

# Mirror Anamorphosis – Large

(Exhibit became *Distorted Mirror: Hopscotch*)

Geometry Playground

Formative Evaluation

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2007

THIS IS **NOT** A DEFINITIVE FINAL REPORT

FORMATIVE evaluation studies like this one often:

- **are conducted quickly**, which may mean
  - small sample sizes
  - expedited analyses
  - brief reports
  
- **look at an earlier version** of the exhibit/program, which may mean
  - a focus on problems and solutions, rather than successes
  - a change in form or title of the final exhibit/program

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*Exhibit prototype*

## Background

Large Mirror Anamorphosis is an exhibit prototype for the Geometry Playground exhibition. A fun whole-body exhibit which allows visitors to experience and observe how a large cylindrical mirror (prototype used a mirrored trashcan) changes shapes and patterns to look “right” in the reflection.

## Goals

The goal of this evaluation is to:

- Observe visitors' experiences with cylindrical anamorphosis.
- Start to tease apart which images visitors like or dislike.
- With gender equity in mind, start to learn about image preference for boys and girls, adults and kids.
- Record visitor questions about what they do and see at the exhibit.

## Methods

Informal cued-conversations with visitors in the prototype area on the museum floor on November 10, 2007. 10 cued interviews were conducted and the order that the visitors saw the images was rotated throughout the day.

## Findings

### Overview

- All visitors were interested to see more than one image and how it transformed in the mirror.
- Visitors got a sense that what they were seeing in the mirror was affecting the curves and straight lines.
- The favorite images were the soccer ball, the square-triangle and the arrow-line. In each case the visitors felt surprised about the results.
- The least favorite images were the soccer ball, the formula, and the words "geometry playground." The reason visitors cited not liking the soccer ball was that they already knew what it was. The words/formula felt less exciting to the visitors.
- Given the small sample size, it wasn't clear that was a difference in preference between males and females, nor between kids and adults.
- The visitors were interested in what was going on and requested more information about the transformation.



*Exhibit detail – straight and curved*

## Next Steps

- Discuss the findings with the team and discuss whether or not we want to move forward.
- Discuss what additional images we might want to pursue.
- Make a paper prototype with the real mirror and continue to talk to visitors.

## Appendix - Instrument

**Mirrors** (prototype with 5 designs and trashcan)

Nov 10, 2007

Goal: Cued interviews, get a sense of what people make of the cylindrical anamorphosis, which ones they like, which ones they don't like, how they work for girls and boys, adults and kids. What questions they ask.

Order:

\_\_\_ geometry playground \_\_\_ square/triangle \_\_\_ formula \_\_\_ arrows \_\_\_ soccer ball

F Age 5-6 \_\_\_ 7-9 \_\_\_ 10-12 \_\_\_ 12-17 \_\_\_ 18+ \_\_\_

M Age 5-6 \_\_\_ 7-9 \_\_\_ 10-12 \_\_\_ 12-17 \_\_\_ 18+ \_\_\_

Group make-up:

Hi, my name is xxxx and I work here at the museum. Today we are talking to visitors about a new exhibit we are building and I was wondering if you had a few minutes to speak with me? Thanks.

Notes/Observations:

geometry playground:

square/triangle:

formula:

arrows:

soccer ball:

1. So, this is an exhibit that we are planning to include in an exhibition we are calling, Geometry Playground. Please take a look in the trash can here. Can you tell me a little bit about what you notice? (ask the kids first)

2. I can show you how the others work. Would you like to see more? Yes / No  
[If no] Can you say a little bit about why not?

**Show the visitor all 5 illusions** (Ask #3-4 if they see 3 or more.)

3. Now that you have seen all 5, could I ask you to pick your favorite. \_\_\_\_\_  
Can you say a little bit about why you liked that one best?

4. And if I asked you to pick the one you liked the least, which one would that be?  
Can you say a little bit about why you like that one least?

5. When you look at these, are you curious about anything or do you have any questions about it?
6. Is there anything you'd like to be able to see in the mirror?
7. Some visitors tell us what they see is surprising, would you say that what you see in the mirror is surprising for you? Yes / No  
Can you say a little bit about why it is (not) surprising?
8. Thanks, we are all done. Anything else you would like to share with me about this?

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