Why Transform Children’s Environments?:
The Example of Learning Landscapes
Research – Practice Partnerships
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KaBoom! play matters for all kids

William Penn Foundation
What do you hear?

Repeat after me
Now change the lens

Content

Collaboration (Following others)

Repeat after me
What’s going on here?
Change the lens!

- Communication
- Collaboration
- Perspective taking
- Content
  learning to learn skills: Planning
It is time to change the lens....

- On the way we think about learning and education – in and out of school

- On the way that educators, parents, and policy makers think about the social and academic value of an education fostered through play and active learning!
Some interesting facts

- We are entering a new era, a knowledge age, in which information is doubling every 2.5 years.

- We are leaving the information age, where getting the “factoids” was enough...

- Integrating information and innovation is key.
Author Daniel Pink writes...

The past few decades have belonged to a certain kind of person with a certain kind of mind—computer programmers who could crank code, lawyers who could craft contracts, MBAs who could crunch numbers.

But the keys to the kingdom are changing hands.

The future belongs to a very different kind of person with a very different kind of mind—creators and empathizers, pattern recognizers, and meaning makers. These people—artists, inventors, designers, storytellers, caregivers, consolers, big picture thinkers—will now reap society’s richest rewards....
Education Week article of September 28, 2017: 
*The Future of Work Is Uncertain, Schools Should Worry Now*

• 2013 – Oxford University study:
  “Fully 47% of US jobs are at risk of being automated in next two decades”

• 2014 – Pew Foundation Study:
  Interviewed 1900 experts – almost 50% agreed,
  “...envision a future in which robots and digital agents have displaced significant numbers of both blue- and white-collar workers.”
Which jobs will go?

“Even skeptics recognize that industrial robots and artificial-intelligence-powered digital agents have already made significant inroads into fields as diverse as manufacturing, health care, logistics, and customer service.”

• Especially vulnerable: anything that can be done by computers and robots, e.g., salesperson, accountants, bus drivers
• Less vulnerable: Those that can’t be automated!

Those that rely on communication, collaboration, content, critical thinking, creative innovation, and confidence
America’s institutions – even our economy and our mind set – are designed for the individualism of an *industrial economy, not a Lego world* (p. 38, Edersheim).

In Lego world, successful businesses function by having content areas and specializations that can be rearranged to help build new structures on a moment’s notice.

The watchwords? Flexibility and adaptability
A number of organizations are saying the same thing!

The Partnership for 21st Century Skills writes, “in an economy driven by innovation and knowledge...the ingenuity, agility, and skills of the American people are crucial to competitiveness. (Sept, 2008)

And the Learning Metric Task Force “presents key indicators for tracking progress in foundational skills (literacy and numeracy) as well as in knowledge and skills that go beyond these traditional indicators...to include “readiness to learn” in early childhood, skills and values for youth to be successful “citizens of the world.”
Are we preparing children for the workplace of tomorrow?

Our current model of education (and parenting) is founded on the idea that mastery of content is the key to success in life, but what counts as success has undergone a revolution in a Google and Wiki world where facts are at our fingertips.

The Traditional Way
Preparing Children in just:
Reading
Writing
Math

The 21st Century Way
Supporting children to include but go beyond content to be:
Happy, healthy, thinking, caring, and social so they become collaborative, creative, competent, and responsible citizens tomorrow.
But wait: Is the traditional approach to achieving success working?

- In the US, created test driven high stress educational systems

- Even led to what some in the military call a national security risk because students know narrow facts but cannot think critically or strategically, let alone navigate socially.

- But our neighbors to the north – Canada and Ontario are way ahead of us!
THE LEARNING CRISIS BEGINS EARLY and WITH LARGE DISPARITIES

By age 3, low income children in the U.S. are already well behind their middle income peers.

**LANGUAGE**

**SPATIAL SKILLS**

Source: Hart and Risley, 1995

Source: Verdine et al., 2014
Why should we care if children know more or fewer words?

- **Language helps you capture knowledge**, e.g.,
- **Language helps you engage in self-regulation**
- **Language in K - single best predictor of school achievement in all subjects at grades 3 and 5!**
  - **NAEP scores – vocab predicts reading comprehension**
  - **Language skill predicts health care outcomes**

You will be judged your whole life by
Indeed, the famous Finnish scientist and author, Pasi Sahlberg shows the US 2013 PISA scores from students who spent their entire academic career under NCLB.
Becoming Brilliant: What science tells us about raising successful children

asks parents, educators and policy makers to change the lens on how we define success for children growing up in the 21st Century!
Achieving that success will require nurturing a breadth of skills that we call The 6Cs – skills that take us from the sandbox to the boardroom – skills grounded in the science of learning.

