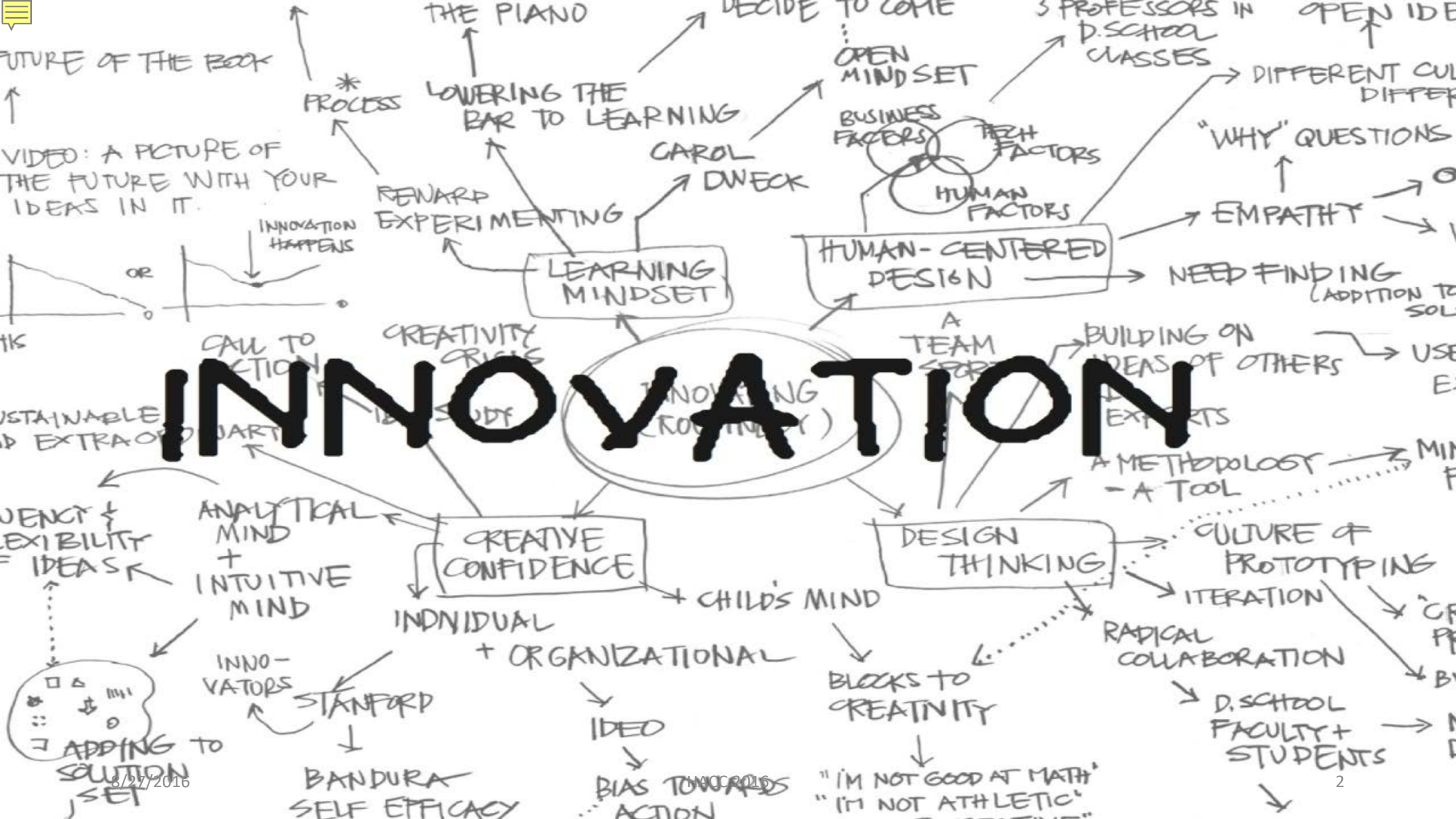




## An Introduction to Design Thinking





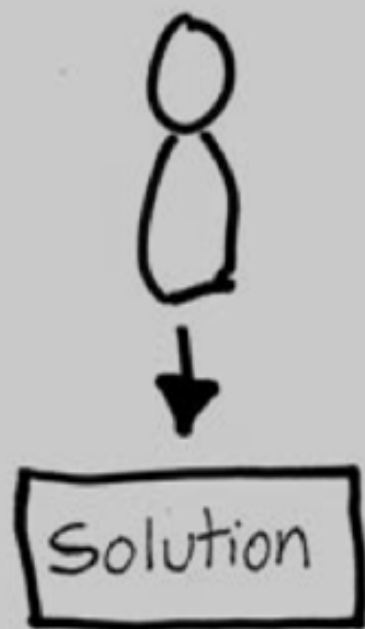
# Design Thinking

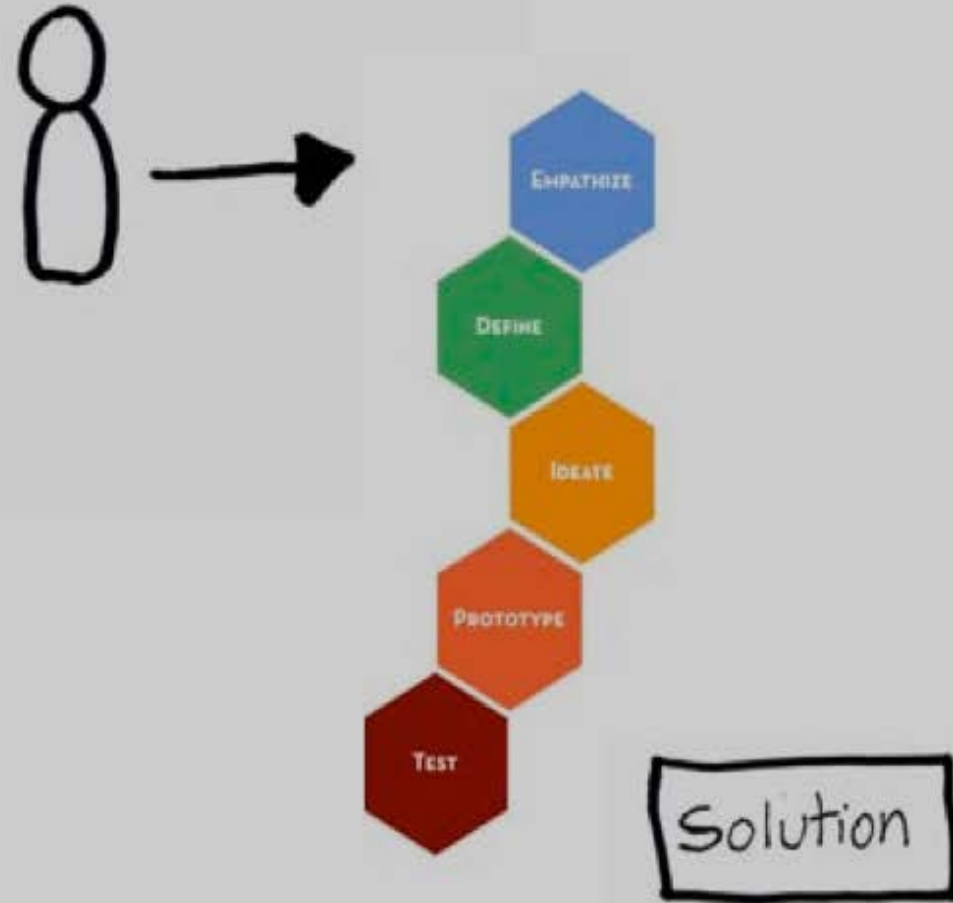
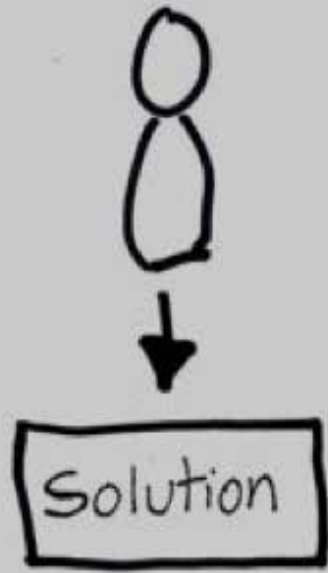


# INNOVATION \i-nə-'vā-shən\

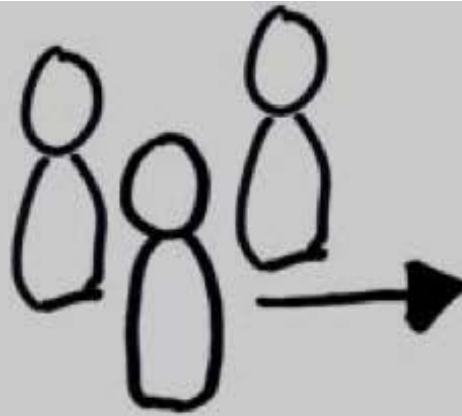
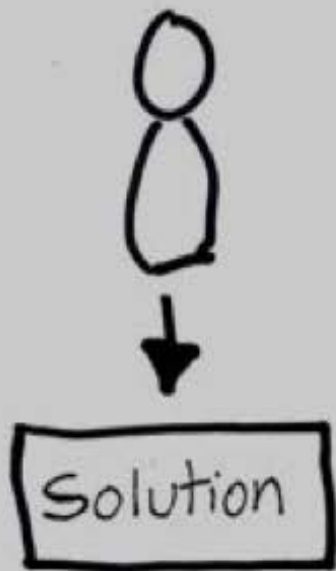
*n.* The process of improving, adapting or developing a product, system or service to deliver better results and create value for people.

