

# **You are an Educational Designer**

An Introduction to Design Thinking

**Petrina LaFaire, Helen Morgan, Joyce Lee**

## Medium

### Doctor as Designer

[Edit profile](#)

Joyce Lee, MD, MPH Physician, Designer, Researcher Promoting a Maker Movement for Health <http://www.doctorasdesigner.com/>

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<http://www.doctorasdesigner.com/>

<https://medium.com/@joyclee>

Twitter: @joyclee

**What is  
design?**



It's a Monday at 10:00 AM and you have a 30 minute meeting.

**Can you park here?**  
**How long can you park?**

@joyclee

**NO PARKING ANYTIME**

**2 HOUR PARKING**  
8 AM TO 6 PM  
MONDAY THRU FRIDAY

DISTRICT NO. 12  
PERMITS EXEMPT

**NO PARKING**  
12 NOON TO 2 PM  
FRIDAY  
STREET CLEANING



**Nikki Sylianteng**  
@nsylianteng Follows you

Product designer. Urban/Civic/Gov.  
Redesigning parking signs  
[@toparknottopark](#). Pattern library for  
physical world [@city\\_objects](#).





“But I read the sign, and I thought I could park there! Did I misunderstand something??”

“I wondered why the signs had to be so complicated.”

“My mind felt like it was doing intense math whenever I tried translating the signs.”

-Nikki Sylianteng

@joyclee

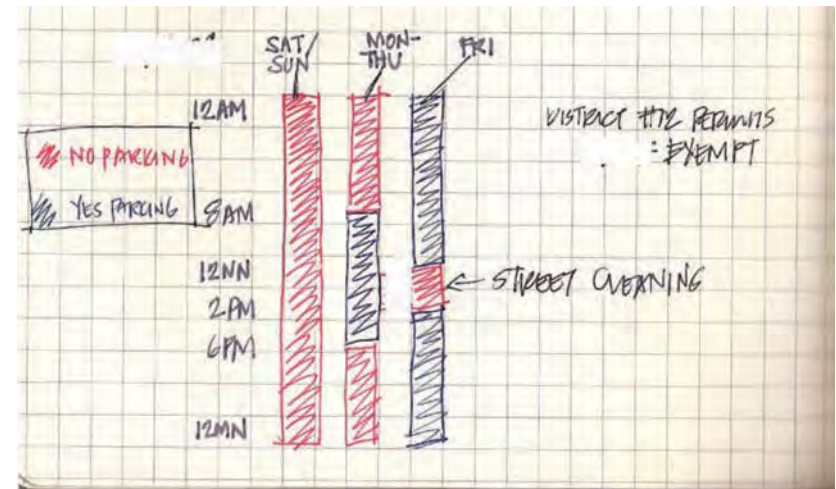
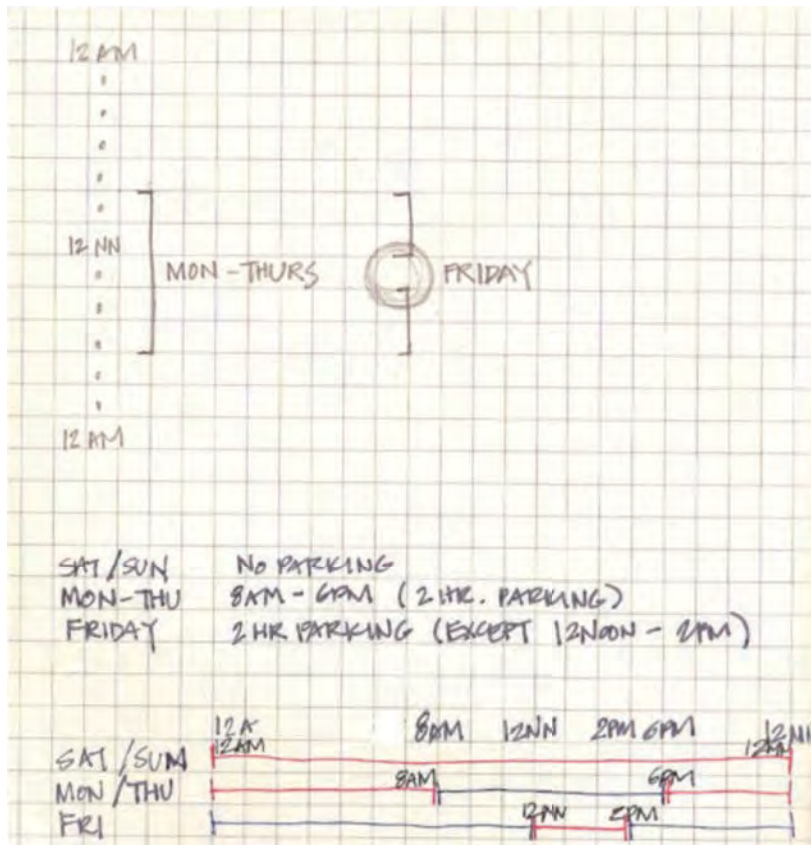
# Problem Identification:



