



**Assessment in Your Makerspace:
Measuring What Matters**

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Slides at: <http://bit.ly/fontblog>
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Today we'll ...

- Talk about strategies for assessment of open-ended projects that scale up as learners become more skilled
- Take those strategies for a test drive

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But first ...

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News from the White House!

- ctemakeoverchallenge.com
- Bit.ly/white-house-2016-making
 - Nat'l Week of Making 6/17 - 6/23/2016
 - Nat'l Maker Faire
 - CTE Makeover Challenge
 - Perkins recommendation
 - Maker Promise

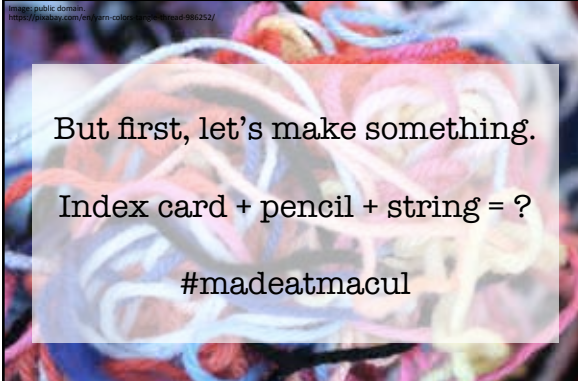
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Some context!
For us, making prioritizes:

- Process over product
- Agency over teacher-directed work
- Choice over following directions
- Experimental mindset over “failure if it doesn’t work the first time”

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But first, let’s make something.
Index card + pencil + string = ?
#madeatmacul

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“Dogfooding”

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Look around at what others made ... what do you notice?

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Whose work stood out to you as being great?

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What criteria did you use to determine whose was best?

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And how would you advise the others to get better, based on that criteria?

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If we were to **repeat** the exercise and **share** those criteria, what do you think might happen to the **range** of ideas we saw?

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It's really **hard** to compare
open-ended work, isn't it?

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But what gets assessed gets
attention, right?

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So how do we **assess** in our maker efforts?

Maybe we **don't** measure what they **make**.

Maybe we measure their **thinking** instead.

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Seven Strategies

1. Create a frame inside which making takes place
2. Process Journals
3. Stand-Up Meetings
4. Title: Subtitle
5. Gallery Walking
6. Artist Statements
7. Portfolios

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#1 Design Challenges

- Common challenge for each student
- Open options for completion to give space for agency and choice
- Agreed-upon metrics for success
- Built on curriculum learning
- Preceded by direct instruction and/or interspersed with mini-lessons as needed
- Time limits serve to motivate creativity within constraints



#1 Design Challenge Seeds

- Design an **invention** that would fix _____
- Create a **prototype** that would _____
- Research and identify a **solution** that _____
- Create a **stamp/statue/logo/mascot** for _____ based on what you know about _____



#1 Design Challenge Examples

- We have studied how _____ influenced society by harnessing/inventing _____. What new global challenge do you see needing to be solved? Create a **prototype** for your solution.
- People with Parkinson's have difficulty eating soup because their hand shakes. **Research existing solutions** and design an alternative ...



#1 Assessment in design challenges can come from ...

- Product pitches
- Advertising copy for product
- Infomercials for product
- Any of the other techniques to come

#2 Process Journals: Options

- Keep text minimal: take <5 min/day
- Daily index card: hole punch
- Standalone Instagram account w/captions
- Document process as it goes to better reflect later
 - Photos, Video, Audio, Composition Notebooks
 - Tip: Time-lapse/slo-mo features on iOS camera
 - Sway.com
 - Flickr.com
 - Blogs
- Daily quick write prompts:
 - Today I worked on _____
 - Today I learned _____
 - Next time I will _____
 - Etc.

#3 Stand-Up Meetings

- 30-second report-outs
- Stay standing to keep the meeting short!