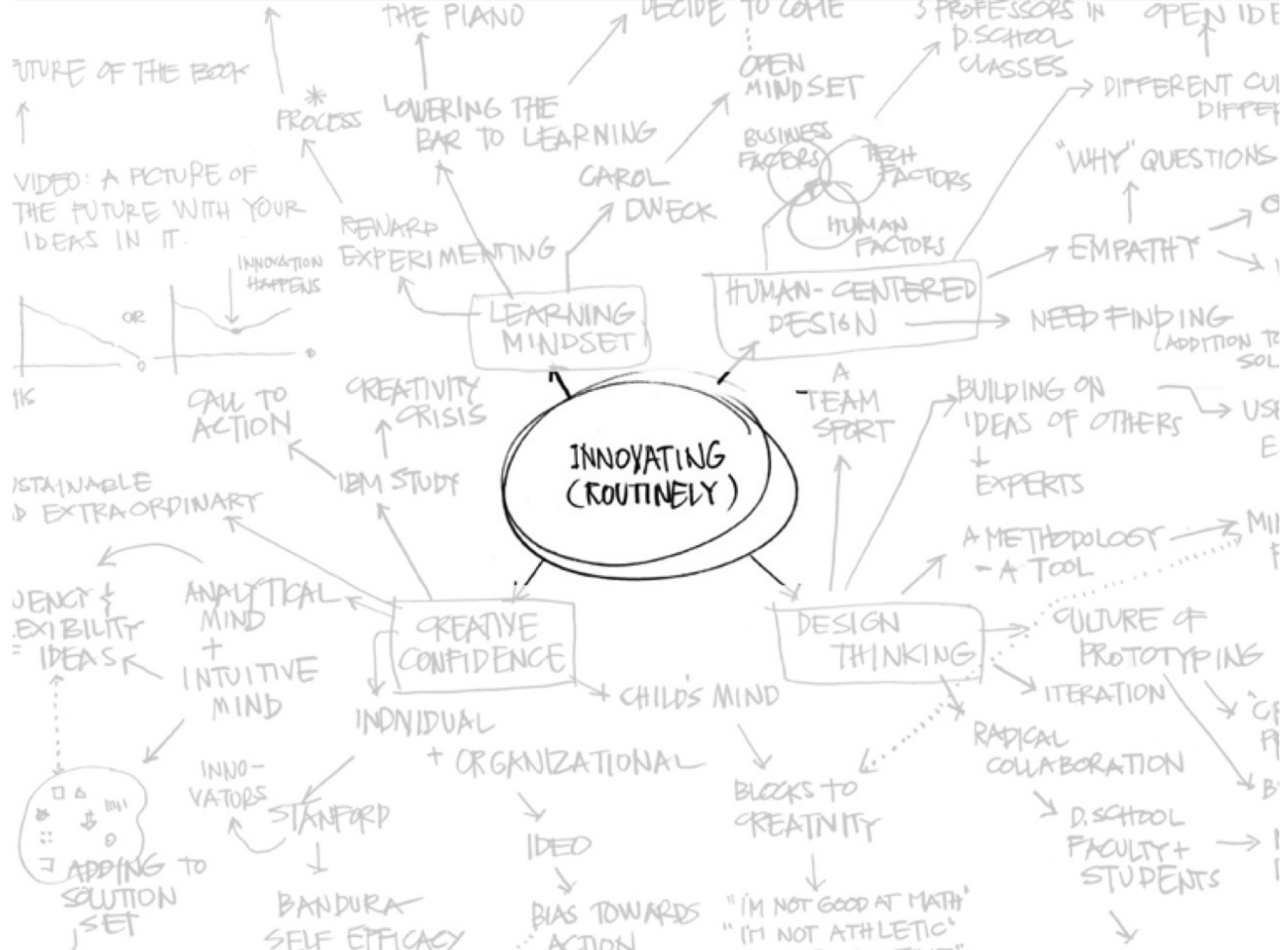








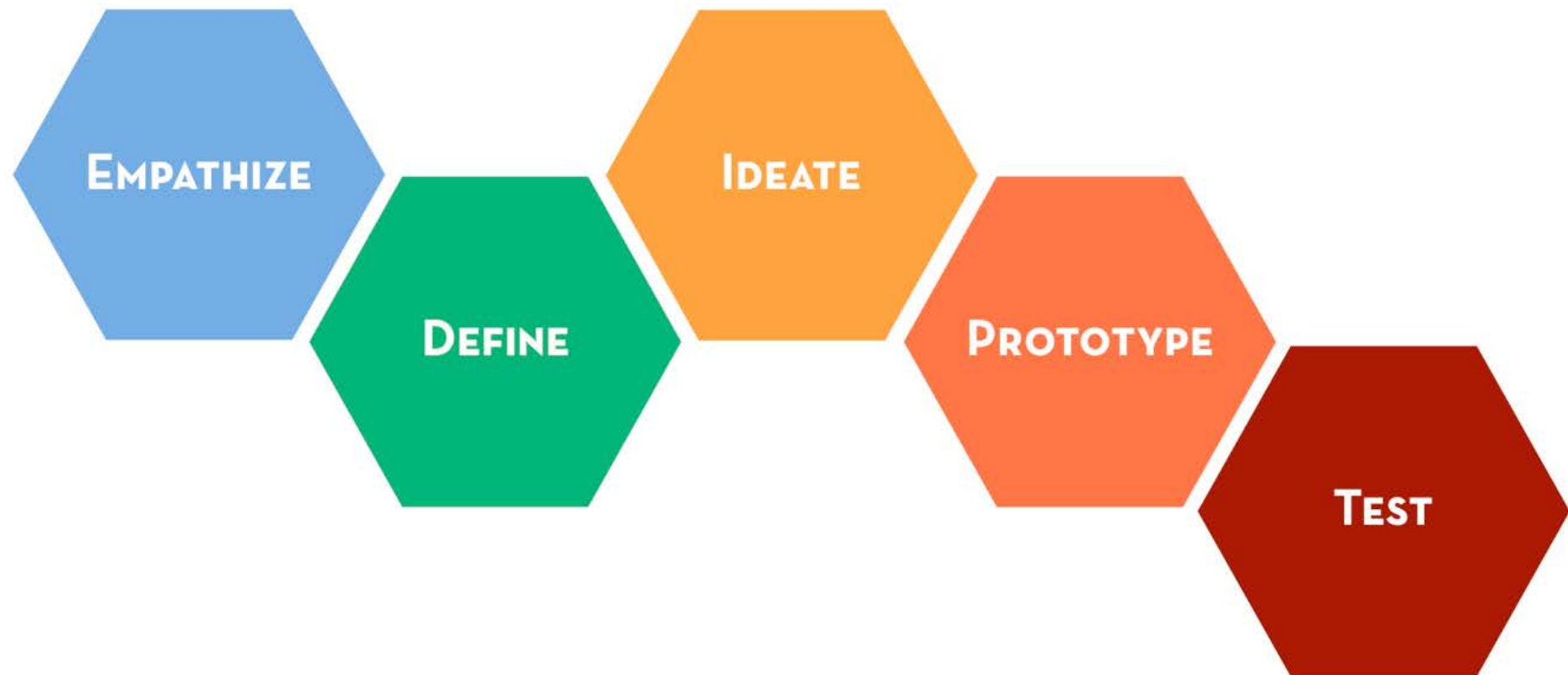


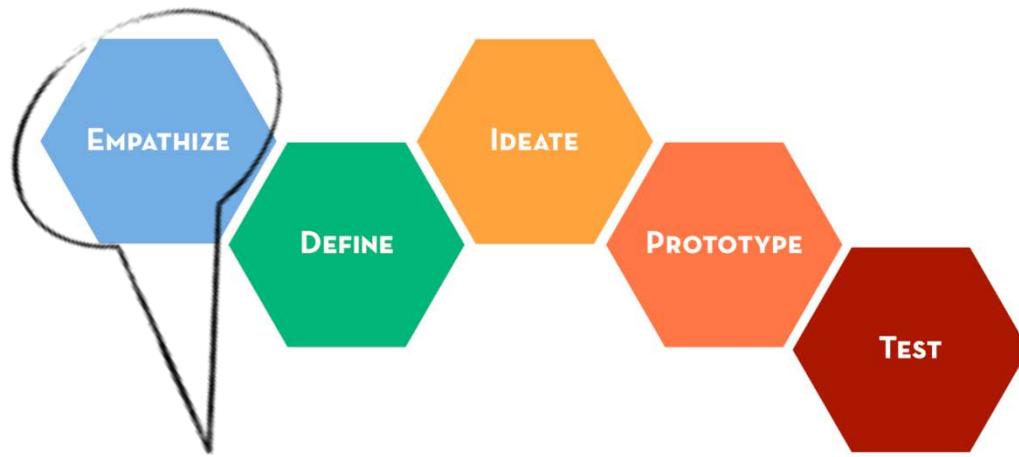






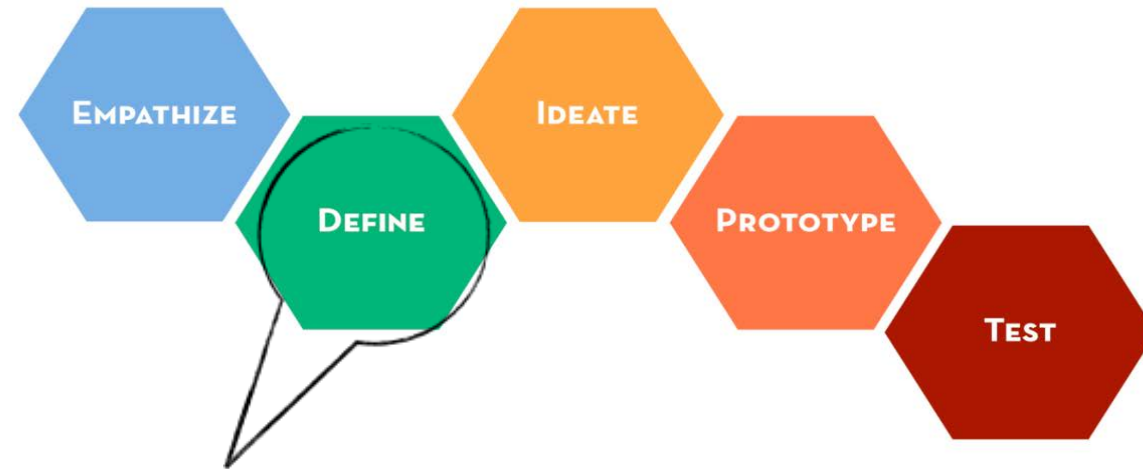
“Make the human element as important as the technical & business elements.”





