

## 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=NtnRaa7AqLs&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

Ken Robinson, OUT OF MINDS: learning to be creative  
LONDON BUSINESS FORUM  
<http://www.youtube.com/watch?v=NtnRaa7AqLs&feature=related>

## Defining Creativity

### 2) CREATIVITY

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

Ken Robinson, OUT OF MINDS: learning to be creative  
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<http://www.youtube.com/watch?v=NtnRaa7AqLs&feature=related>

## Defining Creativity

### 3) INNOVATION

- the process of putting good ideas into practice

Ken Robinson, OUT OF MINDS: learning to be creative  
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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

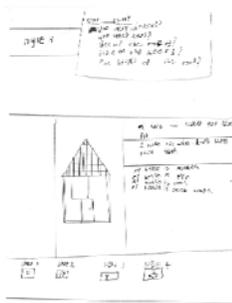
*"I wanted to have a sloping roof on my home."*

Sam

### Discuss

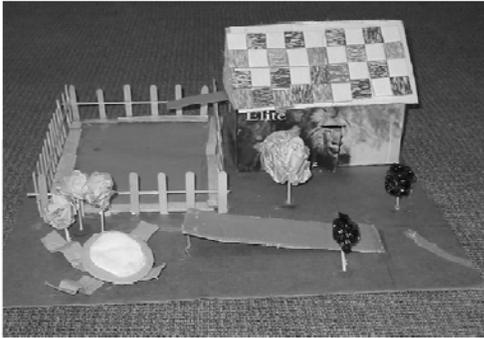
How do you think the teacher ensured that every boy's model was different?

**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



## Planning together

Our cubby

How many windows?

How many doors?

Size of the room?

Height of the door is 1.4 metres

## 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

The door should be 1 metre and 37 centimetres  
 is going to be measured by the tallest boy  
 and it is 37 centimetres

## Voting on the number of doors and windows

4. We had to vote for  
 1 or 2 windows or 1 or 2 door  
 we had 2 windows and  
 1 door and one side  
 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)



### Teams of builders



### Critiquing the cubby house

Dear boys,

I have inspected your work on the cubby house and overall you have done a very good job.

I noticed, however, that in some cases there are a few too many nails in the joints.

The split in the timber where the window was fitted is unfortunate but was no fault of yours. If you fit the pieces onto the window frame that I have given to your teacher it will make the window frame level with the side and strengthen the joint.

You can be proud of the way you have read the plans and worked out how to build the cubby so far. When you have modified the window frame then start fitting the roof timbers.

I am sure you will soon have it finished and have a cubby house you have built yourselves that you can all be proud of.

You are evidently a smart team of builders.

Mr. Munter

### 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 cubby.  
We made a cubby.  
we had one big  
problem. It was a  
hole in the wall  
that lets in the  
cold air. No body  
came up with a  
idea. Only I had  
had and I came up  
with a idea. It  
was methis cuty  
tape.

### 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

To be part of the Cubby Building Team I need to think about things I must do to work well with others.

- Listen Without Interrupting
- know how to be build cubby
- Listen to the person speaking
- Don't be silly
- have fun
- Work as a team
- look at the plans
- to make a quiet place
- help others
- try again if you make mistake
- take turns
- share the tools
- get messages with cards
- apologize to people
- they respect others life



Reflection: get boys talking and writing about their feelings and their creative solutions during conflict resolution

Cubby Reflections  
 During the building of our indoor cubby I learnt:  
 how to share when I am  
 silly angry when Billy  
 took my tissue boxes  
 that was when I was  
 angry I talk to calmly  
 and work it out with  
 Billy. I did so with  
 how to cooperate when

## 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**
- Cooperating
- Waiting for your turn
- 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
- Talking 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.

Go to <http://store.ibo.org> to register your interest.