[toparkornottopark.com](http://toparkornottopark.com)

@joyclee

# Ideation



[toparkornottopark.com](http://toparkornottopark.com)

@joyclee

# Prototyping

| PARKING SCHEDULE |           |           |           |
|------------------|-----------|-----------|-----------|
|                  | M-F       | SAT       | SUN       |
| 7am              | Ⓡ         | Ⓟ<br>FREE | Ⓟ<br>FREE |
| 8am              |           |           |           |
| 9am              | Ⓟ<br>1 HR | Ⓟ<br>1 HR |           |
| 4pm              | Ⓡ         |           |           |
| 7pm              | Ⓟ<br>FREE |           |           |
| 8pm              |           | Ⓟ<br>FREE |           |
| +                |           |           |           |

[toparkornottopark.com](http://toparkornottopark.com)

@joycee

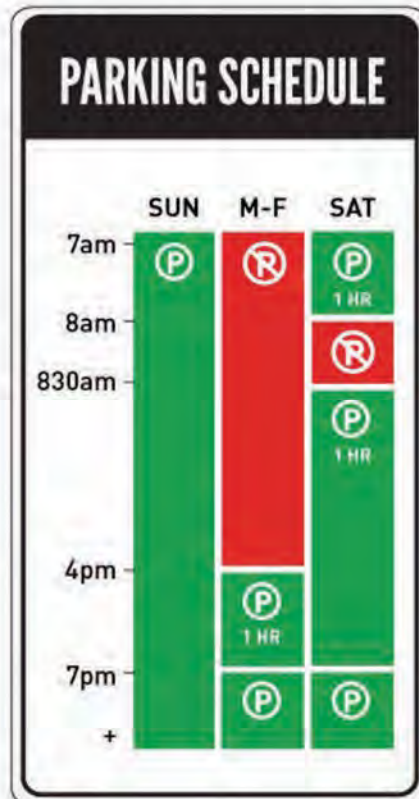