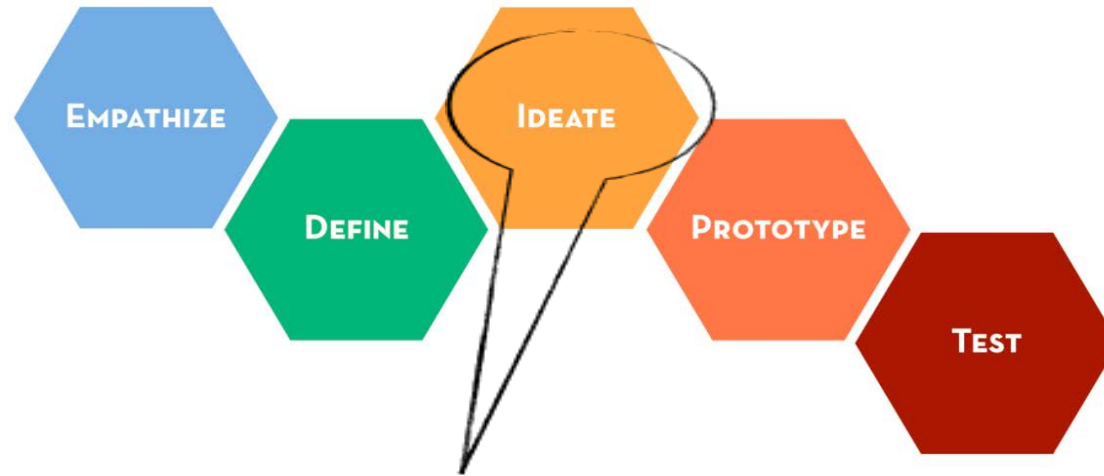
**Empathy** is the foundation of the user centered design process.

- Observe
- Engage
- Immerse



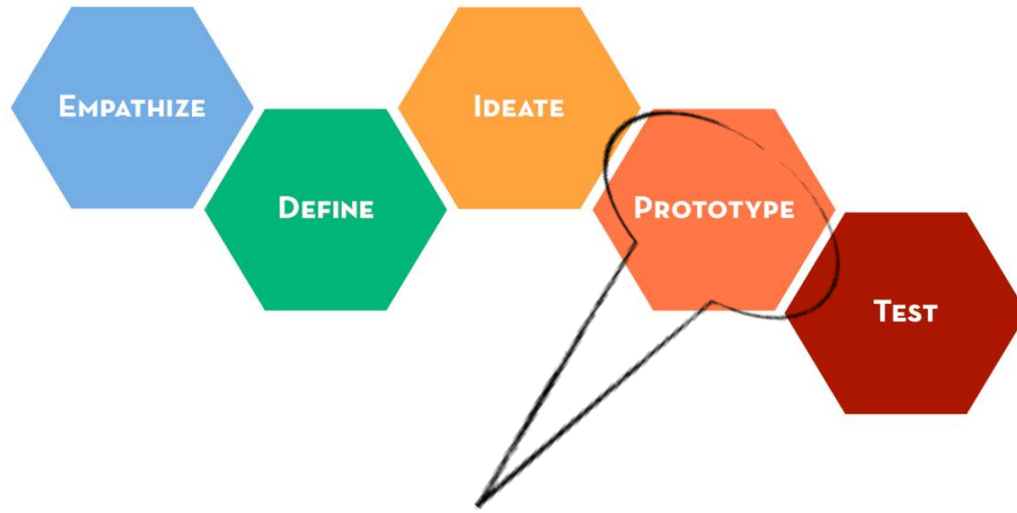
**Define** is a mode in which you unpack and synthesize your empathy into compelling needs