

# Flow State Experience:

Feel the first principles of lean  
through role playing and simulations with Lego!  
Amplified by music!

The Flow State Experience is  
... the artistry of role playing  
... the tactile joy of building with Lego  
... both stress and then calm amplified by music

To go together through  
... a shift from self-consciousness to empathy  
... the feeling of group flow  
... an emotional kinetic response to the question  
"what do we feel about waste?"



Live results link:

[https://www.mentimeter.com  
/app/presentation/alq1bfwu  
9xrxbeapnafi87kxve8r3pqt](https://www.mentimeter.com/app/presentation/alq1bfwu9xrxbeapnafi87kxve8r3pqt)

## Connect to Your Facilitators:

- Charlie Dunn, DPR, <https://www.linkedin.com/in/projectstory/>
- David Stutzman, Conspectus, <https://www.linkedin.com/in/davidstutzman/>
- Al Schwarzkopf, Wood, <https://www.linkedin.com/in/schwarzkopf-albert-03b7415/>
- Clark Ellis, Continuum, <https://www.linkedin.com/in/clarkellis/>
- Craig Davis, DPR, <https://www.linkedin.com/in/craig-davis-85853a10/>
- Jeff Sample, Join, <https://www.linkedin.com/in/ironmanofit/>
- John Strickland, Collaborative Flow, <https://www.linkedin.com/in/j-strickland/>
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- Steve Gantner, Conspectus, <https://www.linkedin.com/in/steve-gantner-ba4b242/>
- Sue Boyle, Haley Aldrich, <https://www.linkedin.com/in/sue-boyle-08894676/>
- Tom Arrigo, DPR, not on the internet
- Yash Lalwani, DPR, <https://www.linkedin.com/in/yashl/>

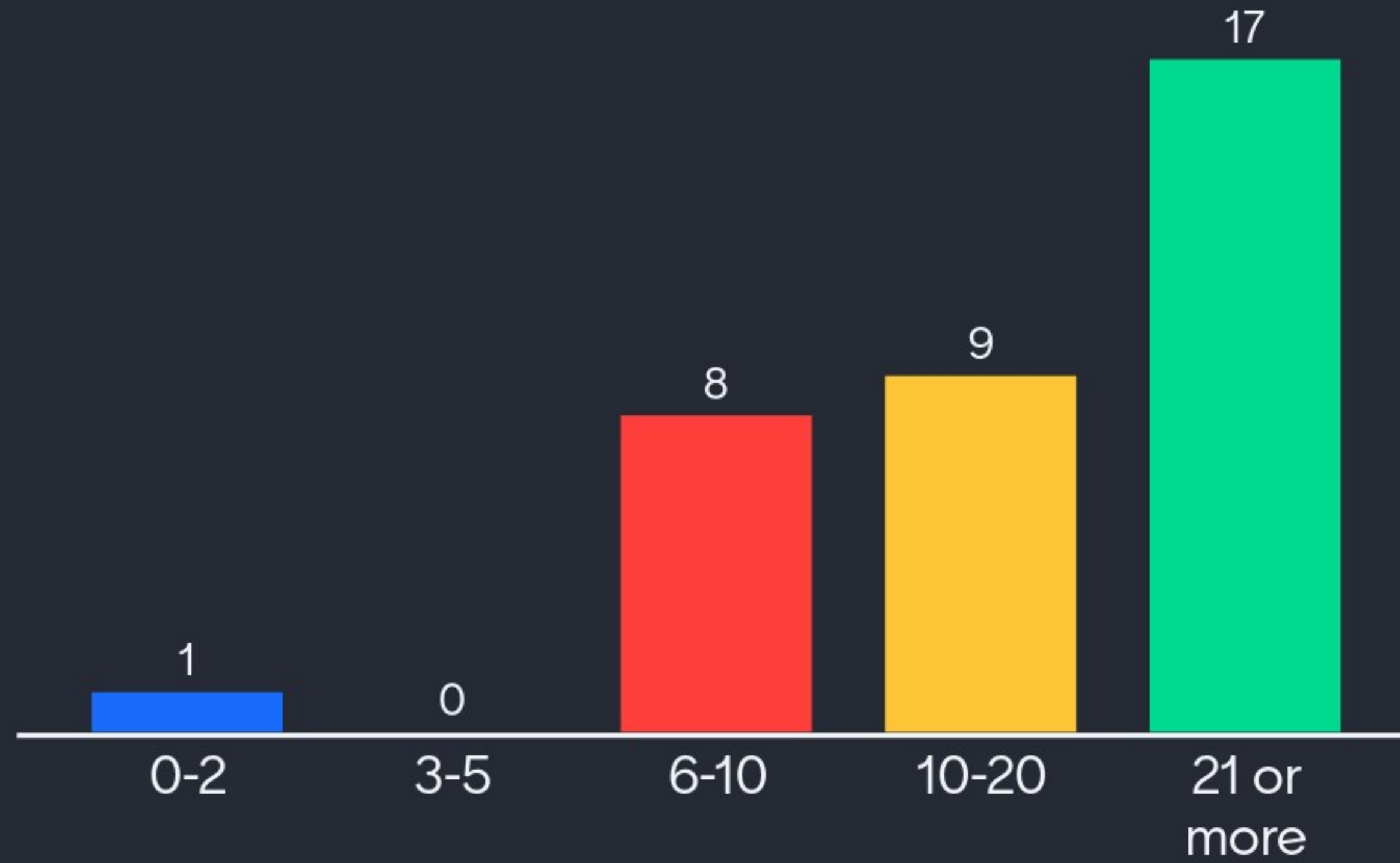
# Where were you born?