# Testing



# Testing and More Prototyping

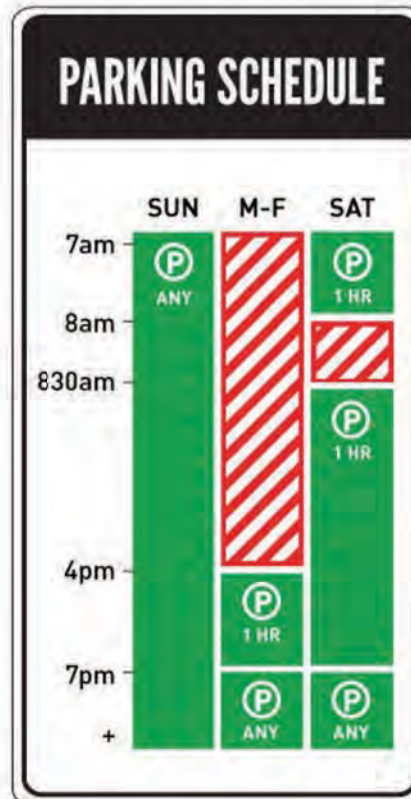
## Solid

- Solid red bar to represent No Parking

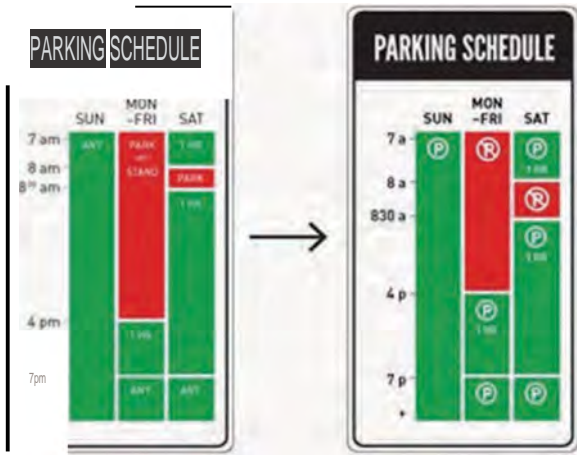


## Cross-hatch

- Cross-hatch to represent No Parking

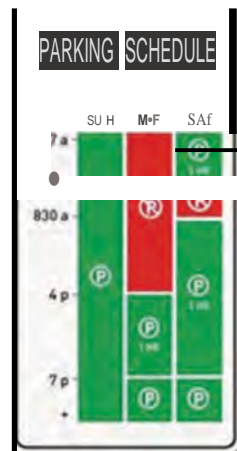


# Testing and More Prototyping

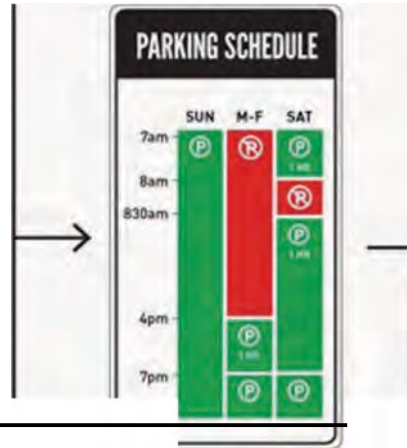
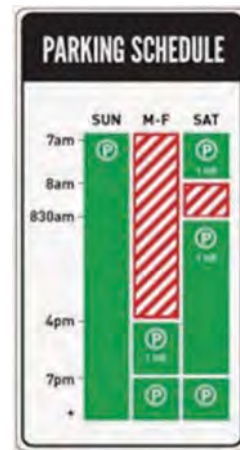


II

VS.

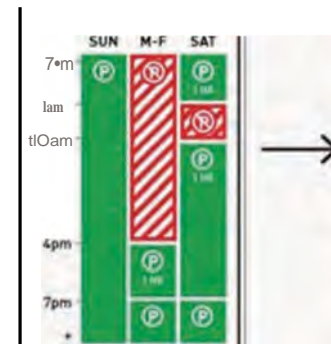


VS.



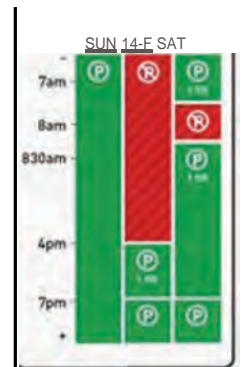
r.iiiiiiiiii

**PARKING SCHEDULE**



m Optimized for colorblindness

**PARKING SCHEDULE**



II Toned down pattern for non-colorblind

# The Sydney Morning Herald

First published 1831 No. 55,234

INDEPENDENT. ALWAYS.

Tuesday, October 21, 2014 \$2.50 (incl GST)



Complex: Some of the many confusing parking signs in Sydney.