and insights, and scope a meaningful challenge





The **Ideate** mode is where you generate radical design alternatives

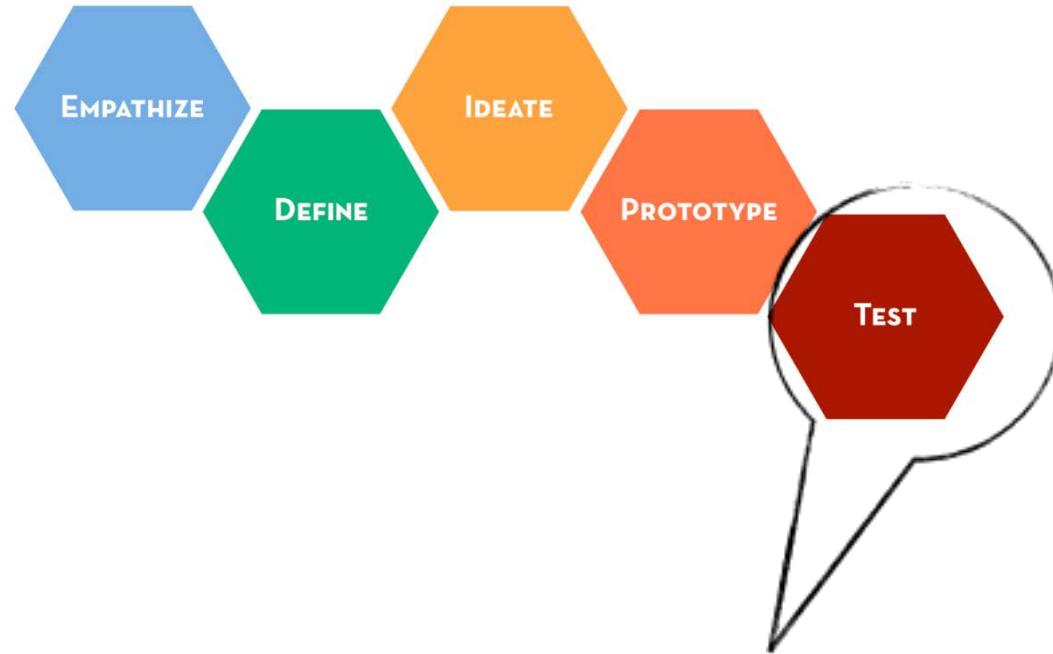
The goal is to explore a wide solution space - large quantity of ideas and diversity among those ideas



