You Gotta Problem?
Observation and needs finding to identify a problem worth solving

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Finding the Problem is the Hard Part

Instagram Co-Founder
Kevin Systrom

https://www.youtube.com/watch?v=XETaA1b6ep4
Instagram Co-Founder
Kevin Systrom

....the hard part is finding the right problem to solve.

....what were the top 5 problems with sharing photos through mobile devices.
Needs Finding

OBSERVATION

PROBLEM DEFINITION

VERIFICATION

https://www.soarwithmarybaker.com/finding-the-courage-to-express-your-needs/
OBSERVATION

WHAT

#forginabetteryou
The Boy in the Water
A WHAT Observation Exercise

1. The boy is in the water.
2. The weather is cold.
3. The tree branch is broken.
4. If the boy crawled out of the water the goat would butt him.
5. The boy fell off the branch.
6. A goat is standing by the pond.
7. The branch will fall on the boy's head.
8. The boy fell off the rocks.
9. There is a sailboat in the water.
10. The sailboat belongs to the boy.
11. The goat will soon leave the pond.
12. The tree by the pond has no leaves on it.
13. There are three rocks in the pond.
14. The tree by the pond is dead.
15. If it rains leaves will grow on the tree.
16. The goat butted the boy into the pond.
WHAT

• What is happening?
• What is the person doing?
• What is the person holding?
• What is happening in the background?
• Describe using *adjectives* and try to be as concrete as possible.

https://www.interaction-design.org/literature/article/how-to-develop-an-empathic-approach-in-design-thinking
WHAT IS HAPPENING?
March 15, 2020

March 17, 2020

OBSERVATION

HOW

WHY

#forginabetteryou

IT'S NOT ABOUT THE NAIL

https://www.youtube.com/watch?v=-4EDhdAHrOg
Cognitive Empathy

- Taking another person's perspective
- Imagining what it's like in another person's shoes
- Understanding someone's feelings

Emotional Empathy

- Sharing an emotional experience
- Feeling distress in response to someone's pain
- Experiencing a willingness to help someone

https://www.verywellmind.com/cognitive-and-emotional-empathy-4582389
Take Their Perspective  
Consider Emotion  
Withhold Judgment

Empathy here.

https://blog.fullstory.com/use-empathy-to-build-better-products/
https://www.interaction-design.org/literature/article/how-to-develop-an-empathic-approach-in-design-thinking
Skills Strengthened by Empathy

- Creativity
- Feeling safe
- Collaboration
- Emotional Connection
- Identifying Needs
- Negotiation
Empathy requires us to put aside our learning, culture, knowledge, opinions, and worldview purposefully in order to understand other peoples’ experiences of things deeply and meaningfully. It requires a strong sense of imagination for us to be able to see through another person’s eyes. It requires humility so we can seek to abandon our preconceived ideas and biases. It requires that we have a heightened awareness of other peoples’ needs, wants, motivations and goals....

Empathic observer[s] .... gain a deep[er] understanding of the people for whom [they] are designing.
Empathy Map

What I saw/heard them:  What I thought they were:

[Blank diagram with sections for SAY, THINK, FEEL, and issues]

Insights

Problem statement
Stakeholder

NEEDS A WAY TO

Need

BECAUSE

Insight

Design Thinking Action Lab 2013
• In *How*, describe how the person is doing what he or she is doing. For instance, is the person putting in a great deal of effort? Is the person frowning or smiling while doing the task? Does the person use many ad-hoc tools to make the task easier? Try to describe the emotional impact of performing the task.

https://www.interaction-design.org/literature/article/how-to-develop-an-empathic-approach-in-design-thinking
Finally, in *Why*, try to interpret the scene. Why do they do it that way? Why does the person feel the need to do this? Why do they experience the emotions they do? Why don’t they do something else? Why are others [not] helping? Why is it acceptable to do it this way?

https://www.interaction-design.org/literature/article/how-to-develop-an-empathic-approach-in-design-thinking
PROBLEM DEFINITION

• Evaluate problems based on the inputs
  • Why does the problem occur?
  • What are the possible explanations and causes?
  • What are the health/social/medical/market/psychological implications of the problem?
• Who are the stakeholders? Who is impacted?
  • Customers, Providers, Companies, Society
  • How are they negatively impacted?
    • Time, money, safety/risk, inconvenience, ease-of-use, productivity, etc.
• How severe is the problem?
• In what setting does the problem occur?
FIGURE 1.3.1
An effective need statement typically includes three essential components.

Problem

Population

Outcome

Need Statement

“A way to address (problem) in (population) that (outcome)”
OUTCOMES

- Safety
- Cost
- Time
- Effort
- Ease of Use
- Comfort
- Aesthetics
- Emotions
- Manipulation
- Tooling
- Brain Power
NEEDS STATEMENT

Figure 1.3.1
An effective need statement typically includes three essential components.

Need Statement
“A way to address (problem) in (population) that (outcome)”

Figure adapted from Yock, et al. Biodesign 2nd Ed. 2015
PROBLEM OBSERVATIONS
- People normally want to shake hands
  - Which People? How many are there?
- It is a cultural norm, and valued as a greeting
  - How much so? By Who?
- They are scared about COVID-19 transmission
  - What facts support this? Is it really spread that way?
- They feel awkward greeting in other ways
  - Really? Did you ask them? What are their biases?

NEEDS STATEMENT
Business professionals need a safer and more dignified method of undertaking physical salutations during COVID-19
Needs Finding

Observation

Problem Definition

Verification

https://www.soarwithmarybaker.com/findi