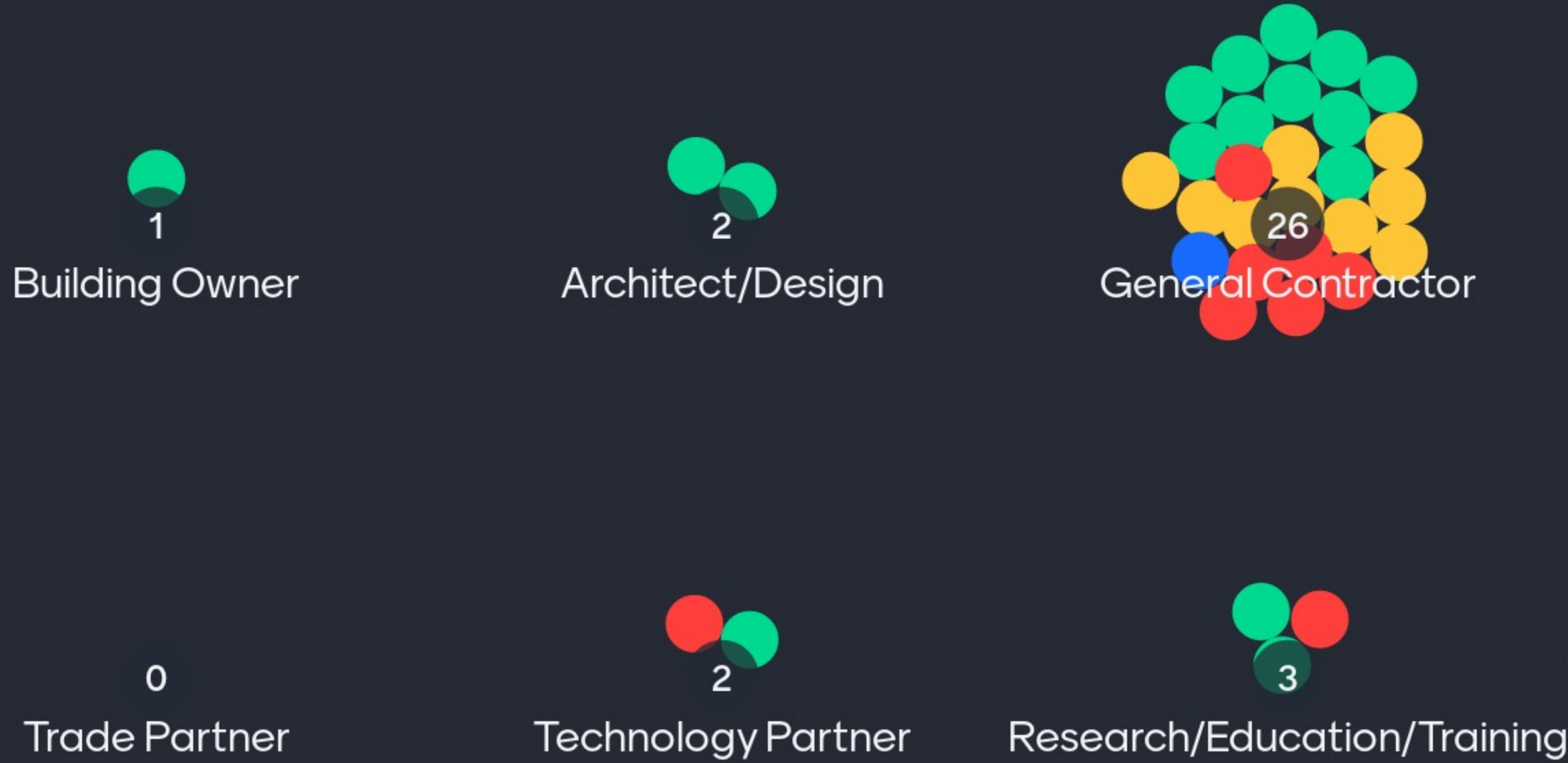




# How many years of construction experience do you have?



# The company I represent today:

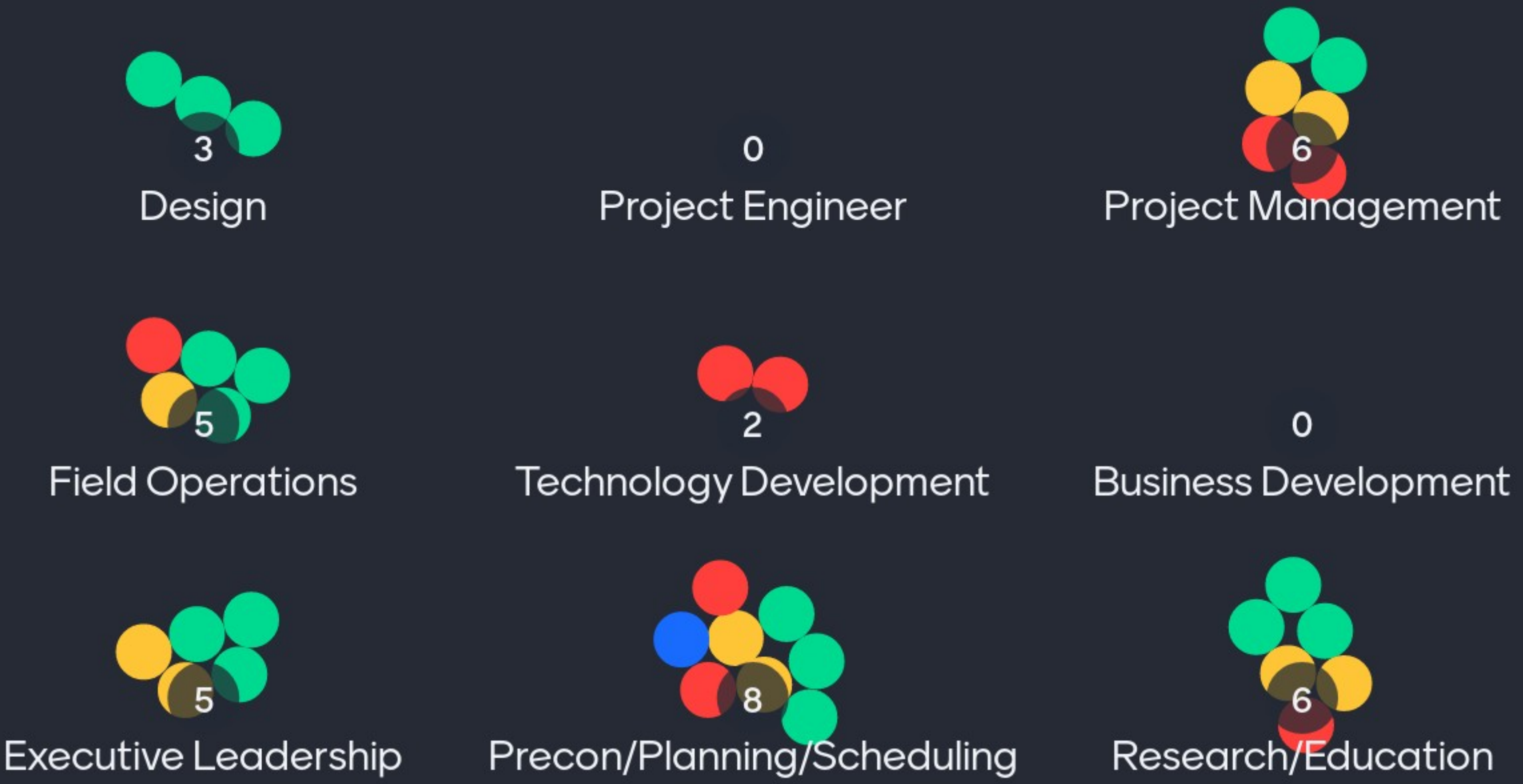


How many years of construction experience do you have?

- 0-2
- 3-5
- 6-10
- 10-20
- 21 or more



# My primary role:



How many years of construction experience do you have?

- 0-2
- 3-5
- 6-10
- 10-20
- 21 or more

# How do you feel about the future of construction?



How many years of construction experience do you have?

- 0-2
- 3-5
- 6-10
- 10-20
- 21 or more

# Trust Matrix

Topic:	-4	-3	-2	-1	0	1	2	Score
Environment	Disdained	Toxic	Stressful	Worry	Safe	Positive	Uplifting	
Focus	Open Battle	Escalation	Pre-emption	Process	Scope	Outcome	Mutual Success	
Relationships	Enemies	Hostile	Disrespect	Indifferent	Cordial	Cooperative	Collaborative	
Process	Retribution	Sabotage	Hidden agendas	Chain of command	Task at Hand	Keeping promises	Making it Easier for Others	
Behavior	Create Pain	Micromanage	CYA	Do my job	Respect	Partnering	Transparency	
Outcomes	Lawsuits	Tit for Tat	Politics	Slow	Efficient	Learn from mistakes	Improve	
Systems	Chaos	Dysfunctional	Distracting	Hassle	Does not get in the Way	Supportive	Flexible	
Ethics	Duplicity	Obstruction	Self-interest	Compliance	What is Expected	What is right	What is Good	
Schedule	Weapon	Done to the Trades	Basis for Claims	Confusing	Collaboration with the Trades	Manage Priorities	Time Machine	
<b>Total</b>								<b>0</b>

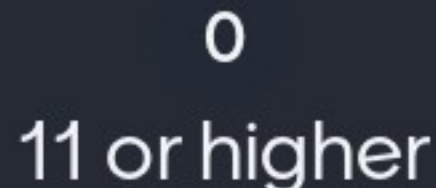
# Pause, take a deep breath, and think of the most challenging project in your career

- Circle the word that best describes how your project felt for each row
- Put the numeric value at the top in the far right column for each row
- Total your project score

Topic:	-4	-3	-2	-1	0	1	2	Score
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Focus	Open Battle	Escalation	Pre-emption	Process	Scope	Outcome	Mutual Success	
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<b>Total</b>								<b>0</b>

# To get back to Menti

# What was your project score?



How many years of construction experience do you have?

