

Learning Design Conversations

Part 2: Integrated
Design Models

Guidelines for the conversation...

**Before talking, please
kindly acknowledge
what was said before.**

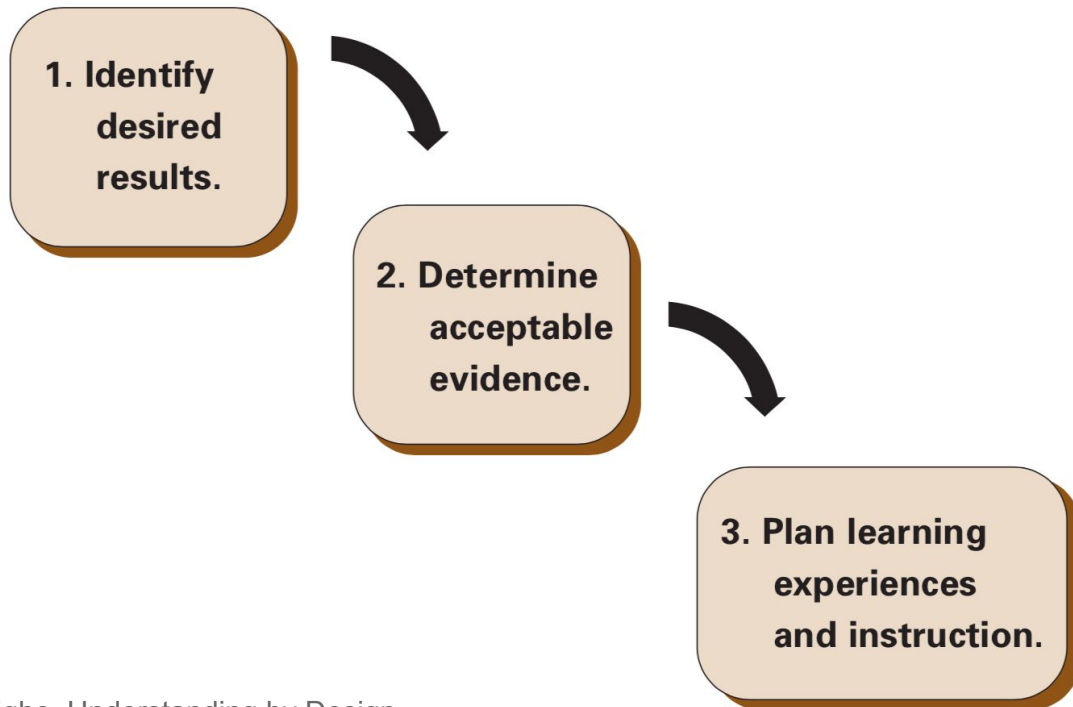
- ⇒ Listen carefully
- ⇒ Be mindful of the 'space' you take up
- ⇒ Be respectful of people and ideas
- ⇒ Be aware of your words, tone and gestures

How do you create (or design) learning experiences?

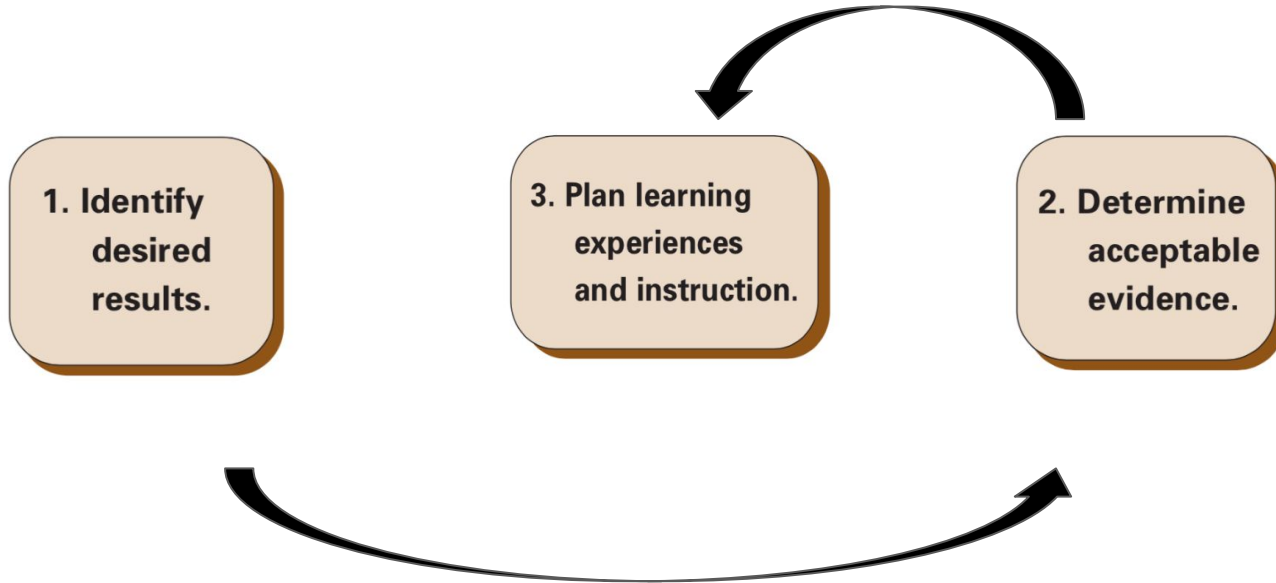
...for programs ...for courses
...for lessons or assignments