## Is this finally the end of our parking confusion?

**Leesha McKenny**  
Urban Affairs

To park or not to park?  
With sometimes complex directives and  
ranges on the road it can be an expensive  
question.

Now one Sydney council is turning to an idea  
from New York as a bold, visual solution to  
problematic parking signs.

Mosman Council wants the state's councils to  
lobby Roads and Maritime Services (RMS) to  
adopt a "time block" model put forward by a  
Brooklyn designer that it says will cut down the  
visual clutter as well as unfair penalties.

"Parking signs are often complicated and  
difficult to understand with multiple  
instructions for different parts of the day or  
week," the council's proposal to the Local  
Government NSW conference said.

"It is understood that this proposal represents  
a major change to the status quo, however this is  
something that could be explored and  
introduced on a staged basis over time across  
NSW."

It has been a year since New York City cleaned

**Continued Page 4**

|        | M-F      | Sat      | Sun      |
|--------|----------|----------|----------|
| 7am    | (P) Free | (P) Free | (P) Free |
| 8am    | (P) /    | (P) 1hr  |          |
| 8:30am | (P) /    | (P) 1hr  |          |
| 4pm    | (P) 1hr  |          |          |
| 7pm    | (P) Free | (P) Free |          |

Simple: Mosman council's proposed parking signs.

# A REDESIGNED PARKING SIGN SO SIMPLE THAT YOU'LL NEVER GET TOWED



BUSINESS  
INSIDER

## Finally, A Parking Sign That's Easy To Read

### Designing a Less Confusing Parking Sign

@joyclee

# Design Success!



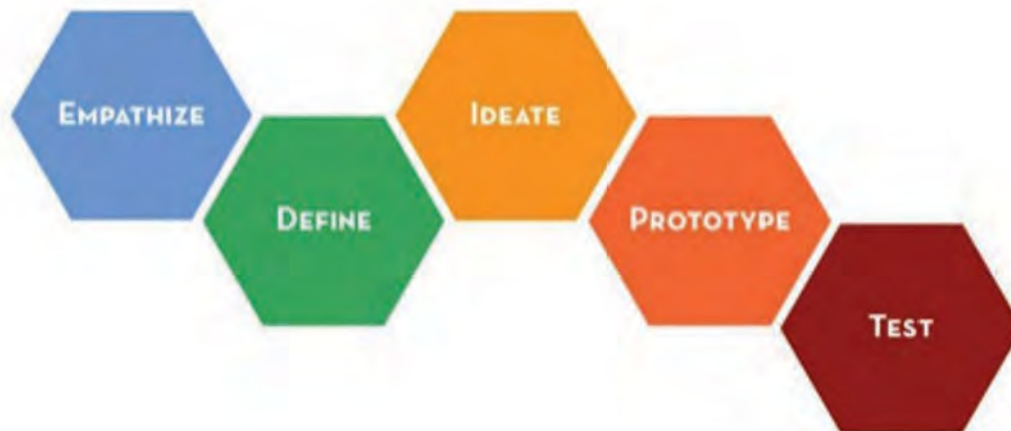
**“Up to 60% improved compliance”**

@joyclee

**Design is a form of  
problem solving.**

**Can the user  
accomplish  
their goal?**

# The Design Process



# Who is qualified to be a designer?



Pentagram



| PARKING SCHEDULE |     |     |     |
|------------------|-----|-----|-----|
|                  | M-F | SAT | SUN |
| 7am -            |     |     |     |
| 8am -            |     |     |     |
| 9am -            |     |     |     |
| 4pm -            |     |     |     |
| 7pm -            |     |     |     |
| 8pm -            |     |     |     |
| +                |     |     |     |