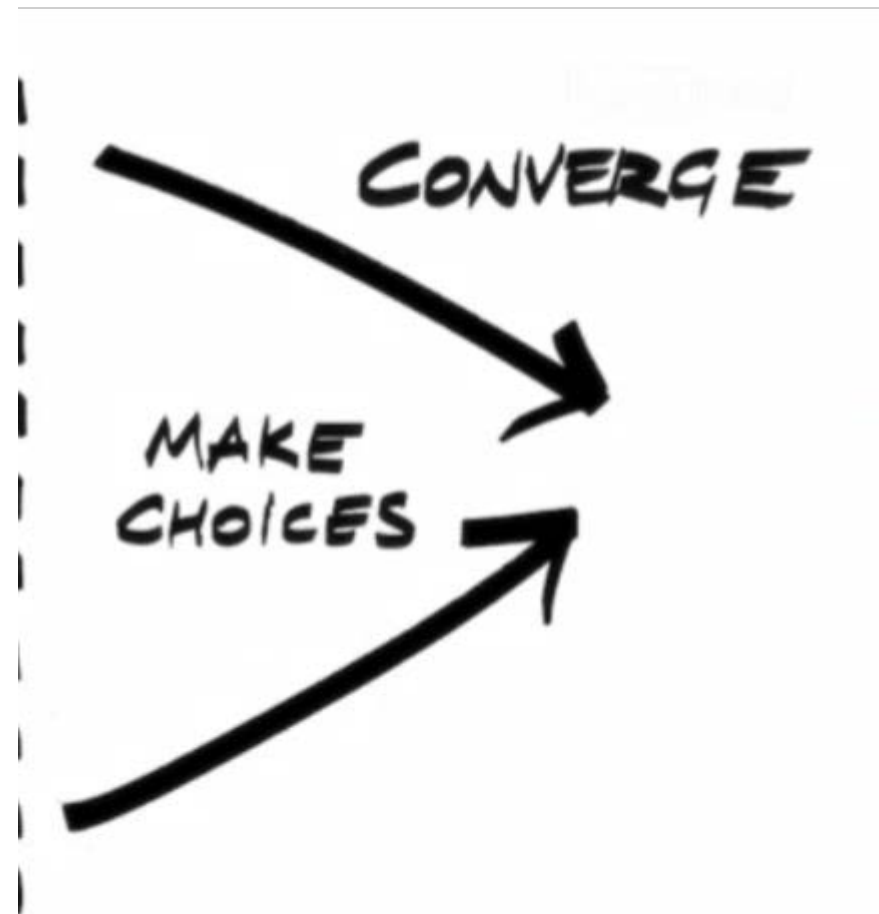
**Prototyping** is getting those ideas into physical form. You can progressively, increase the resolution of your prototype.

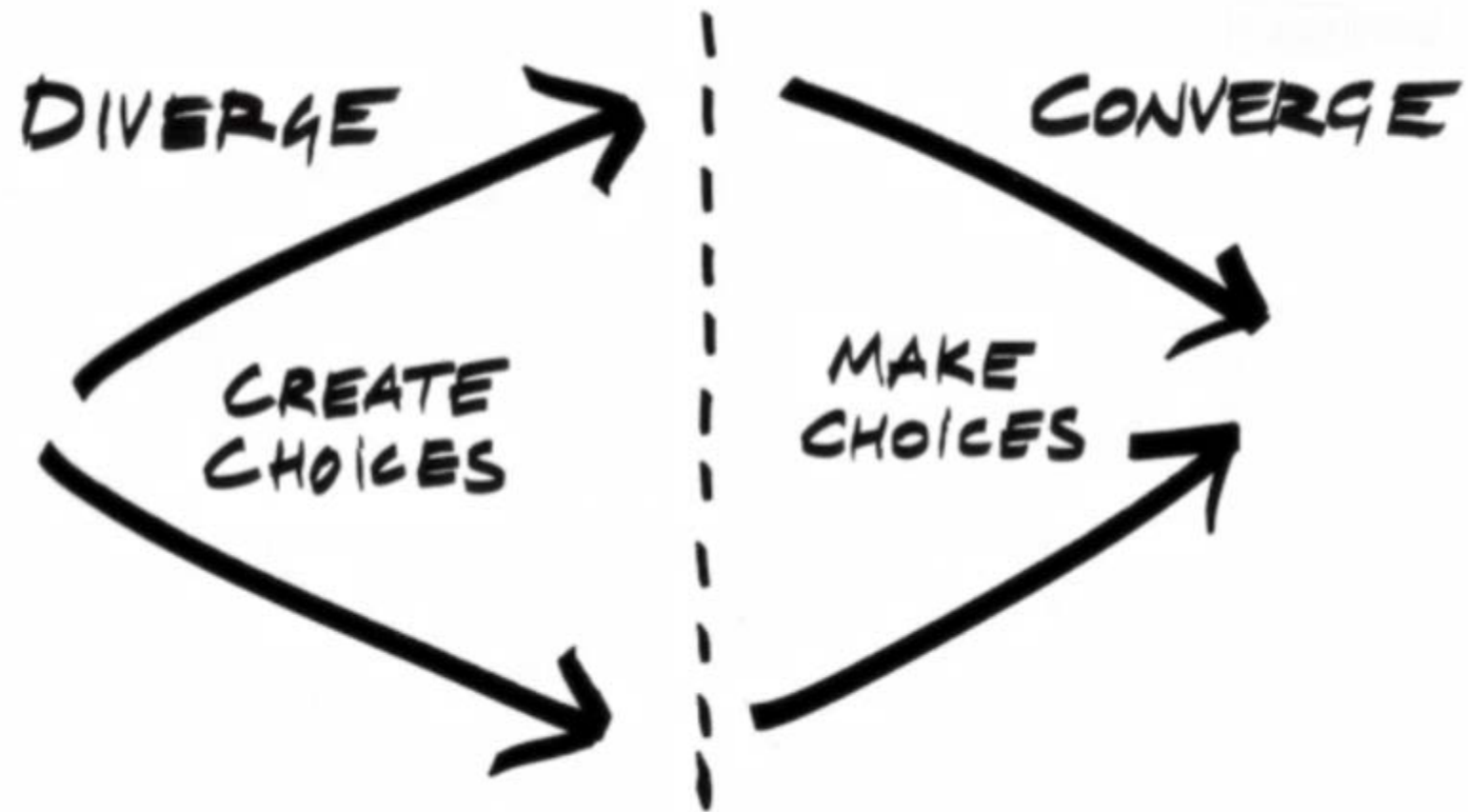
They are most successful when people can experience and interact with them.





