



Serving more than handwashing

Bringing Opal to the food industry

Adv. Behavioral Design | Fall 2021

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Pain Points



Lack of
motivation



Continued
use



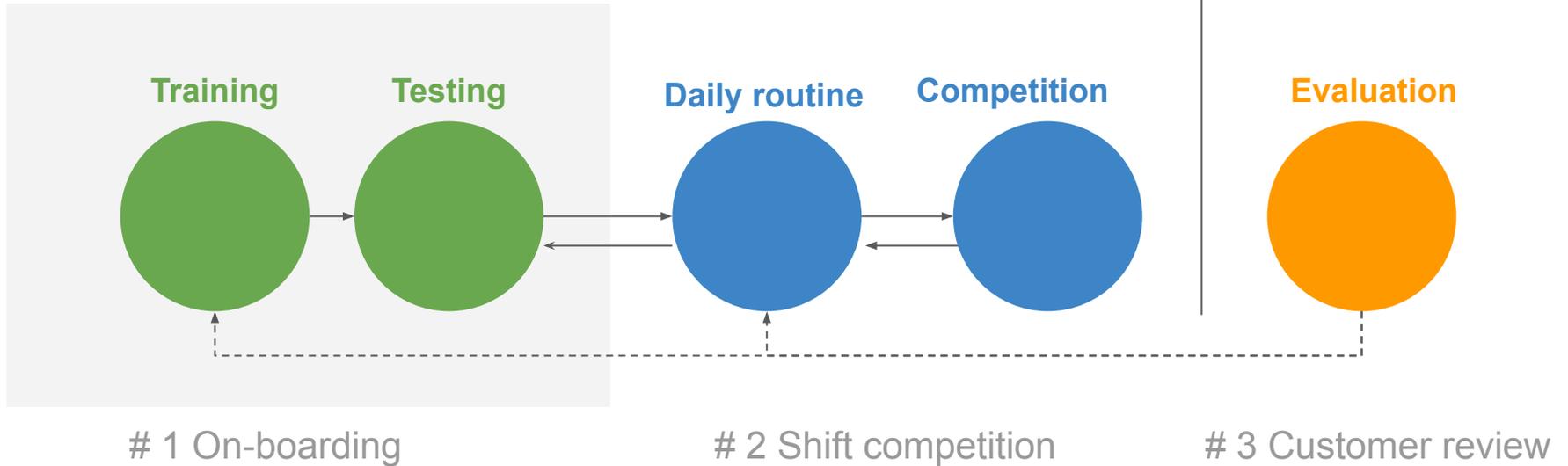
Social
Responsibility

The new process of enforcing hand-washing behavior

For new hires

For employees

For managers and customers



STAGE

Education

Daily use Engagement

Evaluation/ Benefit

EMPLOYEES

CHOICE POSTURE

"No real training for hand-washing but... they emphasize it initially... no training really required because **it's easy to wash your hands**. And everyone does it, it becomes such a part of your routine that **it's very quickly done**. They made me do some online course... that was nonsense... didn't learn anything.

CHOICE INFRASTRUCTURE

Bigger kitchen:
"Good infusion of money, good space. People never yelled, even if tensions flared. Exactly 8 hour shifts; were allowed 15 min break for every 4 hours: rarely happened though. Shifts were flexible to my needs.

Smaller kitchen:
"Rush hour's overwhelming. Shifts were 8 hours but they were understaffed so overtime was common (you did get paid extra: time and a half). Like most kitchens, they would tell you when you can work based on the team.

CHOICE POSTURE

"There's no enforcement really. Kitchen mentality is very much like **you are responsible for your station...** it's hierarchical only in terms of the people above you know more than you, in terms of experience.

CHOICE ARCHITECTURE

"They had someone who'd been in that position for a long time teach me... It's tough because you only have your trainer with you for like 2 weeks, then after that you have to do it on your own.



"Shifts are often the same (pretty consistent unless someone leaves or someone is missing) so you have **the opportunity to build rapport**.



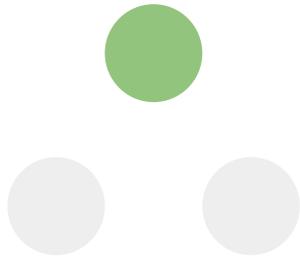
Freelance creative & chef

Vancouver, Canada

Worked on the line at Cactus Club (chain) and, briefly, at a casual dining restaurant.