The 6 C’s

- Collaboration
- Communication
- Content
- Critical Thinking
- Creative Innovation
- Confidence
But how do our children achieve these skills both in and out of school? Children can master these skills in part, through...
Where playful learning is defined as...

- **Free play**: child-led
- **Guided play**: child-led, adult scaffolded
- **Games**: Adult designed/scaffolded, set rules and constraints for play
- **Direct Instruction**: Adult designed/controlled, set constraints for activity

**Balance of child-adult involvement and constraints**
But is playful learning what we are doing in our schools?

And the emphasis on content to the exclusion of other skills is happening earlier and earlier...
Several recent pieces suggest that Kindergarten has become the new first grade

- Bassok et al. (2016) find that!
  - 80% of teachers say K-garten children should be reading – up 50% from 1998
  - Time for arts? Down 16%
  - Testing? Up. 29% test children at least once a month
This narrow view of success even pervades our every day activities: Check out how children can now learn during potty training!
“Could you at least lay off the flash cards until we see a head?!”
We are wearing out our youngest children by engaging in “drill-and-kill”

Testing for “factoids” in our assessments rather than real learning
But Where Do Children Spend Their Time?

80%
So...we developed ways to:

- Spur playful learning;
- Address educational disparities by putting installations in low income areas
- Partnering with cities, communities, and families

One way to get there: *Learning Landscapes*
The aim of Learning Landscape is to transform everyday places into opportunities for learning and play through partnering with cities, communities, and families.

*It’s time to try something new.*
*And a new speaker too!*
Playful Learning in the Community
Language & Interaction in the Community

We turned supermarkets into children’s museums!

In collaboration with Fresh Grocer
Language & Interaction in the Community

And in **South Africa**...
Parkopolis: The Life Size Board Game
Parkopolis: The Life Size Board Game
Parkopolis: The Life Size Board Game

Language Use

- Colors and Letters
- Planning
- Observation
- Prediction
- Patterns
- Measurement
- Reasoning
- Spatial
- Fractions
- Whole Numbers

Legend:
- Control
- Parkopolis
Playful Learning in the Community
WHAT IS URBAN THINKSCAPE?

3 LEVELS OF IMPACT


3. Attitude change linking play and learning.

Measured through pre- and post-installation surveys and observations...
Design Principles

**Integrated**

Designs are part of the urban landscape used in the day-to-day.

**Intriguing**

Designs must arouse curiosity of passers-by and encourage further exploration.

**Intuitive**

Good designs don't come with instructions. Both learning and play should happen organically.

**Interactive**

An urban thinkscape is both interactive, and fosters interactions.
Community Engagement
Before Installation:

Language Used at Control Playground (red) vs. Empty Urban Thinkscape Site (blue)
After Installation:
Language Used at Control Playground (red) vs. New Urban Thinkscape Site (blue)
Overall Effects of Urban Thinkscape on Adult-Child Language

Mean scores on Group Total Language subset of Observation Protocol
Playbraries
Playbraries
Playbraries: Social Interaction

Overall Social Interaction (Playbraries vs. Control Site)

- **Control Site**
  - Adult Interaction Score: 8.2
  - Child Interaction Score: 8.4
  - Adult/Child Group Interaction Score: 16.6

- **Playbrary**
  - Adult Interaction Score: 8.4
  - Child Interaction Score: 10.1
  - Adult/Child Group Interaction Score: 18.5
Playbraries: Tech Use

Technology Use (Playbrary vs. Control Site)

- **Children who used technology (%)**
  - Playbrary: 5.4%
  - Control Site: 20.0%

- **Adults who used technology (%)**
  - Playbrary: 13.5%
  - Control Site: 20.0%

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<thead>
<tr>
<th>Adults who used technology (%)</th>
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Reflection

- Learning Landscapes speaks to the educational issues of today

- Lessons from across the Learning Landscapes initiative
  - Importance of city, community, and family partnerships
  - Balancing best practices with opportunities for innovation by individual partners
  - Proof of concept → scaling
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