What strategies do you use?
What principles or frameworks do you follow?

Backward Design



Backward Design

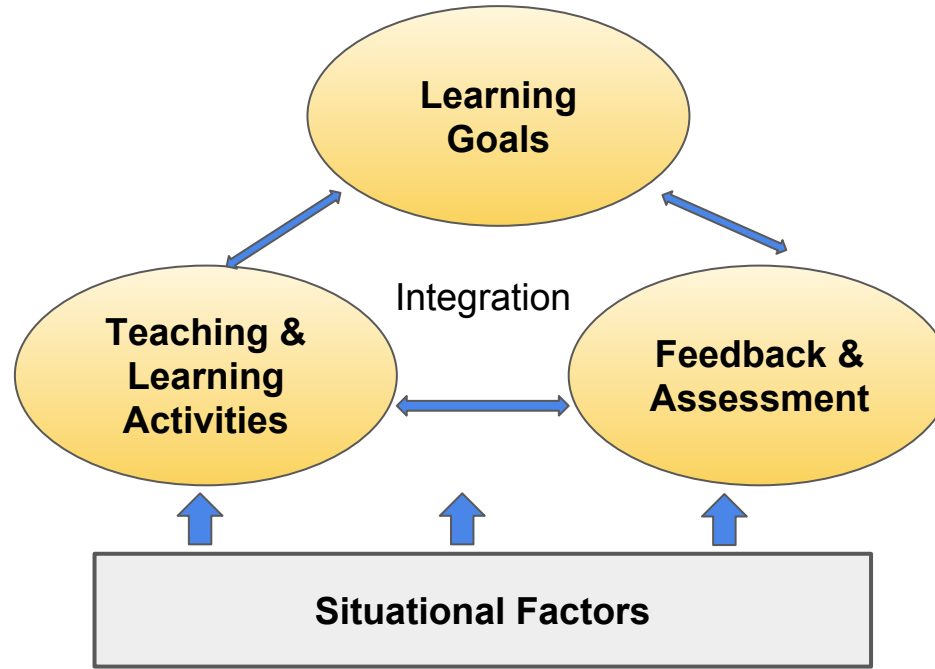


Is Backward Design a useful framework?

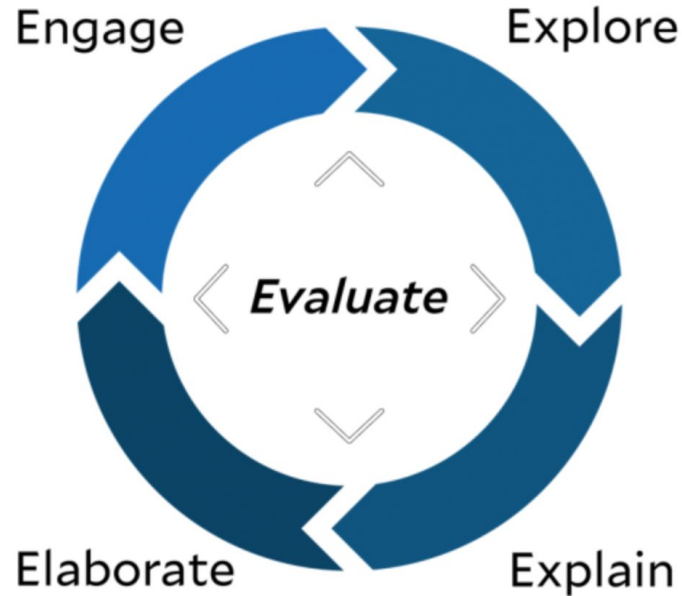
What might be missing?