- 0-2
- 3-5
- 6-10
- 10-20
- 21 or more
- Unknown



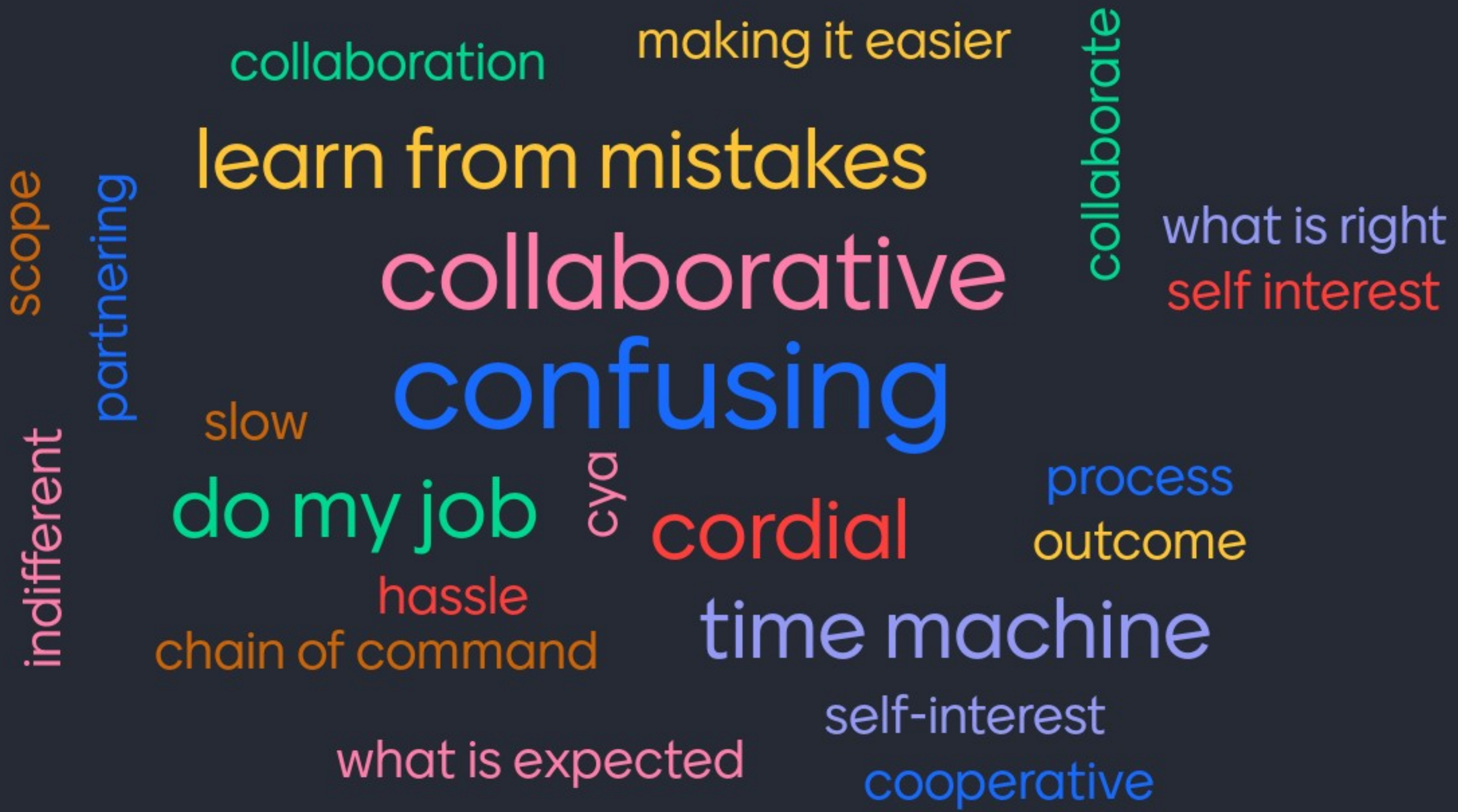
# What was the worst word for your project?

33 responses



# What was the best word for your project?

32 responses



# Numbers: Simple Instructions

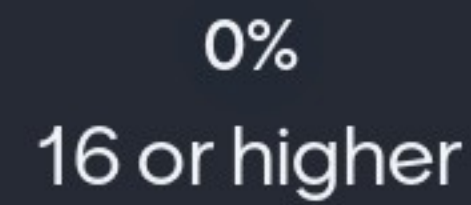
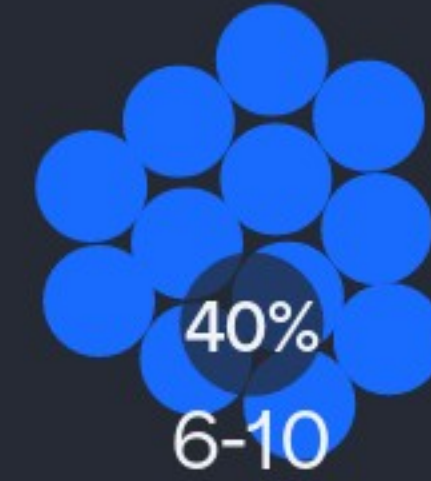
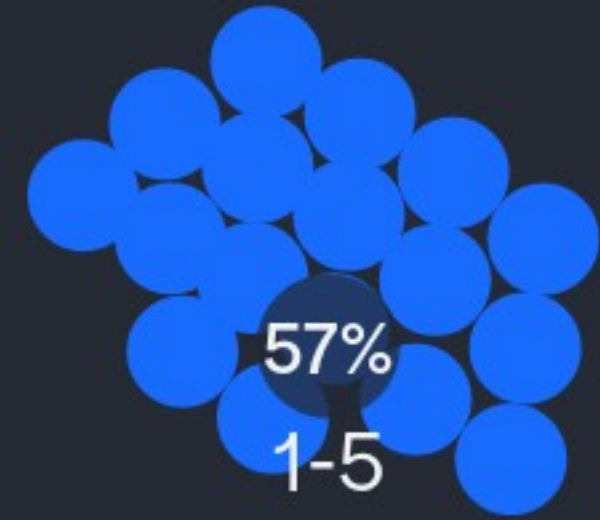
- Turn over the top page of the stack of eight pages (keep all other pages face down)
- Strike through or circle numbers one - (as high as you can)
- You have 20 seconds
- Be sure the P number in the gray box in the top left matches (P1 first, then P2 ...)

# Do you have P1 in the top left corner of your paper or pdf?



P1

# P1: What was your highest number?



# P1: How does this remind you of a current work process?

35 responses

Jobsite material management

Time

Paying daughters medical bills

Chaos

Find files

Move only as fast as the slowest trade

No set process

Doing expense sheet

List of tools and softwares,  
haphazard

# P1: How does this remind you of a current work process?

35 responses

Change order processing

Everything thrown at someone

Change order log not organized by status

Things were not organized

Only as fast as your slowest work package

Random

Schedule logic

Only as fast as the slowest person

Schedule



# P1: How does this remind you of a current work process?

35 responses

Changes

Chaotic

Trying to do a work plan with unprepared trades

Communication, speed, and transparency

Working with IT

Finding who can make a decision

Hectic

Schedule logic

We don't have standard processes

# P1: How does this remind you of a current work process?

35 responses

No direction, no alignment

EMAIL!!