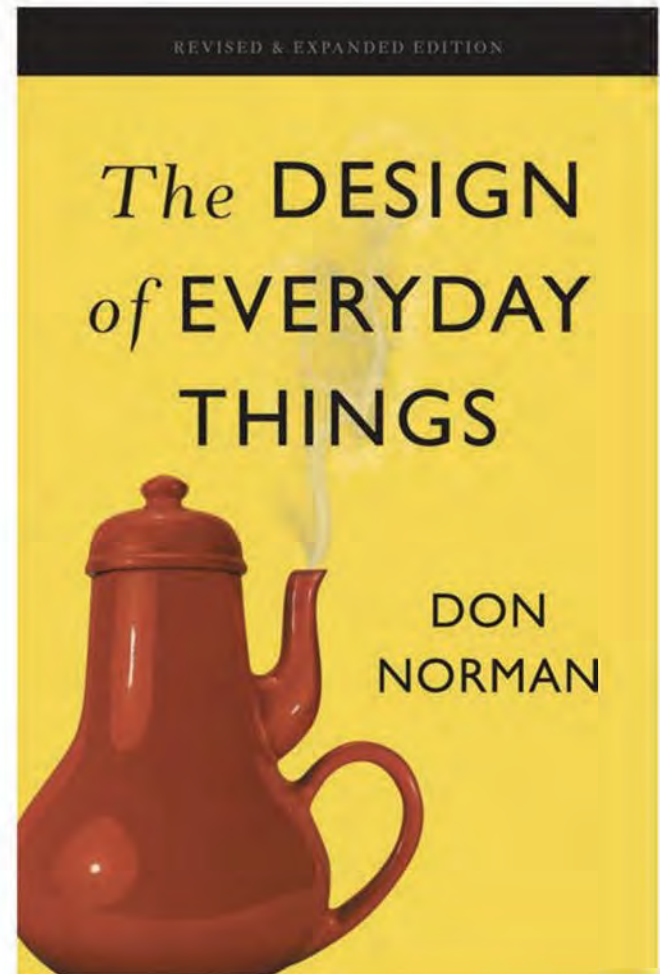


Graduate School  
Applicant

**YOU** are a  
**designer.**

(Welcome to the club.)

**What is  
human-  
centered  
design?**



# Human-centered Design

“An approach that puts **human needs**, capabilities, and behavior first, then **designs to accommodate** those needs, capabilities and ways of behaving.

## Participatory Design

“Don’t design for me, design with me”

