Sharing our learning

Staff collaborators who work with the Centre for Inspiring Minds regularly attend external events – lectures, conferences, workshops and meetings – where they learn about innovative approaches to teaching, learning and school management. These summaries have been developed to share our learning with the wider school community. If you have questions or comments about this event summary, please contact the contributor named at the end of the document.

Name of the event: **Design Thinking and Making Across the Curriculum Workshop**

Date of the event(s): Saturday, 22 November 2014

Location of the event: Acropolis Conference Centre, Nice, France

Organizer(s) of the event: ECIS November 2014 Conference

Presenter(s): Elizabeth Perry, Mariam Mathew and Christine Wilson from the American School in London

**Descriptive Summary** (What happened and what was learned?)

In the workshop, the presenters provided a hands-on introduction to Design Thinking as a methodology for innovative problem solving, and then provided an opportunity to discuss ways participants could use this in their own curriculum.

Design thinking was developed at Stanford University. It combines creative and analytical approaches; a process for creating user-centred solutions to problems that matter.

The presenters shared examples of how they have used Design Thinking principles at The American School in London.

- Lower School students learn and practice the Design Thinking process in an after school Inventors Club.
- Middle School students participate in a classroom-based Design Technology activity called Marketplace Mania. Through the activity, student creativity is encouraged as students develop skills in entrepreneurship. Students decide what types of products or services they want to sell according to their own interests, hobbies or aspirations.
- High School students, through independent study projects, develop software applications for clients. Through the program, they have the opportunity to consider the needs of the ‘clients’ in their development process by using Design Thinking principles.

This sequence of activities illustrates the stages (non-linear) of the Design Thinking process.
The format of the workshop was as follows:

1. **Empathize**
   - Participants formed two design teams (groups of six people).
   - The design challenge was introduced: Design a product or experience that improves communication and collaboration between teachers in a school.
   - A scripted interview guide was introduced.
     
     'Hi, I’m ____ from ____. I want to learn about you and what you like to do so that we can design something meaningful to make your life better. We think it’s important that teachers design things so that we don’t always have to use things designed by other people, and we’re really grateful for your time.
     
     - Tell me about what you like to do during the school year.
     - Tell me about a time when you were connected with another teacher. What happened?
     - What annoys you in your day-to-day teaching life?
     - Do you usually prefer things and experiences that are: time-tested or innovative, fun or serious, sparkly or plaid, casual or formal, energetic or laid back, trendy, spontaneous or well-planned, loud or quiet, unexpected or familiar, summer or winter, schematic or emerging, Atlantic or Pacific?’
   - Design team members used the interview guide to interview a member of the other team.

2. **Define**
   - Design team members used a ‘mad-lib’ type template to create a narrative based on what they had learned from the interview with the person from the other team.
     
     ‘This is a short story about ____. ____ is a(n) ____ who needs (a way to) ____ and wants (the experience to be) ____ because ____ and other people don’t necessarily realize this or understand its importance.’
   - Design team members shared their stories with their own design team (six stories).

3. **Ideate**
   - Design teams brainstormed solutions/ideas that addressed the design challenge while addressing the needs of the people they interviewed. The focus is on quantity of ideas – not quality. The ideas are not evaluated, they are recorded on post-it notes and posted.
   - The design team meta-planned the post-it notes, grouping similar solutions/ideas.
   - The design team discussed the groupings and decided which solution(s)/idea(s) to take forward. The discussion of individual ideas followed a ‘yes – and’ format; NOT a ‘no – but’ format.

4. **Prototype**
   - The design team had 15 minutes to build a physical representation of the solution/idea using craft materials a ‘conceptual prototype.’

5. **Test**
   - The design team presented their solution/idea to the people the other team – the clients
   - The clients responded to the solution/idea with ‘I like, I wish, I wonder’ statements.

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**Evaluative Summary** (What were the strengths and weaknesses?)

**Strengths**
- Introduces a form of the design process that focuses on the user/client needs (cultivates empathy) and collaboration (cultivates team working and consensus-building skills).
- It is a form of project-based learning that can be designed to address a range of learning outcomes.
- Can be used across a wide age and ability range.
- Active engagement in the design process is fun – and provides opportunities for developing a range of cognitive abilities and non-cognitive skills.
Challenges

• Can be resource intensive – although junk materials can be used.
• Can require a long period of time to use the process from start (problem identification) to finish (production).
• May require a specialist space, which addresses potential health and safety concerns without inhibiting creativity.

Interpretive Summary (How can we apply what was learned?)

The potential uses of this methodology includes design technology, business studies, extra-curricular clubs and enterprise initiatives among others.

The Design Thinking process also can be used to generate creative approaches to action research questions, which address student needs and involve the development of innovative approaches to teaching and learning. I especially like the idea of starting with the interests, capabilities and needs of the learners when designing the intervention. I think that a ‘Design Thinking Boot Camp for Aspiring Action Research Collaborators,’ similar to the ones created for designers by the Stanford could introduce an element of fun and high-energy creativity to the action research design process.

Resources (Where to go for more information?)

The following resources were provided by the ASL presenters:

• Design Thinking and Making Across the Curriculum
• Design Challenge and Questions
• User Story
• The Art of Tinkering
• Make Space: How to Set the Stage for Creative Collaboration
• “Teach Your Students to Fail Better with Design Thinking,”
• http://eric.ed.gov/?id=EJ982832
• https://www.youtube.com/watch?v=W1h5L_0fz8
• http://www.designtinkingforeducators.com/
• http://dschool.stanford.edu/dgift/

Organizations:
http://dschool.stanford.edu/
http://dschool.stanford.edu/use-our-methods/

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