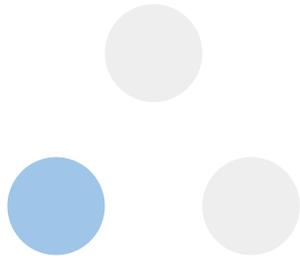
CHOICE INFRASTRUCTURE

"There's this thing called **pre-shift**, where, if there's been complaints by customers or if the executive chef has noticed... (you get reminded to wash your hands). Doesn't happen always, happens occasionally, maybe once a week, twice a week...



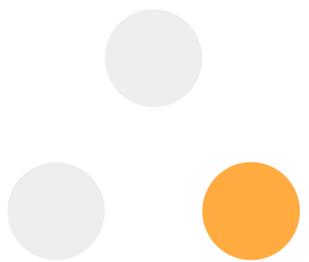
CHOICE POSTURE

Calls it easy & quick but lacks awareness about efficacy. There's also a strong sense of individual responsibility in the kitchen.



CHOICE ARCHITECTURE

The buddy system, which finds application in scuba diving & other safety-sensitive activities, could serve as an analogue.



CHOICE INFRASTRUCTURE

There is a pre-existing shift system in most kitchens. This is a crucial operating mechanism which we have to adapt to.

3-stage flowmap

STAGE	Education	Daily use Engagement	Evaluation/ Benefit
RESTAURANT STRATEGY/ DATA	<ul style="list-style-type: none"> Test and certify the new hires behavioral make sure they will do things right. Kick-off the buddy system & ignite shift team culture. Create data points to track and validate each employee's compliance. 	<ul style="list-style-type: none"> Track shift compliance hand-wash behavioral data. Provide anchors to motivate employees. Device data informs manager via dashboard prompts about supply levels and infrastructure preparedness. Create team culture and ownership amongst the shifts. 	<ul style="list-style-type: none"> Data will use to assess experiment to improve team hand-washing compliance. Evaluate and understand the relationship between tips, revenue and employee behaviors to better improve. Data will be proof shown by manager to investors, insurance agencies.
BEHAVIORAL CHOICE POSTURE	(employee) Understand how to watch hand correctly and the importance of commit right behavior all the time. Opportunity to discuss hand-washing.	Enjoyable experience, engaging hand-washing (magic moment) + sense of competition (employee) + provide reference/ reminder for hand-washing technique.	Give sense of completion achievement and build trust between restaurant and customers Keep track and prepare for iteration
EMPLOYEES	<p>For New hires</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;">training screen</div> --> <div style="border: 1px solid black; padding: 5px; display: inline-block;">test screen</div>	<p>For All Employees</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;">daily use screen</div>	
CUSTOMERS			<p>For Customers</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;">hand-wash screen</div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 20px;">customer review app</div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 20px;">cover screen</div> <div style="border: 1px dashed black; padding: 5px; display: inline-block; margin-left: 20px;">survey screen</div>
BACKSTAGE		<p>For Manager</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;">result dashboard</div>	
PROGRAM	<p><i>On-boarding coach event</i></p> <p><i>Boddy program</i></p>	<p><i>Shift competition program</i></p> <p><i>Daily incentive reward system</i></p>	<p><i>Survey + Tips summary</i></p> <p><i>Pre- shift meeting</i></p>

