Unearthing Creativity

International Boys’ Schools Coalition
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Boys as Creative Builders and Learners: The Cubby House Project
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Creativity – evident in the welcome to the classroom

The Context
An integrated unit of inquiry on Homes

Central idea: All people need a home that provides safety, shelter, water, food and a sense of belonging.
Prerequisites

1. Foster creativity within constraints
   - Thinking skills
2. Facilitate a wide range of learning outcomes
   - Design technology
   - Literacy & Numeracy
   - Social skills
   - Communication skills
   - Self-management skills
3. Promote opportunities for play

Defining Creativity

Three key terms:

1) IMAGINATION
2) CREATIVITY
3) INNOVATION

Ken Robinson, OUT OF MINDS: learning to be creative
LONDON BUSINESS FORUM
http://www.youtube.com/watch?v=NtnRaa7AgLs&feature=related

Defining Creativity

1) IMAGINATION

- the key to everything!
- what is distinctive about humanity
- the ability to step outside of your current space to bring to mind things that aren’t present to our senses

Defining Creativity

2) CREATIVITY

- putting your imagination to work
- the process of having original ideas that have value

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Defining Creativity

3) INNOVATION

- the process of putting good ideas into practice

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Individual Constructions

Creativity and problem-solving: own models

The boys decided on the criteria for their model home. It should provide:

- Shelter
- A place to cook
- A place to sleep
- Windows
- Doors

“I wanted to have a flat roof on my home.”

Jeremy
“I wanted to have a sloping roof on my home.”

Sam

Discuss

How do you think the teacher ensured that every boy’s model was different?

Ayush’s ideas: “My house is modern, my house is new, my house is cool, my house is called Lodge”

Differentiation
Individual homes

John posed a question:
• My house has a balcony but there are no posts, how does it hold up?

• A builder was invited into the school and he showed John and the other boys the ‘cantilever principle’. John then went on to build his house with a balcony

Reflections

The boys reflected on how they solved problems that arose:

“You think of a different way that might work.”

“Experiment with new ways.”

“You could ask an expert, like an engineer, for help.”

“Just give it a go!”

The Group Project
The boys’ inquiry questions

“How do buildings stand up for a long time?”
“How do the walls stay up?”
“How do balconies hold up?”

Inviting everyone’s ideas

Edward’s ideas: “A want to attach a light hanging from the roof inside” and “attach a door bell”
He also writes: “We will work as a team”

Thomas’ ideas: “I hope the tallest boy should fit” and “The roof is made of wood”
Planning together

Mathematical inquiry

- The boys decided that the height of the door had to be the height of the tallest boy
- The boys then realized that they had to measure everyone’s height
- With guidance from the teacher they did this and worked out who was the tallest
- Throughout the year, as the boys grew taller, this was a great mathematical tool for them to make comparisons

Showing creativity – solving the problem of the height of the door

- Authentic, real-life mathematics

Voting on the number of doors and windows

4: We had to vote for
1. 2 windows or 1 door
2. We had 2 windows and
1 door and one suite
with nothing.
Plans were drawn up

- Each year the cubby houses were built out of different materials: wood, cardboard, tissue boxes

Building a cubby out of wood

Working with teacher guidance
Observing each other – learning new skills

- “James knew how to hammer in the nail without hitting his finger so I watched him”. Sam (6 years)

Critiquing the cubby house

Teams of builders

Building a cubby out of tissue boxes
The problem posed was a hole in the “bricks”

Solving the problem

Nick’s writing about solving a problem

Our cabin

We made a cabin.

We made one step.

Then Mr. Body

Came up with a
trick. They
taped a round

with a rounder.

Next morning, everyone
taped.
Problem solving and creativity

- When children pose and solve problems they are being creative.
- To solve a problem often requires not only creative thinking but creative action.

Working together

- “It was the only time in my whole life that I have done real wood work to make a building.”

William (6 years)

Self-assessment

Reflection: get boys talking and writing about their feelings and their creative solutions during conflict resolution.
Builder’s inquiry box

When a team was building, others were able to play!

Mapping the Learning

Assessment data: Intellectual understanding

Type of learning

Boy's comments during a brainstorm
- We learned about brick patterns
- We learned how to make things strong
- Making the walls straight
- Answering my questions

Design Technology Skills
- Measuring to make sure things fitted
- Making things level and using the spirit level
- Sorting tissue boxes into groups
- Using the right resources to stick things together
- Using tools carefully and safely

Mapping the Learning

Assessment data: Social Skills

Boy’s comments during a brainstorm
- Using our time well
- Sharing ideas and discussing them
- Compromising
- Working for your team
- Working together as a team
- Working with other boys and teachers
- Working as a team to be able to do something you couldn’t do by yourself
- Voting to make decisions as a group
- Compromising – changing our ideas – accepting ideas of others
- Respecting the ideas and opinions of others
- Solving problems
- Taking through a problem
- Understanding that all jobs need to be done – some may not be as exciting as others
- Accepting other people’s ideas
- Taking care with our construction
- Encouraging others to take care
- Speaking clearly
- Listening carefully

Creativity continued in socio-dramatic play

“I love the cubby because you can turn it into different things and play restaurants or other games with your friends.”

Michael
Sometimes a place to work!

“I really enjoyed putting different things in the cubby. It was great fun decorating it for Christmas with Mrs Brook.”

Zachary

Experimenting with new ways

• “Experimenting with new ways” is innovation

The teacher created a climate of
• Inquiry/creativity
• Risk-taking
• Trying out solutions to problems
• Expressing feelings and resolving conflict

Acknowledgements

• We would like to acknowledge the teacher who led this Cubby house Project, Mrs. Leeanne Brook
• We would like to acknowledge Prince Alfred College for taking a risk with authentic projects that engage boys

• If you would like further information about this project see Chapter 8 in the book: Ways to Learn Through Inquiry: Guiding Children to Deeper Understanding
Each of the 8 chapters features research done in a boy’s school
To be published in August 2012.
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