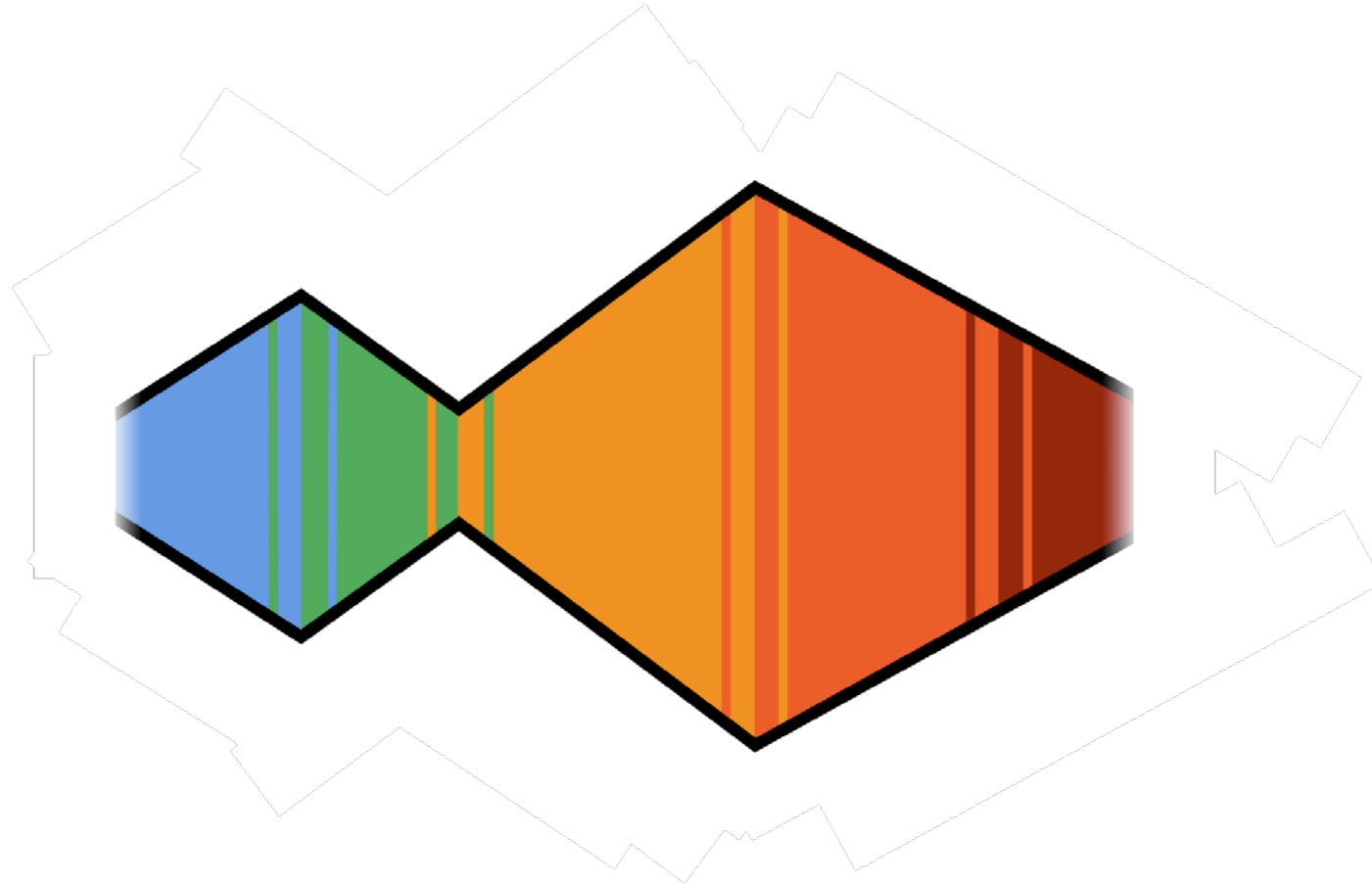
**Test** is the chance to get feedback on your solution, refine the solutions to make them better.





