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
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.
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

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

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

**Chess/checkers board**
Group 2
Active activity
Indoor or outdoor
Psychological development
6+ years-old

**Tic-tac-toe/drawing**
Group 2
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

**Traffic play**
Individual or Group 2-6
Active activity
Indoor or outdoor
Physical development
6-10 years-old

**Card/board game**
Group 2-10
Active activity
Indoor or outdoor
Psychological 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

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

**Hopschotch**
Individual or Group 3-20
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

**Sand play**
Individual or Group 2-5
Active activity
Outdoor
Physical development
6-10 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
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