Take off

A single bottle neck changed capacity of the team to succeed.

Conducting after action reviews

Change process

Drawing review

Scheduling with new super

P2

# P2: What was your highest number?



## P2: What made this easier than P1? What are ways to remove waste and inventory from construction?

21 responses

Less numbers

Less clutter

Less waste

Less inventory

We had done it before

Familiar process

Less clutter

Less numbers

Spaced part

## P2: What made this easier than P1? What are ways to remove waste and inventory from construction?

21 responses

Less clutter

Less clutter

Numbers in same spots

More white space

Less stuff

Less cluttered

Minimize supplies until you need them

Less shit in the way

Less numbers

P2: What made this easier than P1? What are ways to remove waste and inventory from construction?

21 responses

Search image

Less numbera

Easy

P3





# P3: What was your highest number?



P3: What made this easier? If you saw a pattern, did you share it with your table? How can we establish flow and small batch in construction?

19 responses

Pattern	We tried	Location based planning
Share the plan	Set rules expectations	Measure
Pattern and sort	No	Communication

# P3: What made this easier? If you saw a pattern, did you share it with your table? How can we establish flow and small batch in construction?

19 responses

Repetition

Check plan

Collaboration

Focus and flow

Specific pattern

Reduce work in plan

Creating a reoccurring pattern of work activities

Able to configure more easily

Smaller batch of numbers

P3: What made this easier? If you saw a pattern, did you share it with your table? How can we establish flow and small batch in construction?

19 responses

Write a process, SOP

<p>30</p> <p>21</p> <p>39</p> <p>3</p> <p>12</p> <p>48</p>	<p>24</p> <p>42</p> <p>6</p>	<p>33</p> <p>15</p>	<p>27</p> <p>18</p> <p>45</p> <p>36</p> <p>9</p>
<p>2</p> <p>47</p> <p>11</p> <p>38</p> <p>29</p> <p>07</p>	<p>3</p> <p>41</p> <p>14</p> <p>5</p> <p>23</p>	<p>26</p> <p>17</p> <p>8</p> <p>35</p>	<p>44</p> <p>17</p> <p>8</p> <p>35</p>
<p>28</p> <p>10</p> <p>37</p> <p>19</p> <p>46</p>	<p>31</p> <p>22</p> <p>40</p> <p>13</p> <p>4</p>	<p>16</p> <p>43</p> <p>34</p>	<p>7</p> <p>25</p>



# Small Batch



P4



# P4: What was your highest number?

0  
1-5

0  
6-10

0  
11-15

3  
16-20

0  
21-25

6  
26 or Higher



# Flow



P5



# P5: What was your highest number?

0  
1-5

1  
6-10

2  
11-15

2  
16-20

2  
21-25

0  
26 or Higher

# Why did your score go down? How do we interrupt flow in construction?

12 responses

Go back work

Distractions

Out of sequence

Crazy Ivan

Had to figure out which square a number was in

Had to multitask

Through off thought process

Interruptions in flow

Task switch

# Why did your score go down? How do we interrupt flow in construction?

12 responses

Couldn't shit out the noise

Interruptions, unforeseen  
circumstances

Interruption

P6



# P6: How did this feel compared to P1? What if we made standard work feel like this?

7 responses

Great!

There's no reason we can't

Too easy

Inchallenged

Morale would go up

Too easy

Easy

P7





P7: What numbers are missing?

4 responses

42 18

P8



## P8: How does standardization and flow help with missing information or disruption?

6 responses

It becomes obvious

Can help keep flow state

Easily analyze issues

Stands out

Stay on top of things

Makes easier to translate

we give away time  
time costs money  
money is expensive

# Time for Trouble



WIP



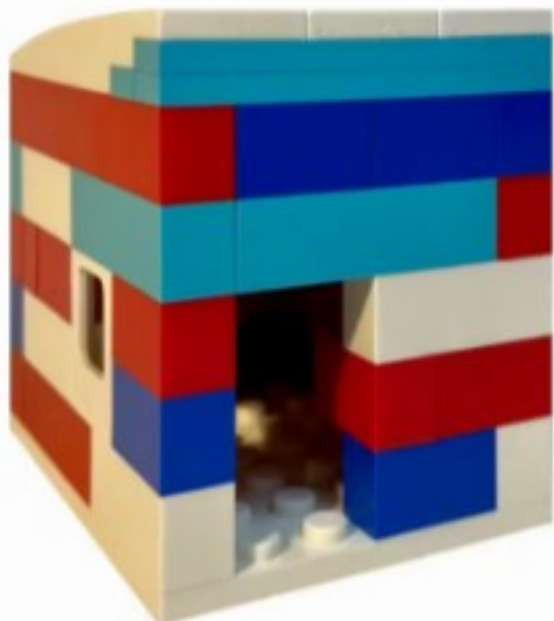
# Value Stream Mapping

# Building Simulation Large Batch

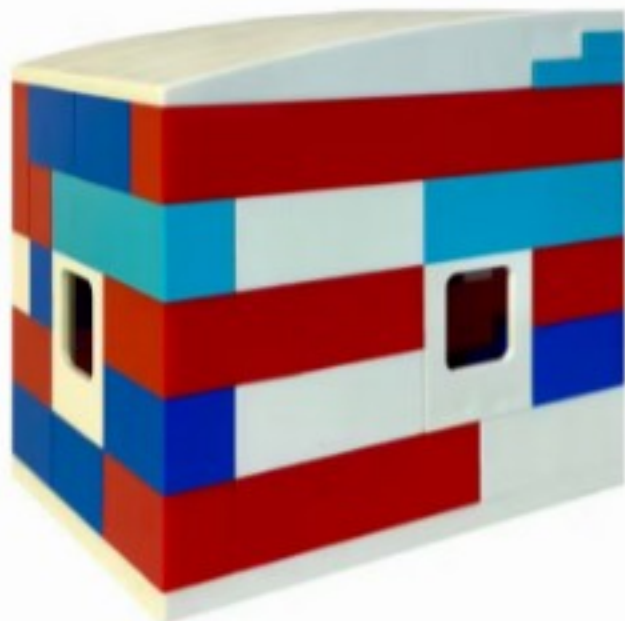
- Choose your role playing sheet
- Split the legos by color as noted on the trade sheets
- Build with the included design
- Owner expects substantial completion in 3 minutes







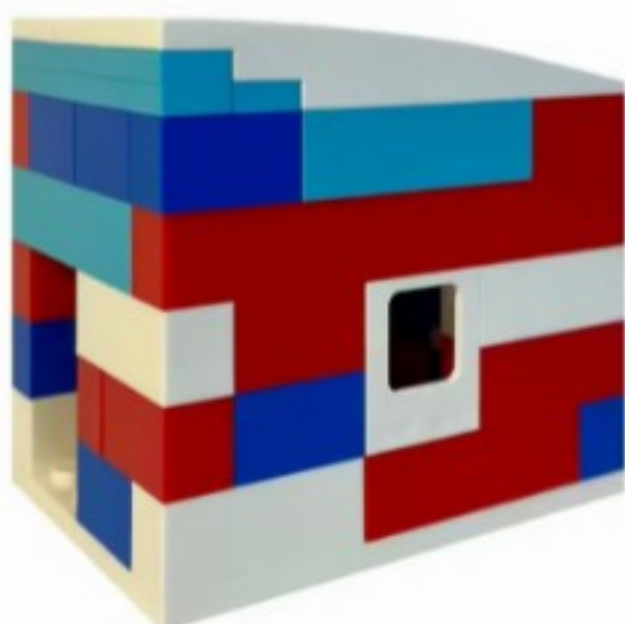
Front



Left



Back



Right













# Darth Vader, when will you finish?

1  
6 minutes

0  
7 minutes

0  
8 minutes

4  
9 minutes

3  
Never

# What made this building difficult to finish? What would make your role easier? Any comments on a team member?

43 responses

Yodas an ass

Super yelling

Chaos

Poor communication

Yoda didn't help

Too many people throwing orders

Everyone working against each other

Electrician storm troopers

Vader is terrible kept interrupting as we tried to solve



# What made this building difficult to finish? What would make your role easier? Any comments on a team member?

43 responses

The wookie was trouble

No team. No collaboration.