# Interdisciplinary Workshop: Design My Diabetes Solution





# Empathy.

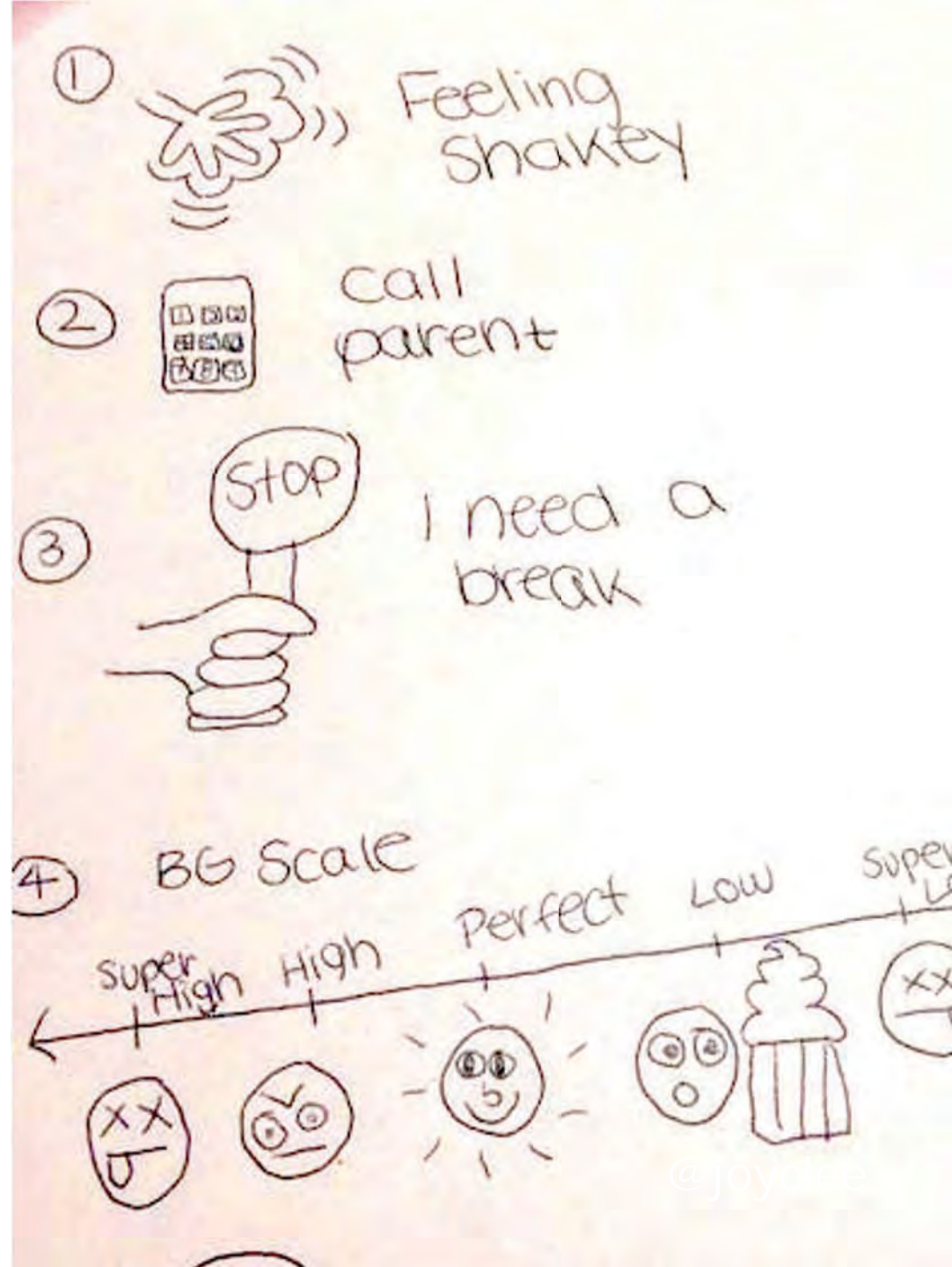
"I was really frustrated with texting blood sugars to my mom and dad," Reece says.

@joycee

# Define.

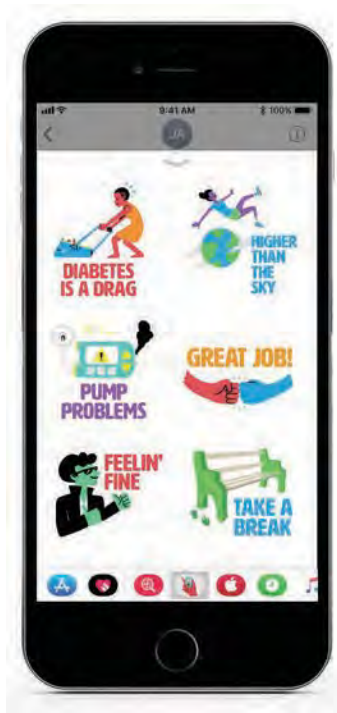
**How Might We**  
create a better  
experience for  
teen parent  
communication?

# Ideate.





# Prototype.



Prototype.

Test.

Prototype.

Test.

Prototype.

Test.