What are its limitations?

Integrated Course Design



5E Instructional Learning Model



Universal Design for Learning

Universal Design for Learning

Recognition Networks

The "what" of learning



How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks.



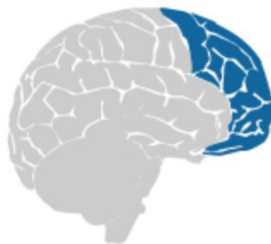
Present information and content in different ways



Principle #1:
Provide Multiple Means of
Representation

Strategic Networks

The "how" of learning



Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.



Differentiate the ways that students can express what they know



Principle #2:
Provide Multiple Means of
Action and Expression

Affective Networks

The "why" of learning



How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.



Stimulate interest and motivation for learning

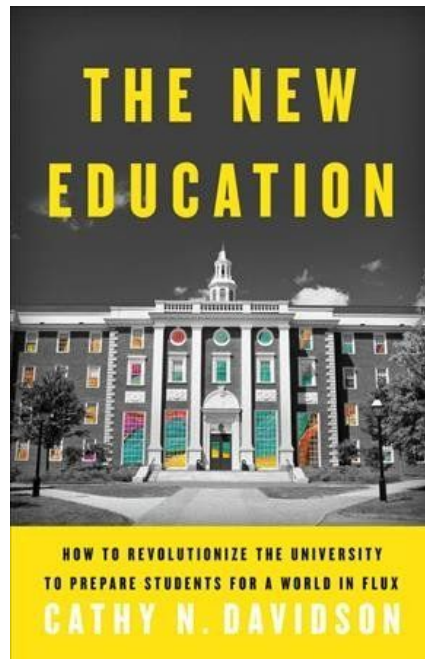


Principle #3:
Provide Multiple Means of
Engagement

How to design learning experiences that ‘give students choices’?

...students help shape learning goals

...differentiated learning activities or assessments for different learners



Design Thinking

It's a mindset.

Human Centered.

Collaborative.

Optimistic.

Experimental.



Design Process

PHASES

1

DISCOVERY



I have a challenge.
How do I approach it?

2

INTERPRETATION



I learned something.
How do I interpret it?

3

IDEATION



I see an opportunity.
What do I create?

4

EXPERIMENTATION



I have an idea.
How do I build it?

5

EVOLUTION



I tried something new.
How do I evolve it?

