Contribution:

Graphic representation of
play modalities
to
Support the Architectural
Design Process

Thanks!

Any questions?



You may contact us:

larissanegris@gmail.com

dkowaltowski@gmail.com

damore@fec.unicamp.br

Pamela.Woolner@newcastle.ac.uk