test result/ certification

behavior data

hand-wash rate

hand-wash rate

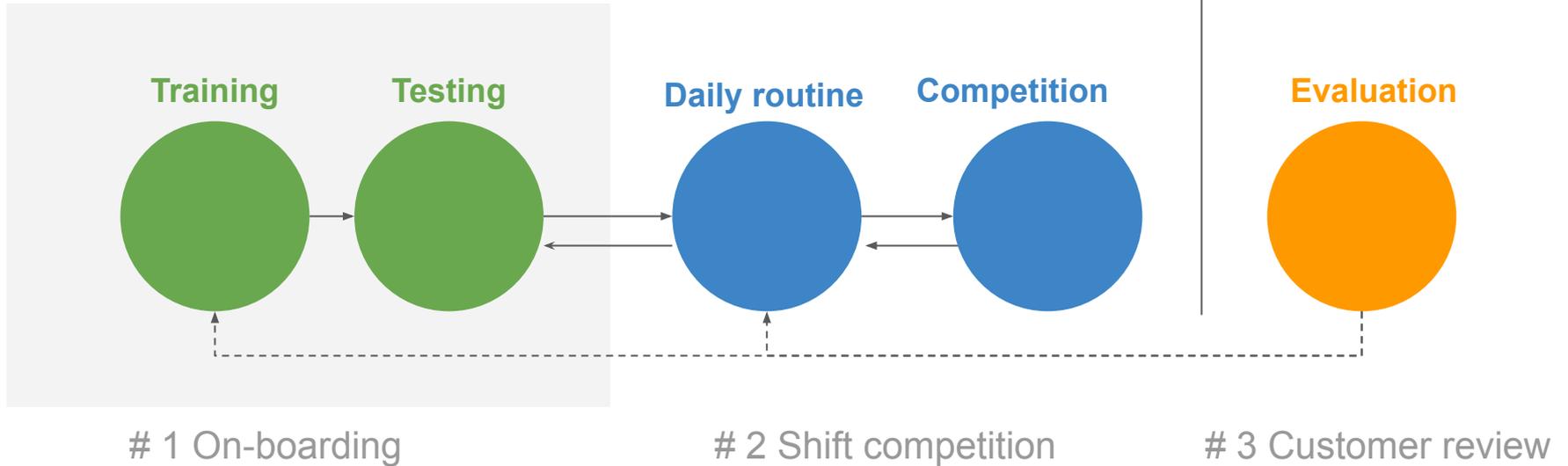
survey + tips summary

The new process of enforcing hand-washing behavior

For new hires

For employees

For managers and customers





#1 Onboarding

James was just hired by the restaurant. Today is the first day to the job.



Objectives:

For employees:

Reduce the uncertainty of hand-wash process.

Build the peer support buddy system to new hires.

Understand the expectations.

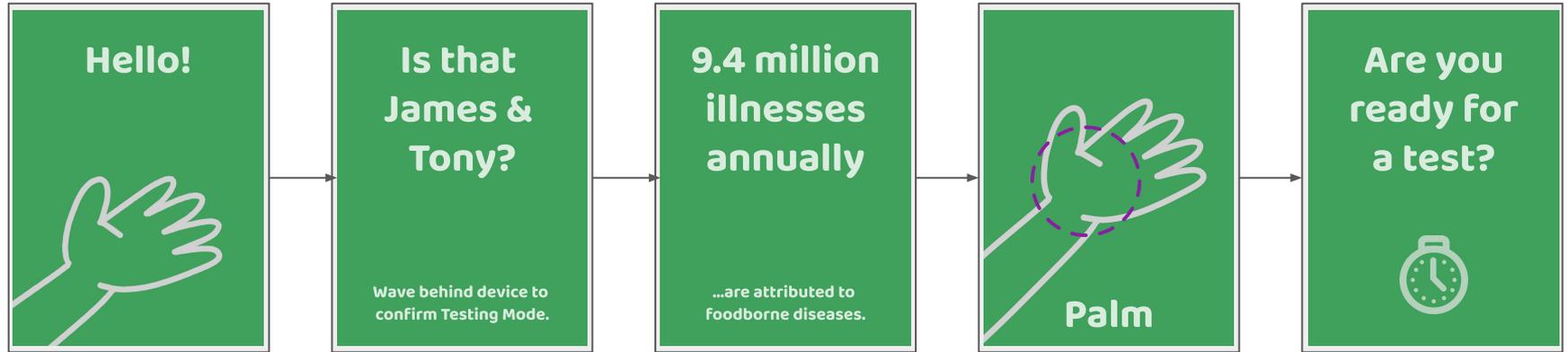
Improve the experience of mandatory behavior into a playful and more engaged one.

For managers:

Develop easier management for onboarding and training process

#1 Onboarding - Training

Screens



Device is set or scheduled to Testing Mode.

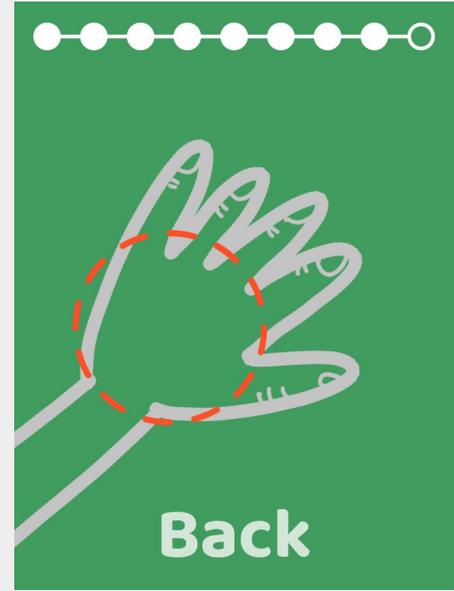
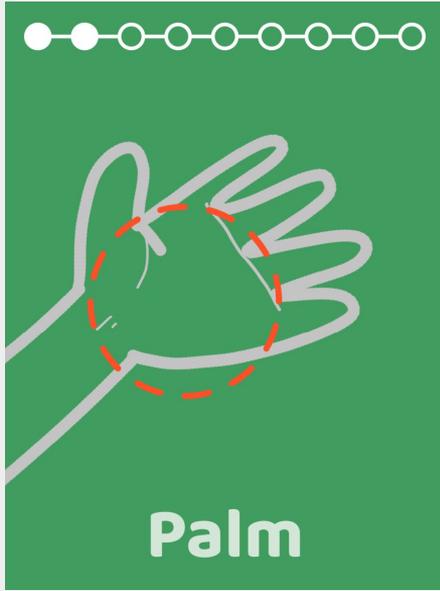
Confirming the buddy pair being tested: gesture.