STEPS

1-1 Understand the Challenge

1-2 Prepare Research

1-3 Gather Inspiration

2-1 Tell Stories

2-2 Search for Meaning

2-3 Frame Opportunities

3-1 Generate Ideas

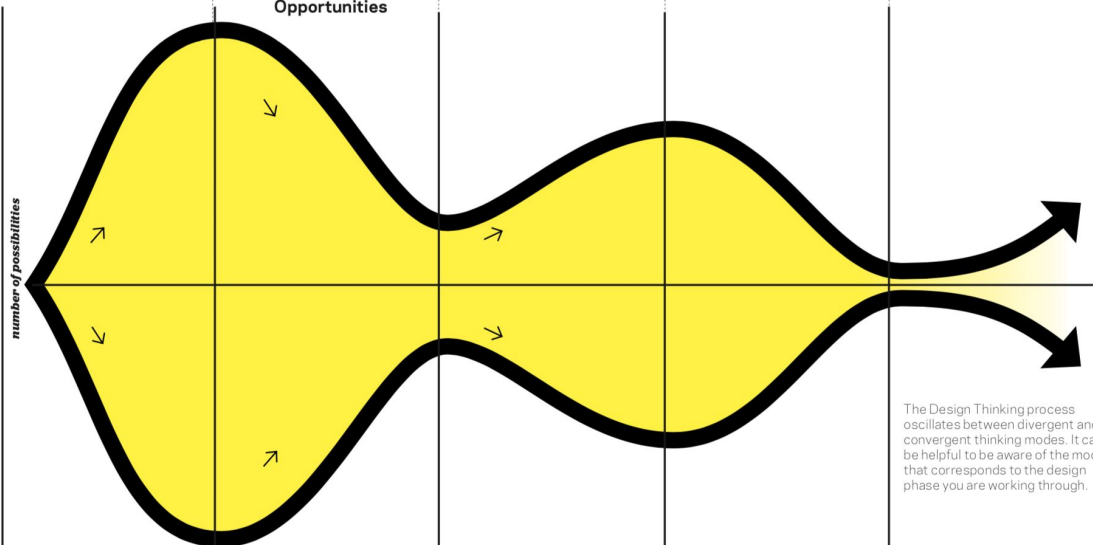
3-2 Refine Ideas

4-1 Make Prototypes

4-1 Get Feedback

5-1 Track Learnings

5-2 Move Forward

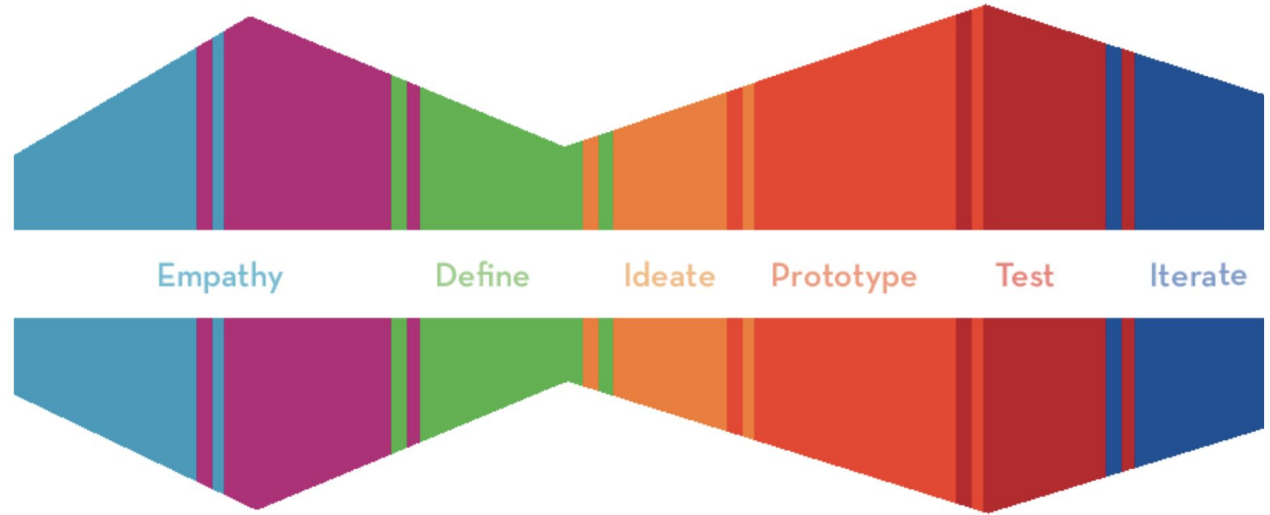


The Design Thinking process oscillates between divergent and convergent thinking modes. It can be helpful to be aware of the mode that corresponds to the design phase you are working through.