No plan, no team, not everyone doing productive work, no alignment

Chewbacca can't read the drawings

Communication and being able to know what was on other people's page.

Communication and being able to know what was on other people's page.

Annoying team members

Need a sequence of work dictated by gc

Hostile environment

# What made this building difficult to finish? What would make your role easier? Any comments on a team member?

43 responses

Better communication

Team members were not competent

Storm trooper was slow

Each member had their own agenda

The superintendent was useless

Poor planning, lack of communication, cooperation, and any instance of team work

Yoda can take his 800 years of experience and move on

He must be hung over

Gaming the system

# What made this building difficult to finish? What would make your role easier? Any comments on a team member?

43 responses

Darth kept interjecting

Out of sequence work

No communication Supt was not respected Supt didn't have control

Better quality design docs

If we could see the problems

Color blind

Pissing me off every minute on this job

GC adding no value

No plan

What made this building difficult to finish? What would make your role easier? Any comments on a team member?

43 responses

Yoda was exceedingly unhelpful.

Builders didn't go fast enough

Different priorities and not pulling in the same direction

Death Vader got in the way

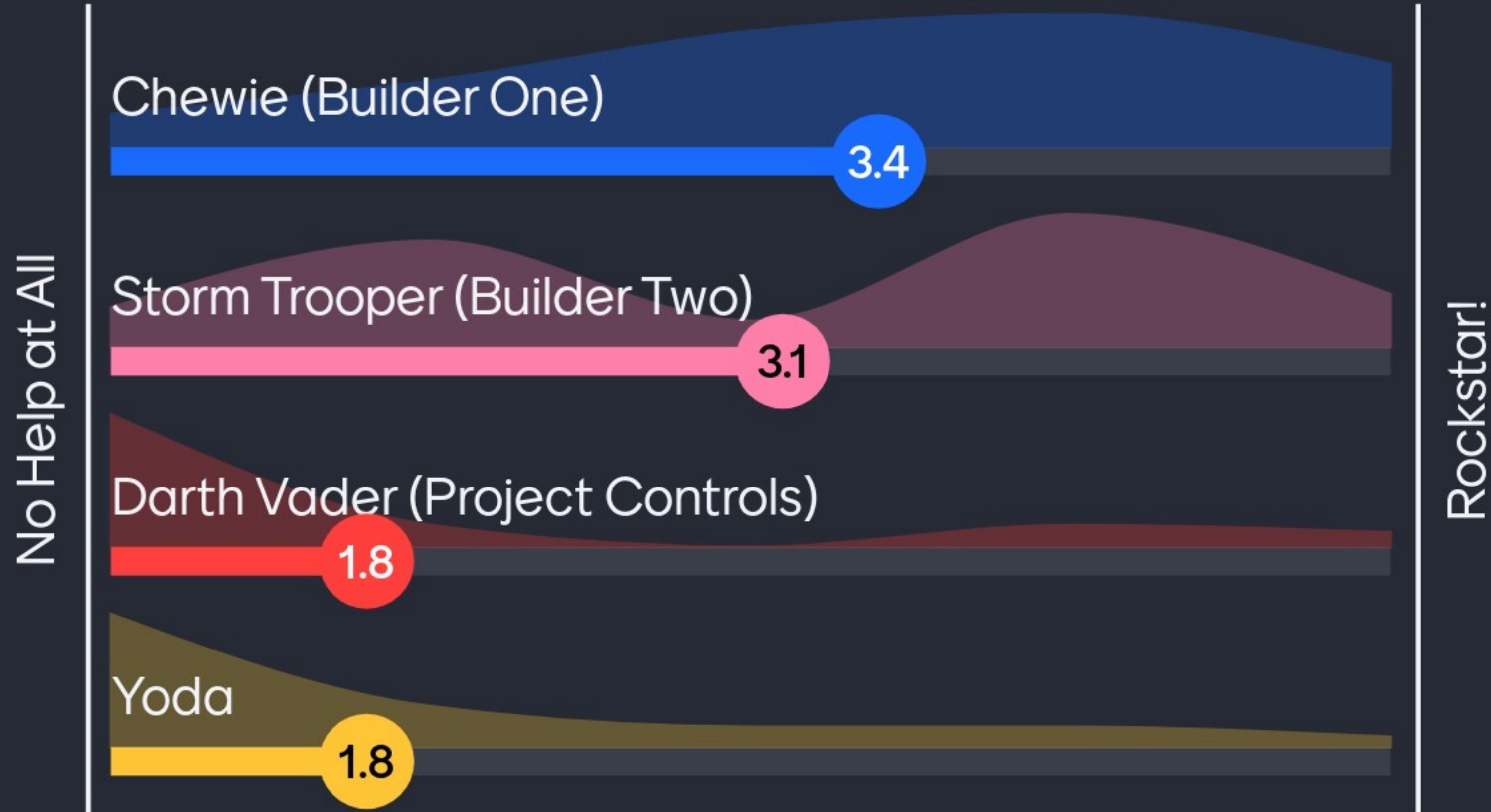
Drawings were garbage.

Vader is a jerk

Better documentation

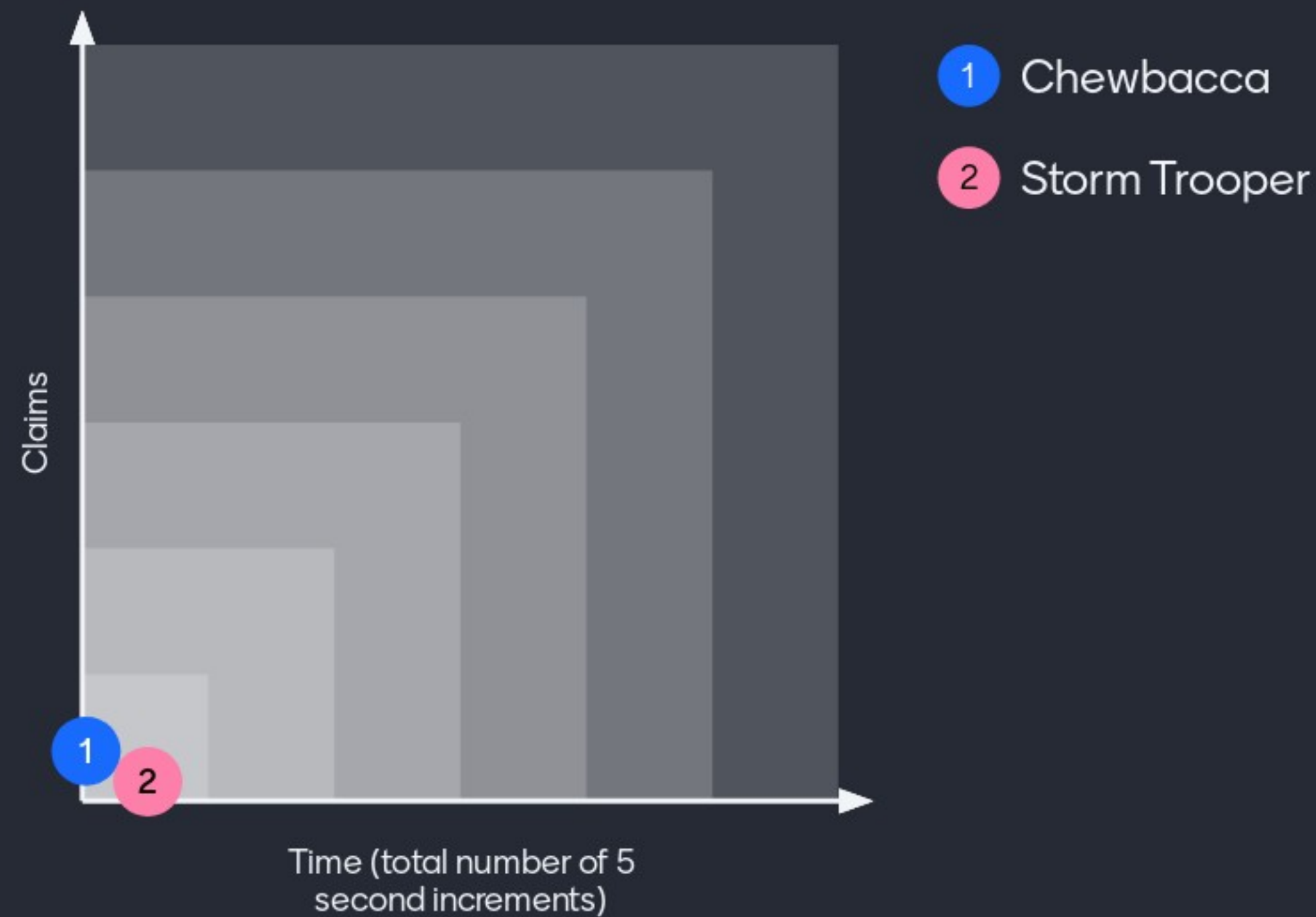
Take apart your  
pieces but keep the  
roof pieces  
together