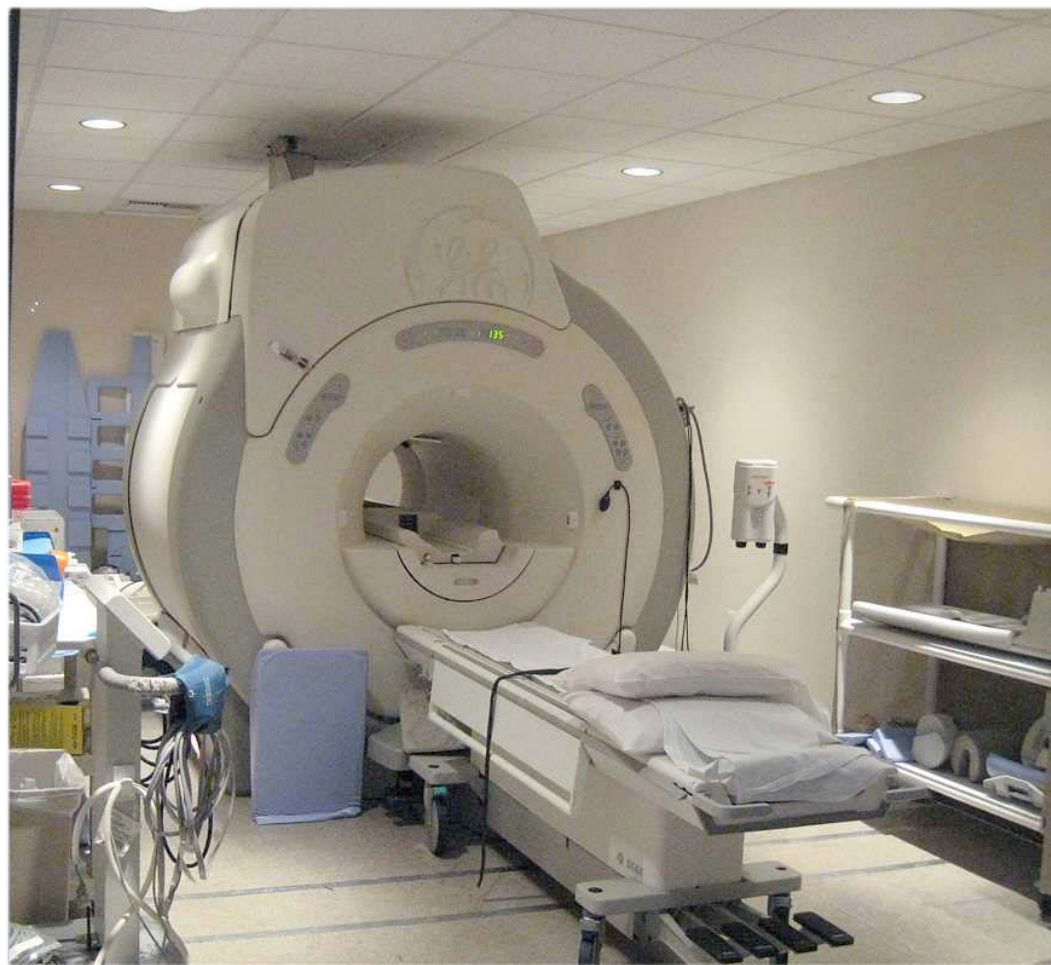


# Focus and Flare



## 60 Minutes – How to Design Breakthrough Inventions

<http://www.youtube.com/watch?v=M66ZU2PClcM>



Doug Dietz, GE medicals









Traditional	Design Thinking
Design for	Design with
Right answers	Right questions
Telling	Showing...
Thinking and planning	Bias towards action
Analytical, rational formal and convergent	Divergent, Convergent, Analysis and Synthesis
Make choices	Create choices ➡ Make choices
Facts and Data	Stories, Feelings and Experiences



# Human-Centered

To design something that will  
be used by PEOPLE



# Human-Centered

To design something that will  
be used by PEOPLE



To design something that will fill  
a need and fit into their lives

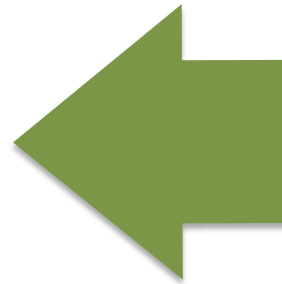


# Human-Centered

To design something that will  
be used by PEOPLE



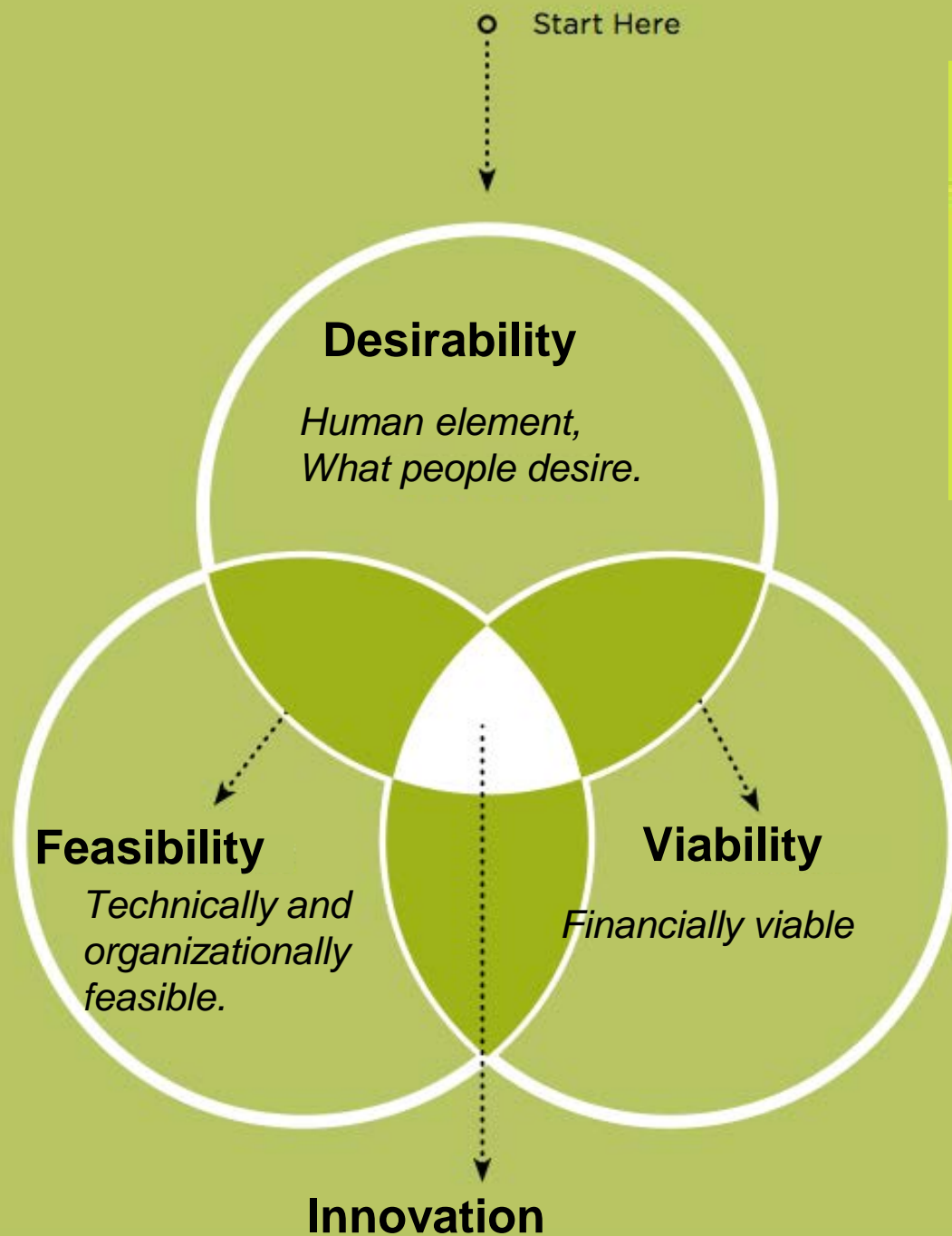
To design something meaningful,  
you need to understand their  
lives, behavior and beliefs