DESIGN THINKING TEACHING GUIDE

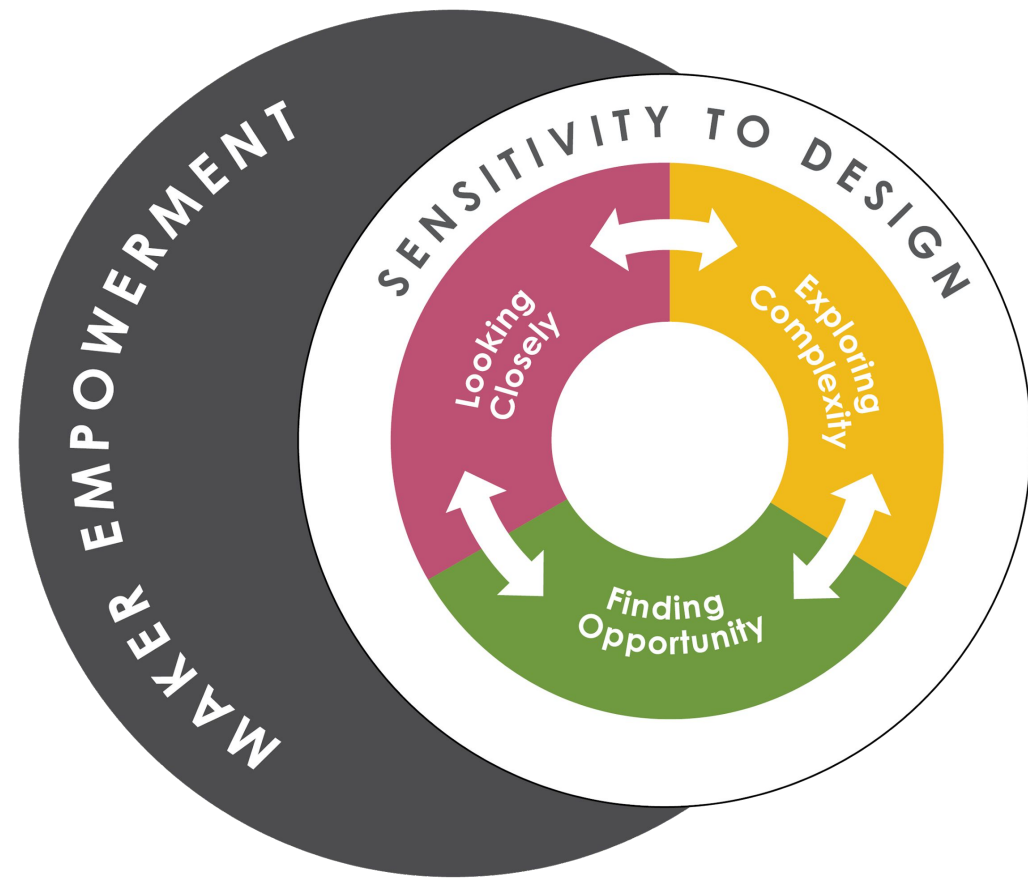
Design Process



Ideas and Strategies for Implementing
Design Thinking in Schools

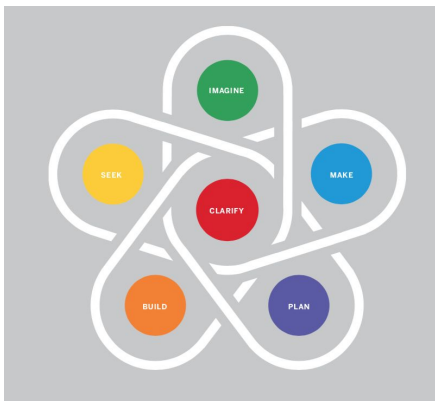


Agency By Design

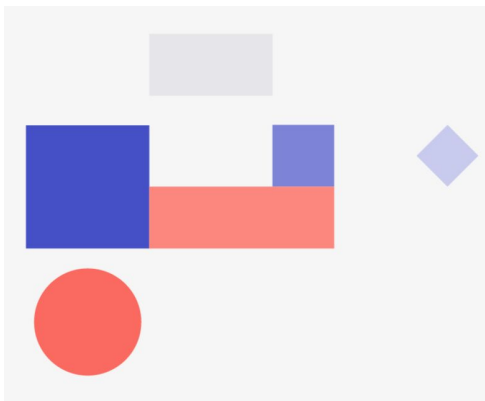


Other Frameworks ...and there are more!

Collective Action Toolkit



Civic Service Design



Human Centered Design



What aspects of design principles or frameworks could be useful in expanding our understanding of learning design?

What does 'significant' learning in the creative fields look like?

How to design 'significant' learning experiences?