# How valuable was each role?



# Quality at the Source

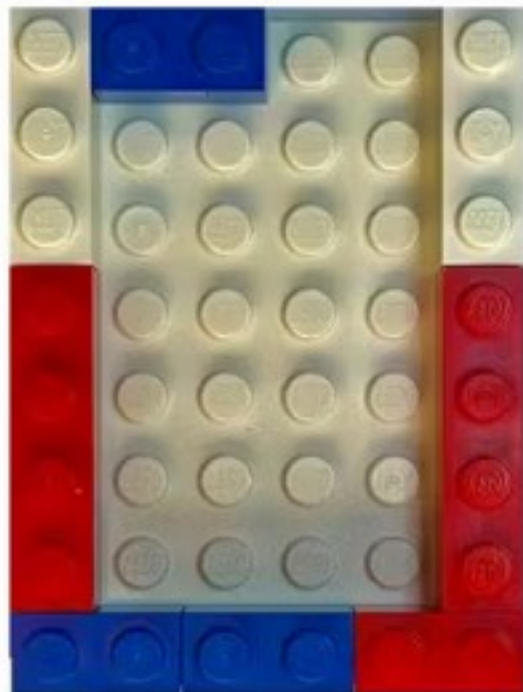
# Darth Vader only, how many claims or change orders did each role have, and for how much total time impact?



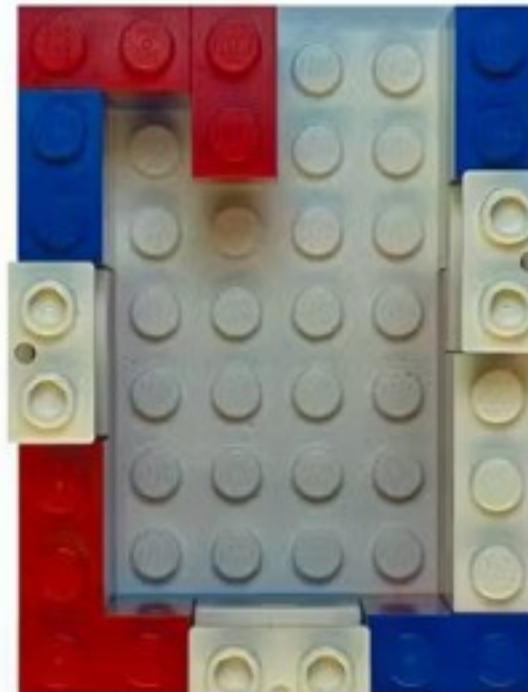


# Building simulation with Takt

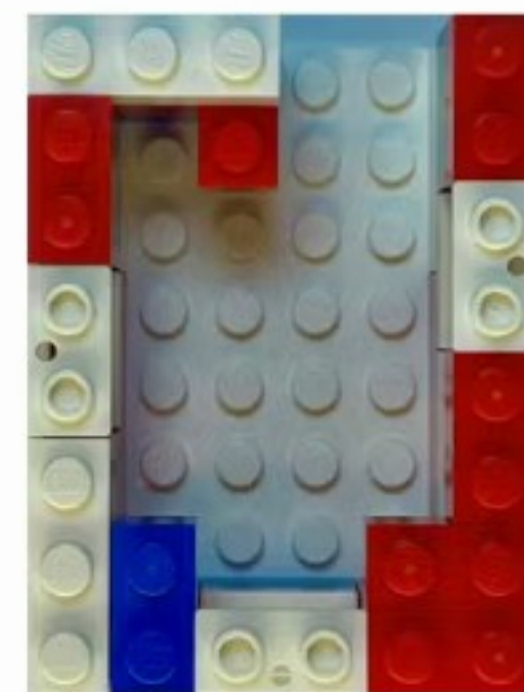
- Job 1: Build Trust!! Work together as friends
- Darth Vader will focus on quality
- All Roles help prestage the legos for each level on the new design sheets
- Owner expects substantial completion in 1 minute



Layer 1



Layer 2



Layer 3



Layer 4



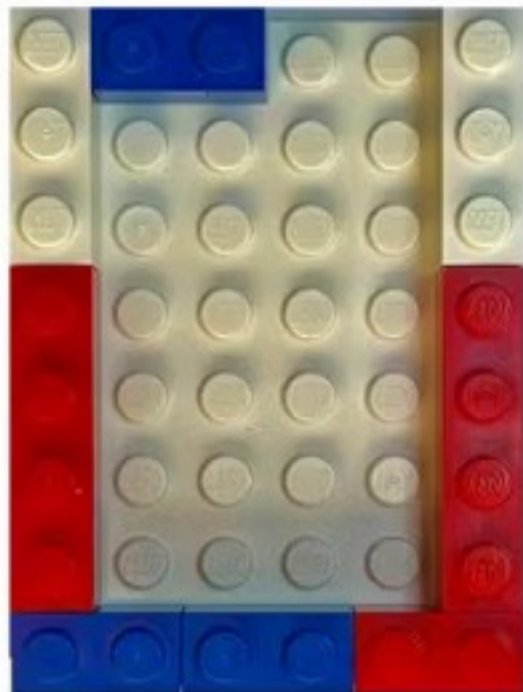
Layer 5

Prefab Roof  
Layer 6



<b>Takt</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>		<b>Total</b>
<b>Pieces</b>	<b>8</b>	<b>11</b>	<b>8</b>	<b>6</b>	<b>8</b>	<b>6</b>		<b>47</b>
<b>Chewie</b>	<b>5</b>	<b>7</b>	<b>3</b>	<b>1</b>	<b>5</b>	<b>3</b>		
<b>Storm Trooper</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>3</b>		
<b>Takt %</b>	<b>17</b>	<b>23</b>	<b>17</b>	<b>13</b>	<b>17</b>	<b>13</b>		<b>100</b>
<b>Total %</b>	<b>17</b>	<b>40</b>	<b>57</b>	<b>70</b>	<b>87</b>	<b>100</b>		
		*				*		