#4 Title: Subtitle

artistic: explanatory

creative: factual

Taking Flight: Paper Airplane
MonkeyMatic: A New Toy Using Centrifugal Force
Origami Leia: A New Star Wars Toy

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#4 Title: Subtitle

(artistic: explanatory)

(creative: factual)

Tweet a photo of your index card creation.
1. Title & subtitle it.
2. #madeatmacul

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#5 Gallery Walking

- ½ present, ½ view
- Consider half-page “Hamburger-style” table tents
 - Possible content:
 - What is the object?
 - What does the creator want the viewer to notice in particular?
 - I am proud of _____.
 - Keep to one sentence
 - In-process or after project completion

#5 Maker Gallery Walk Guidelines

- Lend support, not critique
- Ask questions
- Listen intently
- Give advice only if asked for it

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#6 Artist Statements

#6 Artist Statements Can Convey

- Purpose/intent
- Process (if succinct)
- Inspirations
- Unpacking of your thinking about the product you made

Great resource for your teaching:
<http://www.artbusiness.com/artstate.html>

#6 Artist's Statements at multiple points in process

Formative Assessment

- "Ticket out the door"
- Index card
- A few sentences or a paragraph
- Cloze sentences:
 - "The visuals I chose are meant to _____."
 - "I chose this medium because _____."
 - "The visuals in my slide deck are meant to _____."
 - "I'm including this primary source image because _____."

Summative Assessment

- Multiple paragraphs
- Extended thought
- Reflects on the finished product and on the process



Levick, Joel. The Collecting Series of photographs. Thomas Welton Stanford Art Gallery, Stanford

Artist's Statement

This group of pictures was completely unexpected. I arrived in Italy last autumn as a Visiting Artist at the American Academy in Rome, with plans for a project involving fascist-era baroque architecture in Ostia, and perhaps something centered on gardens in the funky postwar outskirts of Rome. But on our first day there I made my own pilgrimage to the Pantheon, one of my favorite places to be in Rome, and usually a primary destination.

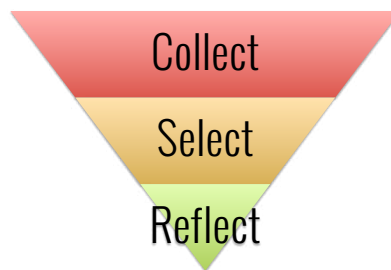
A constant stream of visitors enters and exits the Pantheon all day. For the most part, they have their recording devices held high over head as they enter, taking the old-fashioned step of looking at something first, then photographing it. No, these pilgrims have their memories immediately funneled out to digital data storage, safely uncorrupted for retrieval at some later date. There was something charming about it, something universal and soothing, not comical exactly but focused and serene, a hint of the sublime in an otherwise mechanized world. Everyone gazing vicariously into the oculus, the eye of God. I fell into a rhythm, studying the scene of my own camera and waiting for the moments of capture and deep concentration, moving invisibly from one subject to the next. I was not in my own rapture, my mind quiet but for the occasional visit from the ghost of Walter Evans, whose pictures of subway riders during the early 1940s were never far from my thoughts.

The 45 photographs in this exhibition were made on four days in October 2012 with the Sony Nex-7 digital camera. I want to thank my wife Terry Hagan for her love and thoughtfulness, Daniel Levick for his advice and assistance in many aspects of this exhibition, Liz Colvett, Craig Wilson, Elizabeth Schmitt, Gail Wright, the Stanford University Department of Art and Art History, and the American Academy in Rome.

Joel Levick, Robert and Ruth Halperin Professor in Photography, Department of Art & Art History, Stanford University

Dedicated to my friend Richard Dawkins.

#7: Portfolios: Process and/or Product



Nigudula, David. 2010. "Digital portfolios and curriculum maps: linking teacher and student work." In Curriculum 21, ed. Heidi Hayes Jacobs. Arlington, VA: ASCD.

In summary

- Careful assessment preserves students' wild thinking, minimizes "safe making so I get an A"
- Careful assessment fits in parallel with making, doesn't overpower it
- Careful assessment shows that kids aren't just "messing around" and "wasting time"
- Join us for 3 days of free PD this summer!
 - Alpena, Ann Arbor, Benzonia, Centreville, Coopersville, Frankenmuth, Houghton Lake, Pickford, W. Iron
 - One day workshop for K-8: Saginaw
 - Made possible in part by IMLS R/E-05-15-0021-15

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Questions?

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