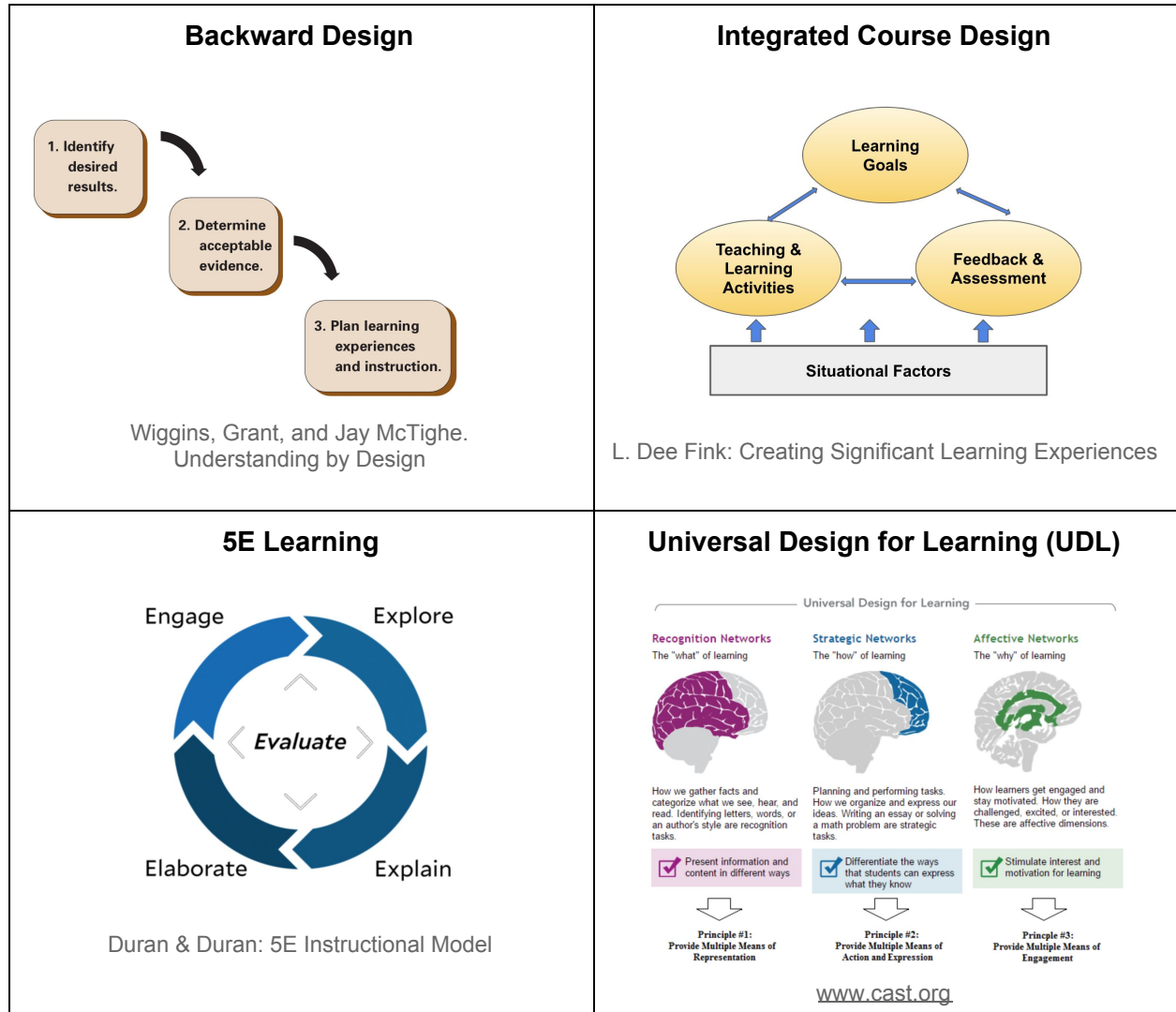


Next session

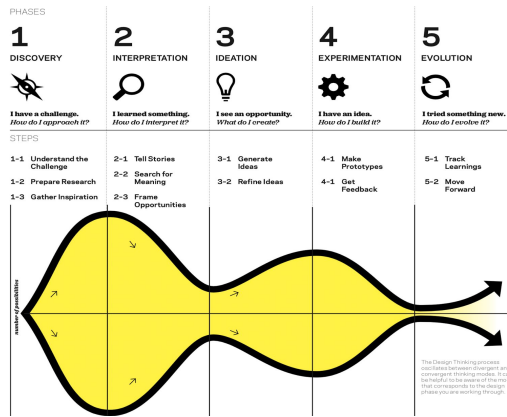
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Dreams and
Situational Factors

Learning Design Models

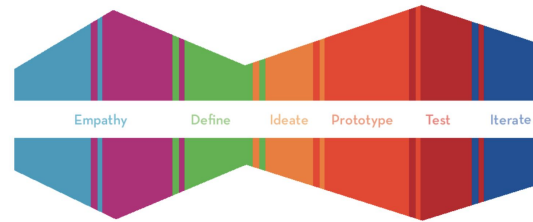


Ideo Design Thinking



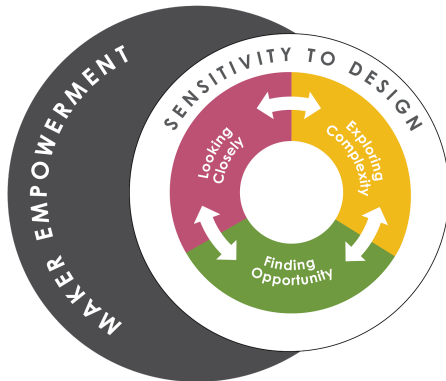
www.ideo.com

D.School Design Thinking



d.school

Agency By Design



Agency by Design | www.agencybydesign.org Project Zero | Harvard Graduate School of Education

What aspects of design principles or frameworks could be useful in expanding our understanding of learning design?