To design something that will fill  
a need and fit into their lives







The solutions that emerge at the end of the Human-Centered Design should hit the overlap of these three lenses; they need to be **Desirable, Feasible, and Viable.**



**who's your user?**

## point of view: components

### user

desperate nepali mother

specific user  



### need

to keep premature baby warm in  
the early hours


need, not  
solution  


### insight

most mothers don't have the means  
to bring their baby to a hospital

what nobody else  
noticed  




A woman with dark hair, wearing a beige cable-knit sweater over a teal patterned top, is holding a newborn baby. The baby is wearing a blue hooded baby warmer with a clear window showing the baby's chest. The warmer has the 'embrace' logo on it. The woman is looking down at the baby with a gentle expression.

**User:** Young moms in poor rural areas in developing countries.  
**Need:** Always carry baby close to body equals being a good mother.  
**Insight:** Low cultural acceptance in many countries to »leave babies alone« (e.g. in incubators).

*“How might we create an non-electrical infant incubator that keeps babies close to mother’s body?”*



# The Embrace Infant Warmer is a product with a mission.

Embrace is a sustainable social enterprise that is addressing the issue of global infant mortality through

an innovative infant warmer that costs less than 1% of a traditional incubator.

The design looks like a miniature sleeping bag but in reality saves lives of vulnerable infants. It is a new, low cost solution to help keep low birth weight babies' body temperature warm so they can survive and thrive in developing countries.

It can be used in clinics or in community-based settings. Our customers will be private clinics, NGOs and governments, who are also our distribution and education partners. We plan to pilot the product and business concepts in India, and then roll out in the rest of the developing world.



# A few things we've done

- Quality Assurance and Improvement Program
- Strategic Plan
- HMW have better communications across the org?
- HMW design a better crisis response system?
- HMW have a better front door to our system?
- DT Bootcamp: HMW redesign the employment experience for people with intellectual and developmental disabilities?

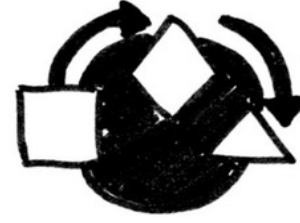




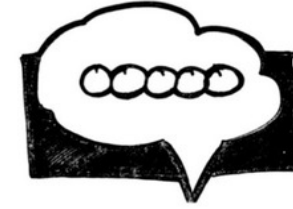
FOCUS ON  
HUMAN VALUES



SHOW  
DON'T TELL



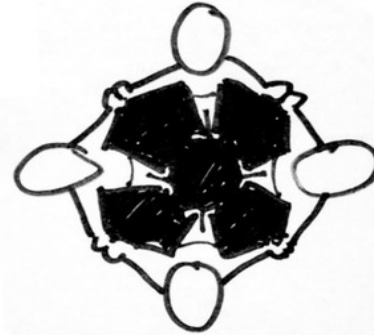
EMBRACE  
EXPERIMENTATION



BE MINDFUL  
OF PROCESS



BIAS TOWARD  
ACTION



RADICAL  
COLLABORATION

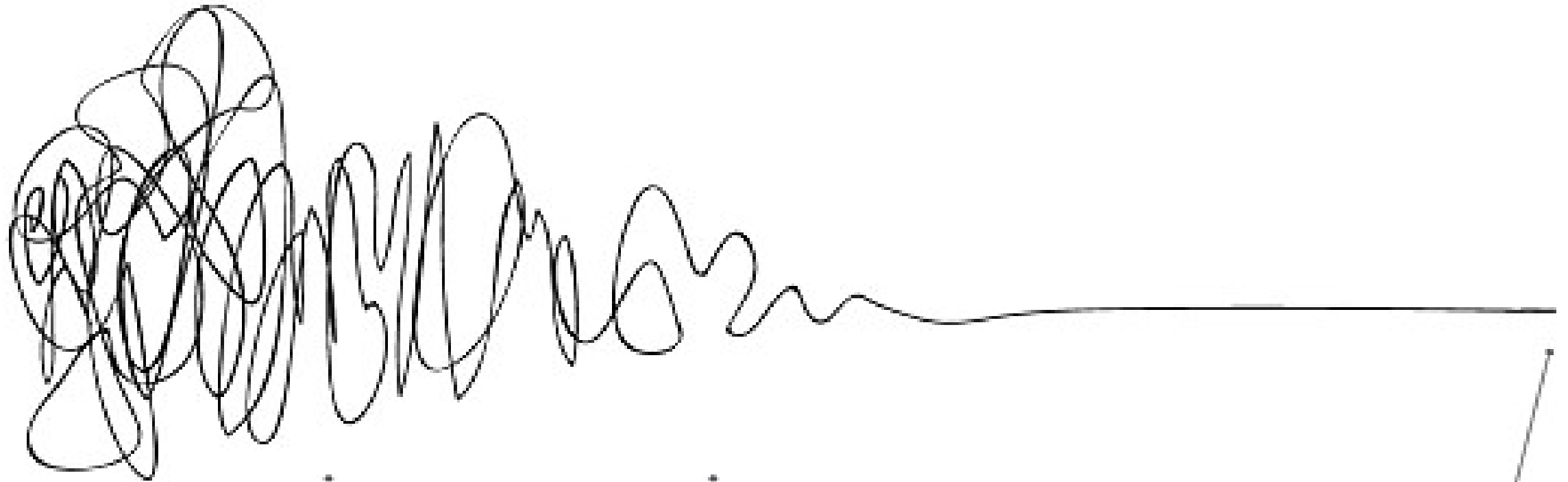


CRAFT CLARITY

**d.MINDSETS**

UNCERTAINTY / PATTERNS / INSIGHTS

CLARITY / FOCUS



RESEARCH

CONCEPT

PROTOTYPE

DESIGN

## VIRTUAL CRASH COURSE IN DESIGN THINKING

<http://dschool.stanford.edu/dgift/>

### ***IDEO***

<https://www.ideo.com/>

### Harvard Business Review

<https://hbr.org/2008/06/design-thinking>

### DESIGN THINKING HAWAII



<https://designthinkinghawaii.wordpress.com/>