

MODES DE LA CONNAISSANCE | FORMAS DE CONOCIMIENTO  
WAYS OF KNOWING

# IB CONFERENCE OF THE AMERICAS 2014

WASHINGTON, DC • 10–13 JULY



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# **Engineer a better future: How human-centered design thinking connects with Units of Inquiry**

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## Tuning in





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# Purpose

- Inquire into how the *human-centered design thinking process* can support the PYP in developing internationally-minded citizens who can compete in tomorrow's job market.

(IB + STEM = ?)



# Today's game plan

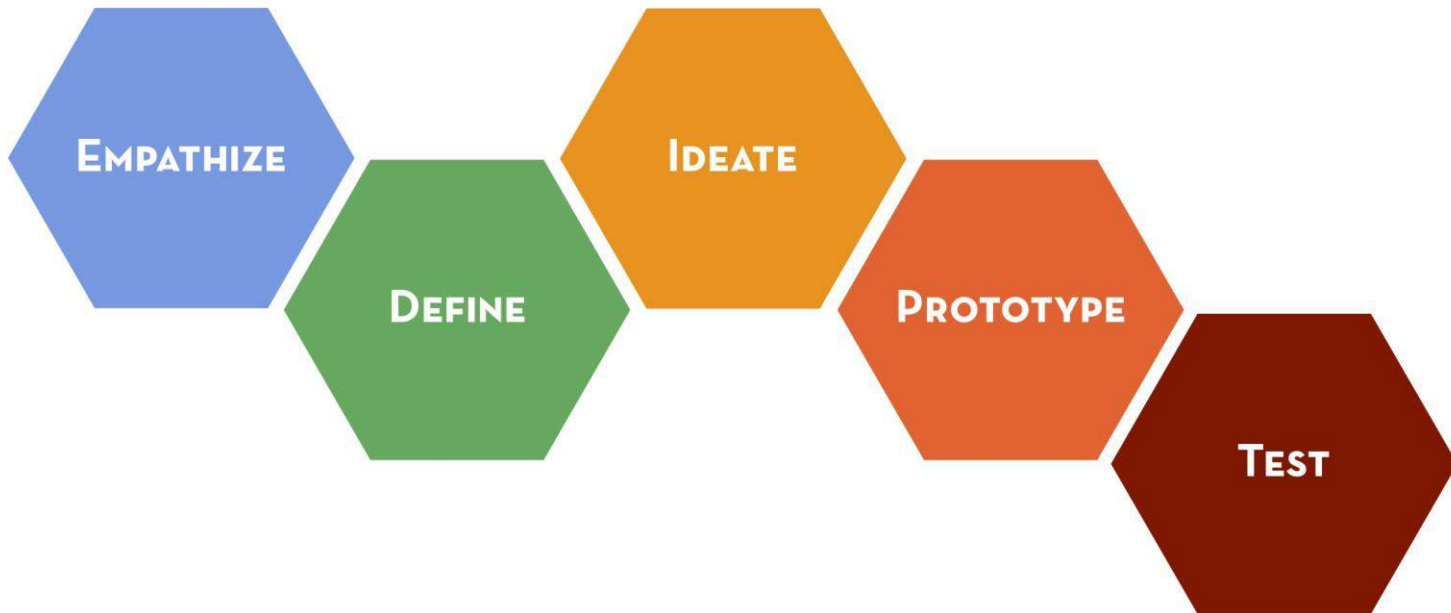
- Experience each step of the design thinking process.
- Draw connections between the design thinking process and the action cycle.
- Understand how to use a Unit of Inquiry central idea to craft a design challenge.
- Brainstorm ways a design challenge could be used as a provocation, inquiry-based learning opportunity, or assessment.



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# Design Thinking Process:

## Stanford Design School







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# Empathize

- Understand the nature of a problem or challenge.
- Through research, identify a problem's constraints and requirements.
- Connect with how the client feels or thinks in order to effectively design for them.



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# Empathize

- Reflect on the perspectives presented in the video.
  - Who is the client?
  - What do you see and hear?
  - What are problems or challenges?
- Consider additional research





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# Empathize

- [Video: Building Empathy](#)



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# Define

- Frame the problem or challenge in a clear way.
- State the problem or challenge in a way that encourages action.

Consider the following central idea: *Personal choices and access to resources contribute to our individual health.*

Challenge: Design a movement-based classroom break so that students will stay healthy and engaged.



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# Ideating Gone Bad

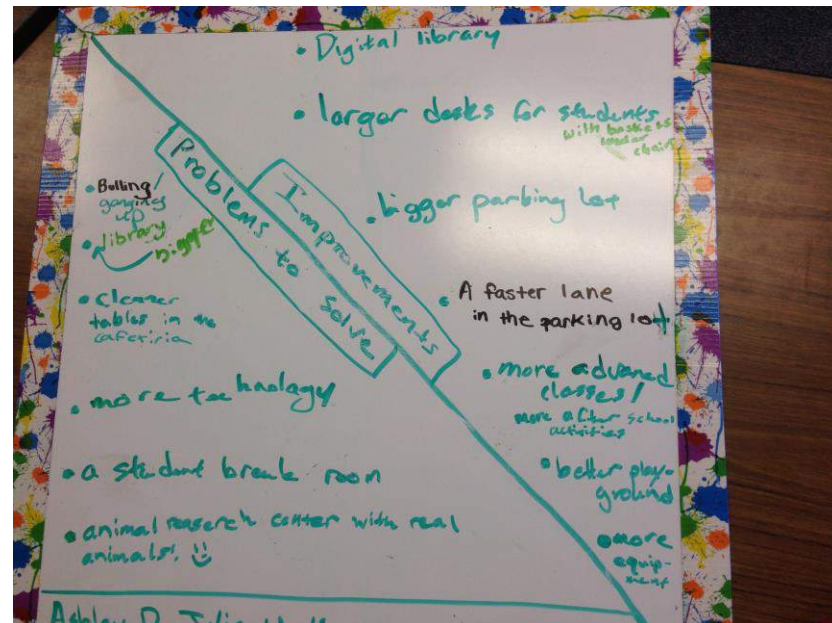
- [Video: Ideating Gone Bad](#)



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# Ideate

- Brainstorm as many solutions as possible to the design challenge
- Creativity and open-ended thinking are encouraged





# Ideate

- Ground rules for ideation:
  - Accept all ideas – Anything goes!
  - Fill up your page
  - Use pictures or headlines
  - Build on the ideas of others

Design a movement-based classroom break so that students will be healthy and engaged.



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# Prototype

- Move from “think” to “thing.”
- Choose the best idea, and draft a 2D iteration.





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# Test

- Present your prototype and solicit feedback from the client or other interested parties
- Team with another group to present your movement prototype

**+ Positives**

**Δ Changes**

? Questions



Additional Ideas





# Drawing Connections

- How is the Design Thinking Process connected to the Action Cycle?
- Brainstorm ways a design challenge could be used as a provocation, inquiry-based learning opportunity, or assessment.
- How might this process contribute to student development of the essential elements of the PYP?



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# Samples of Design Thinking

- Music: Design a playlist for a client for a public event. Choose one song to perform.





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# Samples of Design Thinking

- Third Grade Unit of Inquiry: Understanding cycles helps us to make predictions about the natural world.
- Video: How can young engineers solve problems related to a 500 year flood?



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# Planning for a UOI

Using your favorite current UOI, create a design challenge that would engage your students.

What perspectives could be considered?



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# Questions?

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Empathy clip from *Ferris Bueller's Day Off*