Integrated Design Overview

1. What are the important situational factors in a particular course and learning situation?
2. What should our full set of learning goals be?
3. What kinds of feedback and assessment should we provide?
4. What kinds of teaching and learning activities will suffice, in terms of achieving the full set of learning goals we set?
5. Are all the components connected and integrated, that is, are they consistent with and supportive of each other?

Some problems with Integration (or alignment) of design components:

- Is the instructor only 'covering the material' instead of establishing learning goals?
- Are the learning goals appropriate for that course, that lesson? How could the learning goal be more 'significant'?
- What are the learning activities? What are students asked to do in order to learn?
- Are the learning activities supporting the set goals or are they disconnected and 'busy work'?
- Are the students getting enough practice and feedback on their learning? Are they allowed to fail without consequences?
- How are the students assessed on their learning? Is the assessment connected with the set learning goals? Are the learning activities helping students prepare for the assessments?

Backward Design Worksheet

Stage 1—Identify Desired Results

Establish Goals:

- What relevant goals (e.g., content standards, course or program objectives, learning outcomes) will this design address?

Understandings:

Students will understand that...

Students will know...

Students will be able to....

- What are the big ideas?
- What specific understanding is desired?
- What misunderstandings are predictable?
- What key knowledge and skills will students acquire?
- What should they eventually be able to do as a result of such knowledge and skills?
- What provocative questions will foster inquiry, understanding, and transfer of learning?

Stage 2—Determine Acceptable Evidence

Performance Tasks:

- Through what authentic performance tasks will students demonstrate the desired understandings?
- By what criteria will performances of understanding be judged?

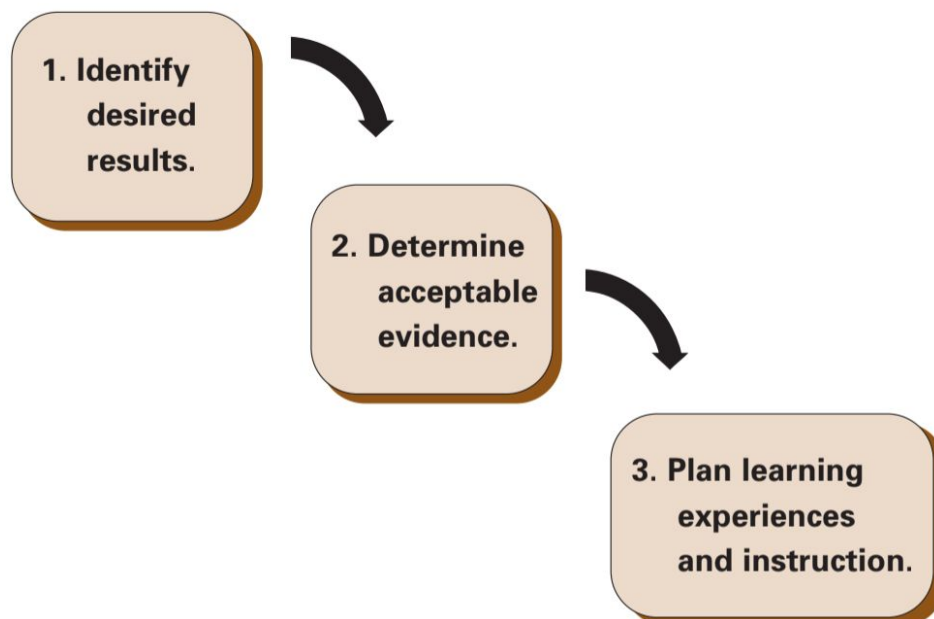
Other Evidence:

- Through what other evidence (e.g. observations, tests, prompts, homework, journals) will students demonstrate achievement of the desired results?
- How will students reflect upon and self-assess their learning?

Stage 3—Plan Learning Experiences and Instruction

Learning Activities:

- What learning experiences and instruction will enable students to achieve the desired results? How will the design...
 - **W** = Help the students know Where the unit is going and What is expected? Help the teacher know Where the students are coming from (prior knowledge, interests)?
 - **H** = Hook all students and Hold their interest?
 - **E** = Equip students, help them Experience the key ideas and Explore the issues?
 - **R** = Provide opportunities to Rethink and Revise their understandings and work?
 - **E** = Allow students to Evaluate their work and its implications?
 - **T** = Be Tailored (personalized) to the different needs, interests, and abilities of learners?
 - **O** = Be Organized to maximize initial and sustained engagement as well as effective learning?