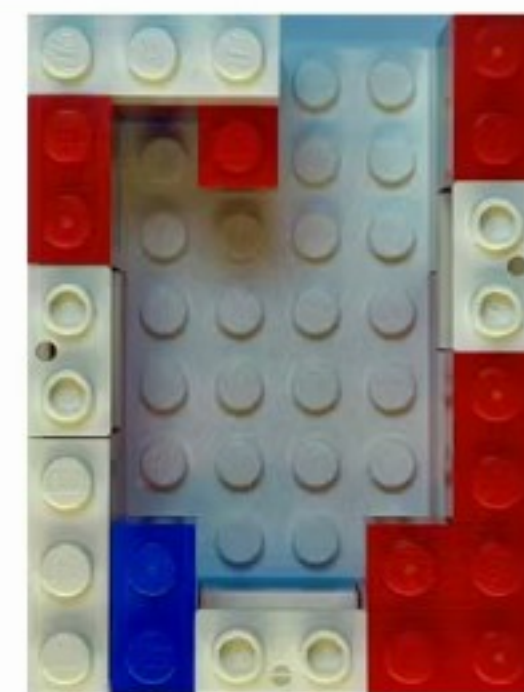




Layer 1



Layer 2



Layer 3



Layer 4



Layer 5

Prefab Roof  
Layer 6



# Production Math

# Pause and Reflect



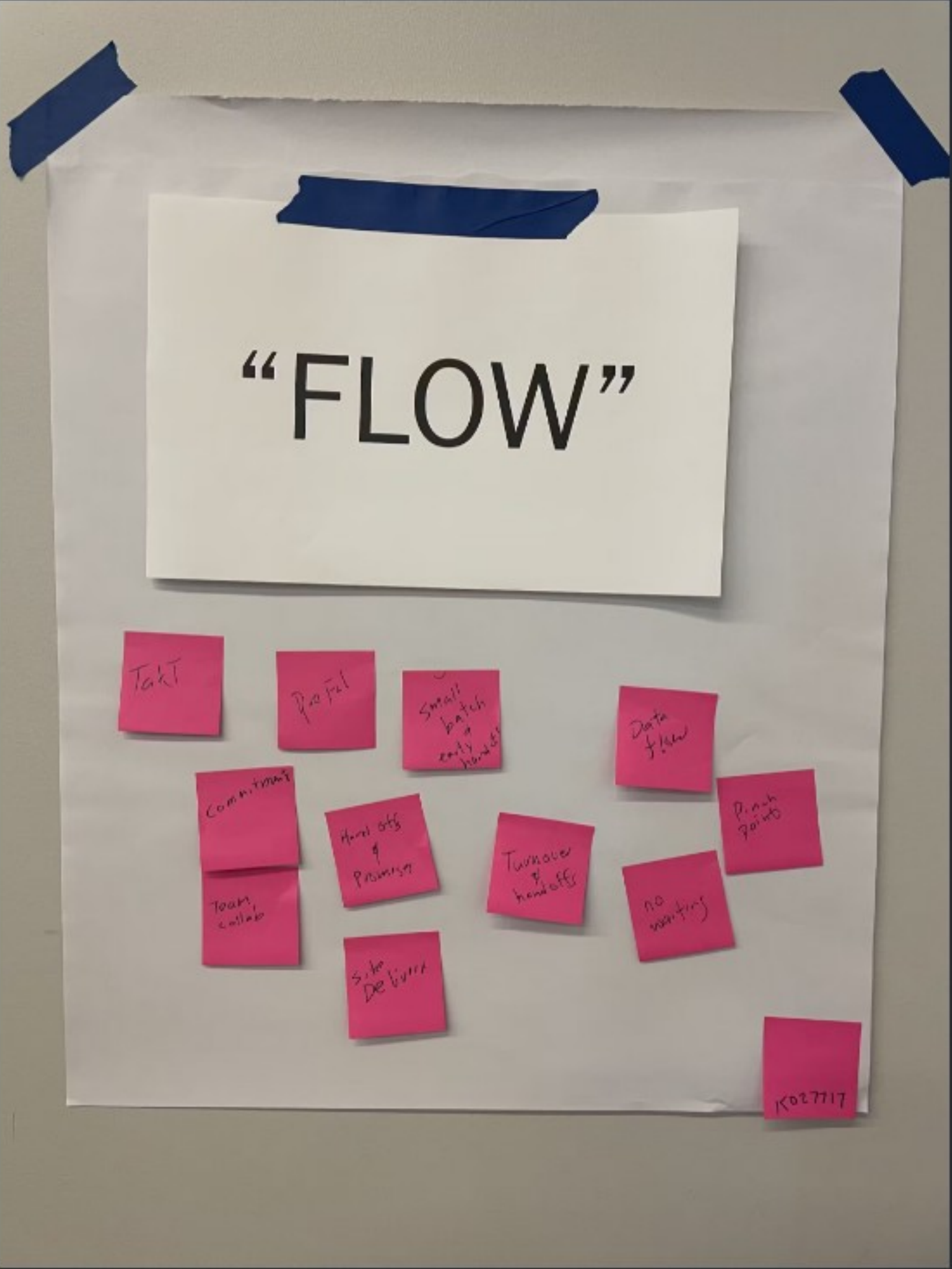
# Play?