Making the consequences of poor hand-washing real through statistics as well as real-life anecdotes.

Instructions*
Examples shown on the following page

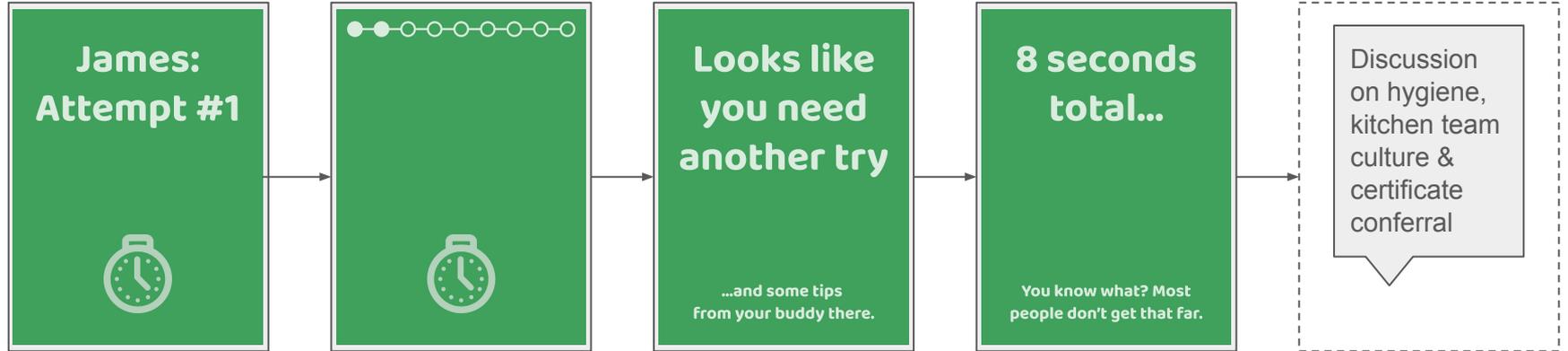
Heads-up.

Instructions that are simple & easy to read!



#1 Onboarding - Testing

Screens



Starting the test.

Timing hinted from the progress bar.

Test results! This is a good opportunity to drive home how easy it is to wish hands improperly.

Showing time spent to anchor self-assessment.

Impact

- For employees, provide a peer support system through buddy. Inspire interest in better hand-washing & give permission to ask questions about it. Certification boosts confidence.
- For managers, improve compliance & create data points to track it.

Evidence:

Simple steps to increase salience improve Hand Hygiene Compliance.
[P.G. Hansen et al](#)

The intention–behavior gap can be covered by introducing prompts & reminders.
[M. Hallsworth](#)

Presence of another person (and by extension, presumably, knowledge of measurement) increases hand-washing rates.
[Hawthorne Effect]
[R. Anger et al](#)

#2 Shift competition

James passed the exam and got the certificate.
Today is the 2nd week to the job.



Objectives:

For employees:

Remind the correct process

Build the confidence of self-identity.

Develop the sense of cohort and community

Frame the hand-wash behaviour into a competition

For managers:

Provide data points for daily operation

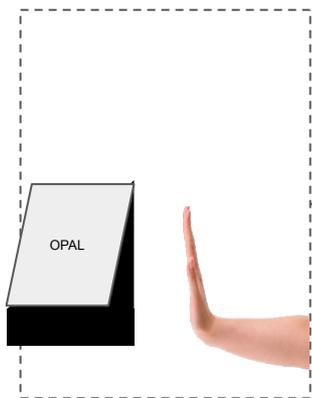
Monitor supplies

#2 Shift competition

Screens

Incentive System**

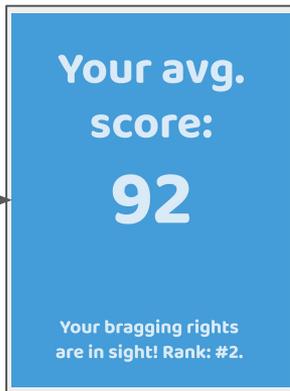
- Music selection
- Extra shift breaks
- Clean badge