THE INQUIRY CYCLE

A TOOL TO SUPPORT DESIGNING, DOCUMENTING, ASSESSING,
AND REFLECTING ON MAKER-CENTERED LEARNING EXPERIENCES

Design the Learning Experience

1

a) Explain what theme, subject matter, or unit of inquiry you'll be focusing on during the learning experience that you will be documenting in this inquiry cycle (e.g., the Civil Rights Movement, *To Kill a Mockingbird*, conjugating verbs, velocity, wind & waves, collaboration, etc.).

b) List one or more learning objectives (something you hope your students will learn or understand as a result of the learning experience AND one or more of the Agency by Design maker capacities (looking closely, exploring complexity, finding opportunity) that you'll explore through this experience.



Facilitate the learning experience you designed related to the Agency by Design Framework

What did you do?

Document the Experience

2

First consider how *you* are going to document and share the learning experience: audio, video, notes, photos, etc. Describe how you incorporated your learning objectives and one or more of the three capacities into the learning experience. Share how you facilitated this activity. Be sure to include the dates of the experience you are documenting and any other notes that may be helpful for reflection or future planning. Include any appropriate documentation of student and teacher products or processes: quotes, photos, videos, samples of student work or teacher created materials that share the process of learning that occurred during this experience.

3**How did it go?**

Describe how this learning experience met your learning objectives and supported your students' engagement with one or more of the maker capacities. What were some surprises that happened along the way?

What did your students learn?

Describe one or more things your students learned in regard to your learning objectives and one or more things your students learned in regard to the maker capacities.

4**How do you know?**

Use 2-3 artifacts from your documentation to serve as evidence or reflection points for the learning you described above. Be sure to add captions to each artifact that help to place this documentation in context, and to emphasize any connections to your learning objectives or one or more of the maker capacities. These contextual notes will be helpful when you are reflecting on the learning with colleagues or learners.

What did you learn?

From your perspective as an educator, in a few sentences, describe one or more things you learned from this experience.

5**What would you do differently?**

Think about what you learned, what your students learned, and to what extent your goals around learning objectives and exploration of the maker capacities were met. Describe what you might do differently if you were to facilitate this same learning experience again.

6**What will you do next?**

Now take a moment to think about what you and your learners will do next. Based on the learning experience you just documented, what is the next activity related to maker-centered learning that you'll be experimenting with next?

7**REPEAT!**

The Inquiry Cycle

The Inquiry Cycle is a tool to support teacher and student learning—and to make that learning visible—all the while exploring the capacities associated with the Agency by Design framework for maker-centered learning.

The Inquiry Cycle was designed to provide educators with a documentation and assessment tool that they may use over time to both tell the story of teaching and learning in a particular setting, but also to support educators in developing learning experiences for their students. Making this tool a cycle was intentional. The cyclical nature of the tool serves as a formative documentation and assessment instrument to support teachers in designing their learning experiences by reflecting on where they have been, what their students have learned, and what they might do next.

Tips for When and How the Inquiry Cycle Can Be Used in Practice

- *Do it Together*—While the Inquiry Cycle can easily be applied by a lone educator in a particular setting, the potential of the Inquiry Cycle is amplified when educators share their work with one another. In this regard, we recommend that educators using the Inquiry Cycle seek out a community of diverse colleagues that frequently meet or connect with one another either online or face-to-face.
- *Make Time to Reflect*—While utilizing the Inquiry Cycle tool becomes routinized and therefore easier over time, we have learned from our teacher colleagues that contributing to an Inquiry Cycle on a regular basis takes a good amount of time and effort. Teachers are busy people, and time is a precious commodity within most every learning environment! Making the time to reflect upon one's work is no easy feat, but our teacher colleagues have found it to be valuable in the long run.
- *Hack It!*—The Inquiry Cycle that we have presented here has been very deliberately designed, but we expect that it will not perfectly fit each educator's needs... without alteration. To this end, we encourage educators to hack the Inquiry Cycle to suit their needs, best serve their students, and be responsive to the demands of their unique teaching and learning environments.
- *Experiment and Take Risks*—The Inquiry Cycle deliberately prompts educators to try something out, reflect on how it went, and then try it out again. This is a process of tweaking one's practice over time, experimenting with new approaches, learning from those experiments, and then experimenting again.
- *Celebrate*—Great stories of teaching and learning have emerged from educators' use of the Inquiry Cycle. And while learning is its own reward, it is also something to celebrate! In that regard, we encourage educators and learners to use the Inquiry Cycle in exhibitions to celebrate their work.