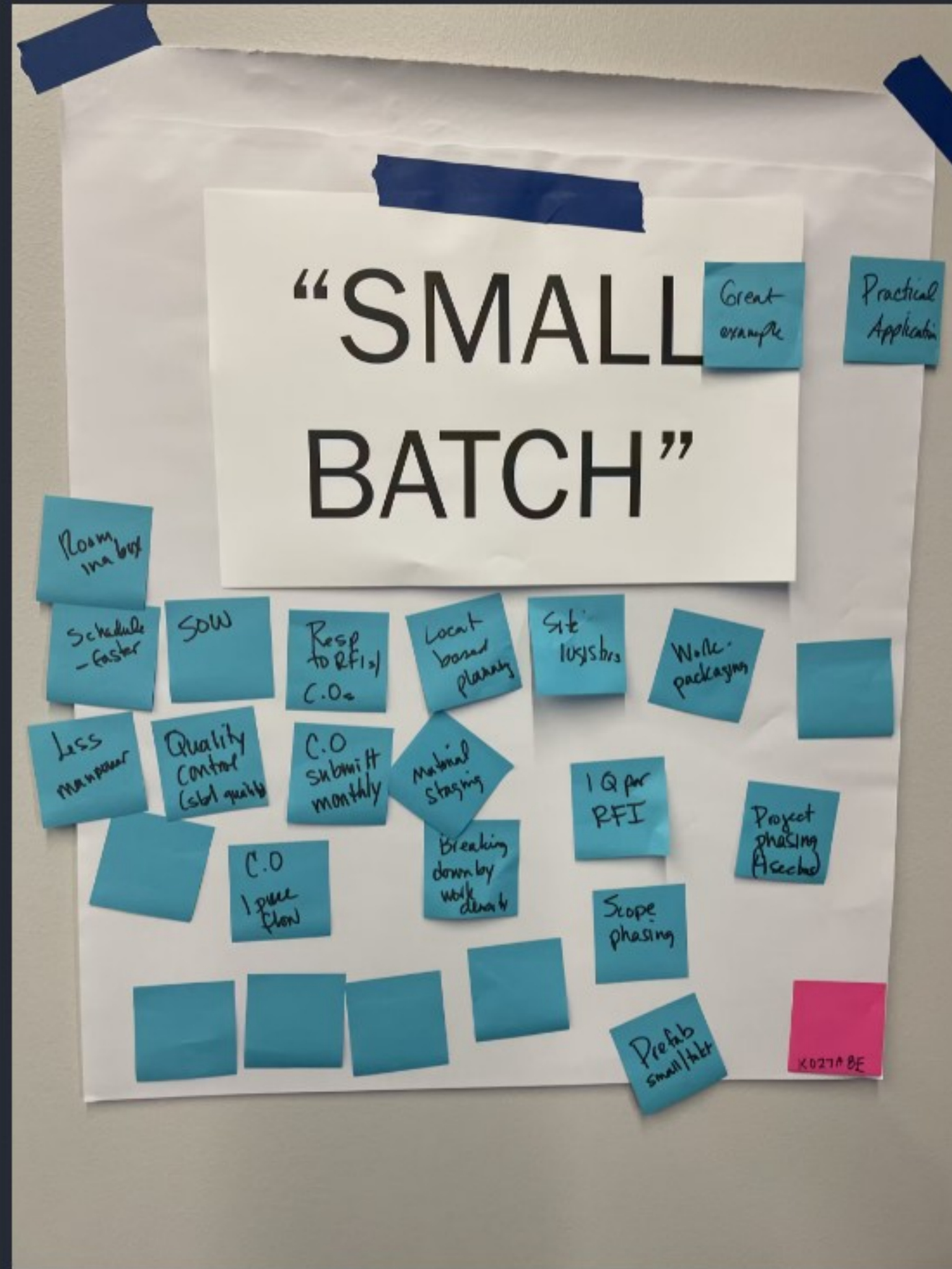
# Conspicuous Design Experience



# Room in Takt







Example

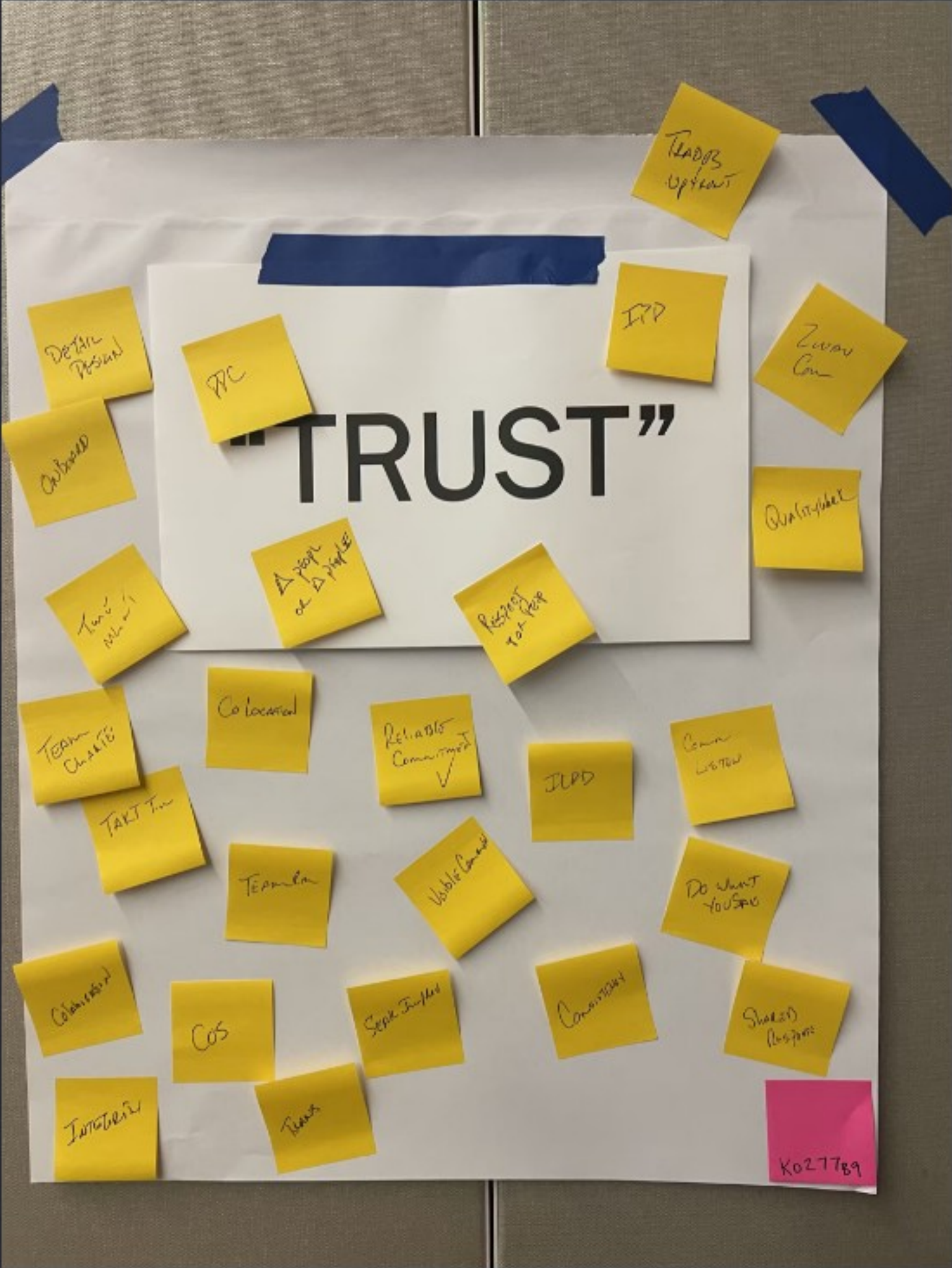
Practical Application

# "PRODUCTION MATH"

Pieces of steel per day	Time motion studies	Production Scheduling	TAKT time planning	Historical metrics
Balance work load	Crew Flow	Predictability	Substrate processing speed	1st Run studies

40000





# Thank you Kwant for Flow Visualization!

- Niran Shresta, Kwant, <https://www.linkedin.com/in/niranjanshrestha/>
- <https://www.kwant.ai/>

90%

Opportunity



# My favorite takeaway from the Flow State Experience (in one word)

57 responses





# Please List any plus/delta (+, -) for this experience ...

0 responses with votes

Other responses

Great energy

Excellent training on flow

+ this was one of the best sessions I've been apart of

- I want to see takt with construction not just simulation

+interactive

Awesome hands on activities

+good energy+fun activity

Good session

+ Hands on learning

## Please List any plus/delta (+, -) for this experience ...

0 responses with votes

### Other responses

Very good session with high interactivity. Presenters have good energy

Good content, presented well

Conspectus was a good addition to session

Good actionable learning tools & examples

Well done

-had to rush last 30 min with a lot of info

Imagine that which is not, and take  
others there with you

– *Charlie Dunn*



## Connect to Your Facilitators:

- Charlie Dunn, DPR, <https://www.linkedin.com/in/projectstory/>
- David Stutzman, Conspectus, <https://www.linkedin.com/in/davidstutzman/>
- Al Schwarzkopf, Wood, <https://www.linkedin.com/in/schwarzkopf-albert-03b7415/>
- Clark Ellis, Continuum, <https://www.linkedin.com/in/clarkellis/>
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- Jeff Sample, Join, <https://www.linkedin.com/in/ironmanofit/>
- John Strickland, Collaborative Flow, <https://www.linkedin.com/in/j-strickland/>
- Neelanjana Sen, HGA Architects, <https://www.linkedin.com/in/neelanjanasen/>
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- Yash Lalwani, DPR, <https://www.linkedin.com/in/yashl/>