**Diabetemoji.com**

@joyclee

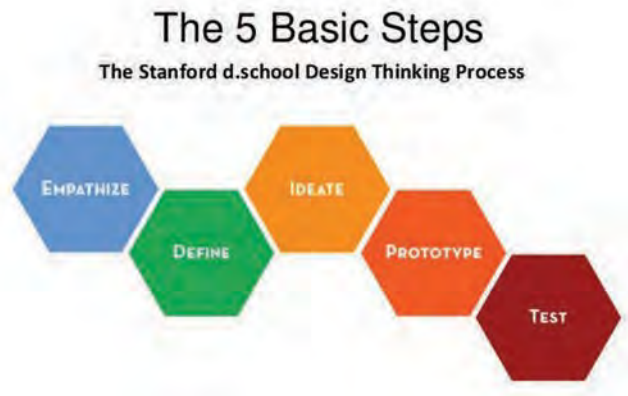
**Design ensures that  
you are solving the  
right problem.**

**Focus on your end-users:**

**Students and Learners**

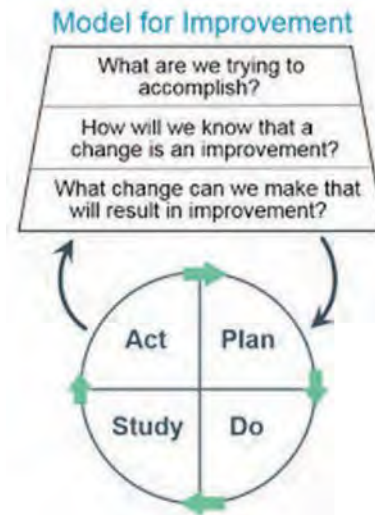
**Not the LCME, university  
administrators, accreditation  
bodies, Rackham**

