Considering the Role of Teacher Education in Fostering a More Generous Attitude Toward Applied Skills and Trades
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CSSE PRESENTATION
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Discussion How might we introduce K-9 in-service teachers to *Making in their classrooms?*
November 2013: Pilot Project

Event 80 educators, Ministry Reps, Industry Reps, Teacher Candidates, Pan-Campus Faculty, ILC Advisory Board
Today: Taking Making into Classrooms

**Four Phases** Research-informed Immersive Professional Learning (RIPL) Cycle
“CREATIVITY IS INTELLIGENCE HAVING FUN” ~ Einstein

- There is no entirely free play. Play & work integrated together in curriculum.
- Play helps learning when goals are given.
- Play and work cannot be separated.
- The overarching goal is the same, “for the sake of the activity”.
- The difference is that play focuses more on the process, while work on the results.

~ John Dewey, 1910

Fun is good.
- Dr. Seuss

http://weekendcollective.com/30-times-dr-seuss-made-us-feel-warm-fuzzy/2/
WHAT DO WE KNOW ABOUT LEARNING?

- Investing in a growth mindset (**not yet**) builds brain plasticity (ability & intelligence) ~ Carol Dweck, 2012


- Tinkering, thinkering & grappling (mistakes, failure wrestling) foster the development of brain synapses [http://www.youcubed.org/](http://www.youcubed.org/)
Question How might the planned disruptions of ‘every day’ thinking and localized practice in a RIPL cycle provide opportunities for more mindful communication amongst educators?
Mindful Communication: key qualities of a mindful state of being

Langer, 2014, p. 64

- Creation of New Categories
- Awareness of more than one perspective
- Openness to new information
Findings Participants ‘lose themselves’ in the design and tinker phases — relax their need to rush to a solution as they problem find
Question Given such [mindful, empathic] communication opportunities, how might educators begin to *problem find* rather than rush to *problem solve* and begin to create open paths to new ways of thinking and acting?
Findings The thinker phase as critical friends collecting ideas and considering other ways of doing and being through the design charrette. This immersion into the process appears to open creativity and imagination and supports innovation and design iterations.
Question How might growing educators’ understanding of *problem finding* support classroom activities to engage K-12 students curiosity, imagination, innovation and interest in Applied Skills and Trades?
Findings while introducing K-12 educators to *designerly ways of knowing* in a RIPL cycle, they may consider the integration of Applied Skills and Training within curricular areas often considered the sole domain of academic studies.
Designerly ways of knowing and communication

Different from scientific and scholarly ...

... as powerful as other methods of inquiry

... applied to its own kinds of problem

Archer, 1984, p. 17
Design Challenge

... underpin the ways in which educators creatively and collaboratively tackle ill-structured problems...

... open-ended, scenario-based...

... multiple solutions to real concerns...
Next Steps: Taking Making into Classrooms

ADST Applied Design, Skills and Technologies
Developing Skilled Workforce
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