# Design Thinking



Push boundaries, surprise,  
and delight

# Quality Improvement

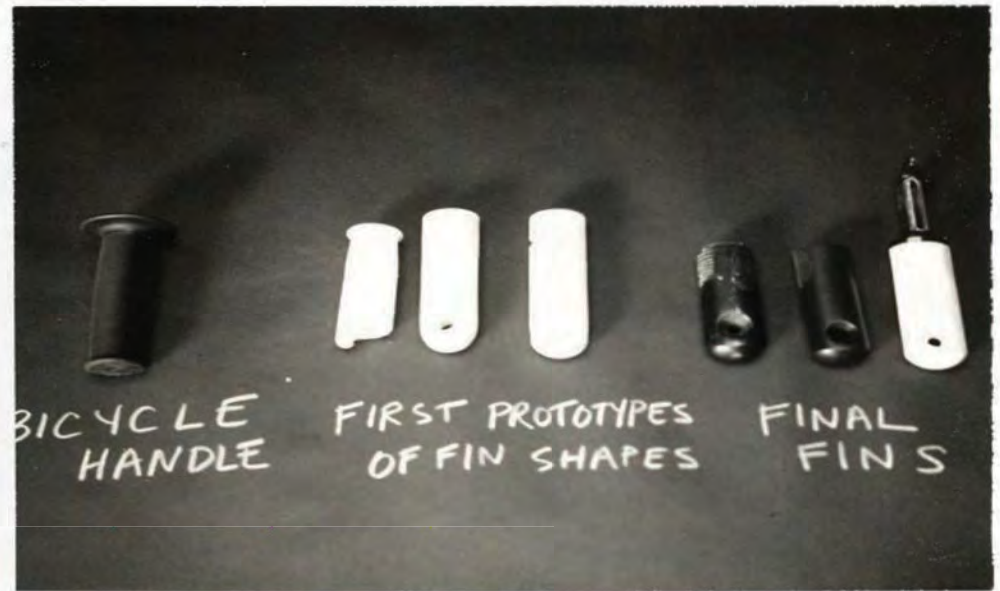


Measure and improve the  
ROI

**Design is  
about  
inclusion**



**“Universal  
Design”**





**Design is about optimism**

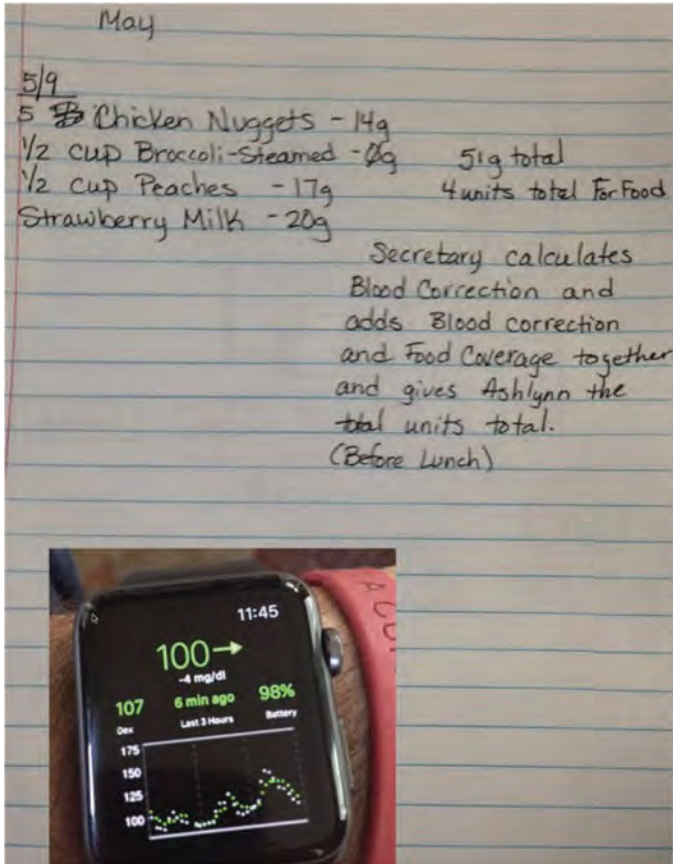
@joyclee



**Design is about survival**

@joyclee

# Design is about humility



# “Lead Users”

"it can also come off as arrogant when a designer fails to respect the solutions that already exist, particularly those that have evolved from within a community."

–Jan Chipchase

@joycee

# A Design Thinking Problem Every 15 Minutes

Patient Care!

com/lennyna

80971963817

9840



**Lenny Naar**

@lennynaar

Follow

It 's a mindset shift for me-being onsite at a hospital. Every interact ion is [#designresearch](#) . Just met a neurosurgeon, accidenta lly [#mhealth](#)

1:00 PM -2 Feb 2015 London, England, United Kingdom

1 FAVORITE

\*  
t.+

# **Our Challenge:**

**How might we design an ideal health science education experience?**

**How might we design a tailored health science education to our students' individual or specific needs?**

**How might we design a tool or experience to support for optimal student learning?**

# Empathy:

Interview your client about their experience as health science educators.

Ask open-ended questions: Who? What? Why?

**5 minutes per person**

# Define:

“**If** I had **asked my customers** what they wanted, they would have **told** me a faster horse.”

- Henry Ford

# Define:

Capture findings and reframe around your client's needs.

Create a new "how might we" statement defining the problem your client has.

**5 minutes individually**

# Ideate:

Write and draw out as many solutions as possible for your client's needs.

Be creative & have fun!

**5 minutes individually**

# Remember:

Defer judgement

Encourage wild ideas

Stay focused on the topic

Be visual

QUANTITY

# Share:

Gather your client's feedback on your solutions.

Use concerns to change the next iteration of your design!

**5 minutes per person**

# Prototype:

Sketch out your final design!

**5 minutes individually**

# Testing:

Elicit feedback from your client and discuss possible ways to begin testing your design.

**5 minutes per person**

# Report Out:

If anyone would like to share their solutions!

# What will be your parking sign project?

Resources: [www.doctorasdesigner.com/design](http://www.doctorasdesigner.com/design)

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| 4pm              | Ⓜ         |           |      |
| 7pm              | Ⓟ<br>FREE |           |      |
| 8pm              |           | Ⓟ<br>FREE |      |
| +                |           |           |      |

# THANK YOU!

## Acknowledgements

*Jacob Dwyer, Ashley Garrity, Valeria Gavrila, Emily Hirschfeld, Ram Menon,  
Amy Ohmer, The Nightscout Foundation*

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