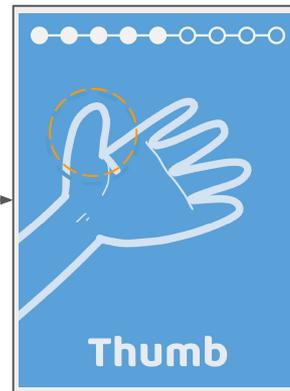
Employee shows Shift Mode gesture.



Each Shift Team gets to select a name & a crest to welcome them.



The shift's average score acts as an anchor for the employee, motivating them to help their mates.



Instructions*



Hand-washing score allows you to compare with the team's average.

Impact

- For employees, foster team culture + stress-busting activity. Provide data points to bring about self-awareness.
- For managers, improve employee wellness & hygiene compliance. Provide data for investors & other key stakeholders.

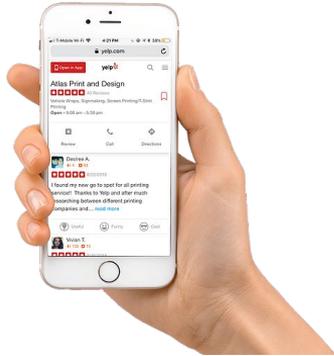
Evidence:

[Social norms and status are at play, more so because professional cred is at stake. No one will want to be the weakest link: accountability] Messages expressing disgust are effective with male hand-washers.
R. Anger et al

Once the value of the anchor is set, subsequent arguments, estimates, etc. made by an individual may change from what they would have otherwise been without the anchor.
D. Kahneman & A. Tversky

#3 Customer review

Shirley needs to find a new restaurant for her family.
She opened yelp to see if anything looks good.



AA clean rate is 4.8.

Reviews claims that AA has clean space and amazing food and service.



Objectives:

For customers:

Add credibility of cleanness level to the customers

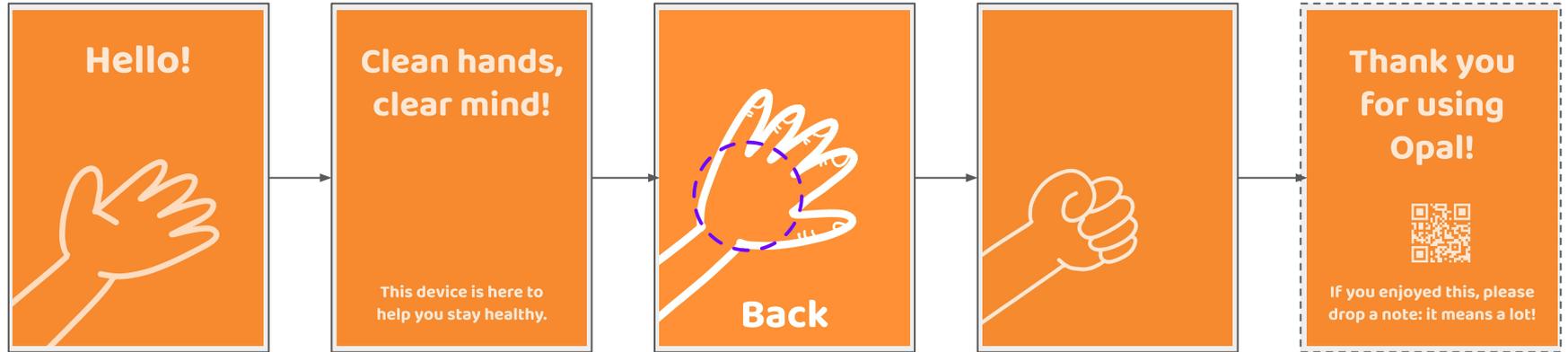
Evaluate the performance of the restaurant easily

For managers:

Provide data points based on customer feedbacks to set up incentives policy and adjust training and daily process

#3 Customer review

Screens



Screen lights up when customer walks in.

Basic branding & rotating clean puns to create interest.

Instructions*

Magic Moment to reward the customer while providing closure.

Customer Survey*

Impact

- For customers, build trust, create “aha moment” and provide subtle cues for good hand-washing.
- For managers, create credibility and brand association with cleanliness, as well as an additional data point (survey).

Evidence:

Quantification Bias.

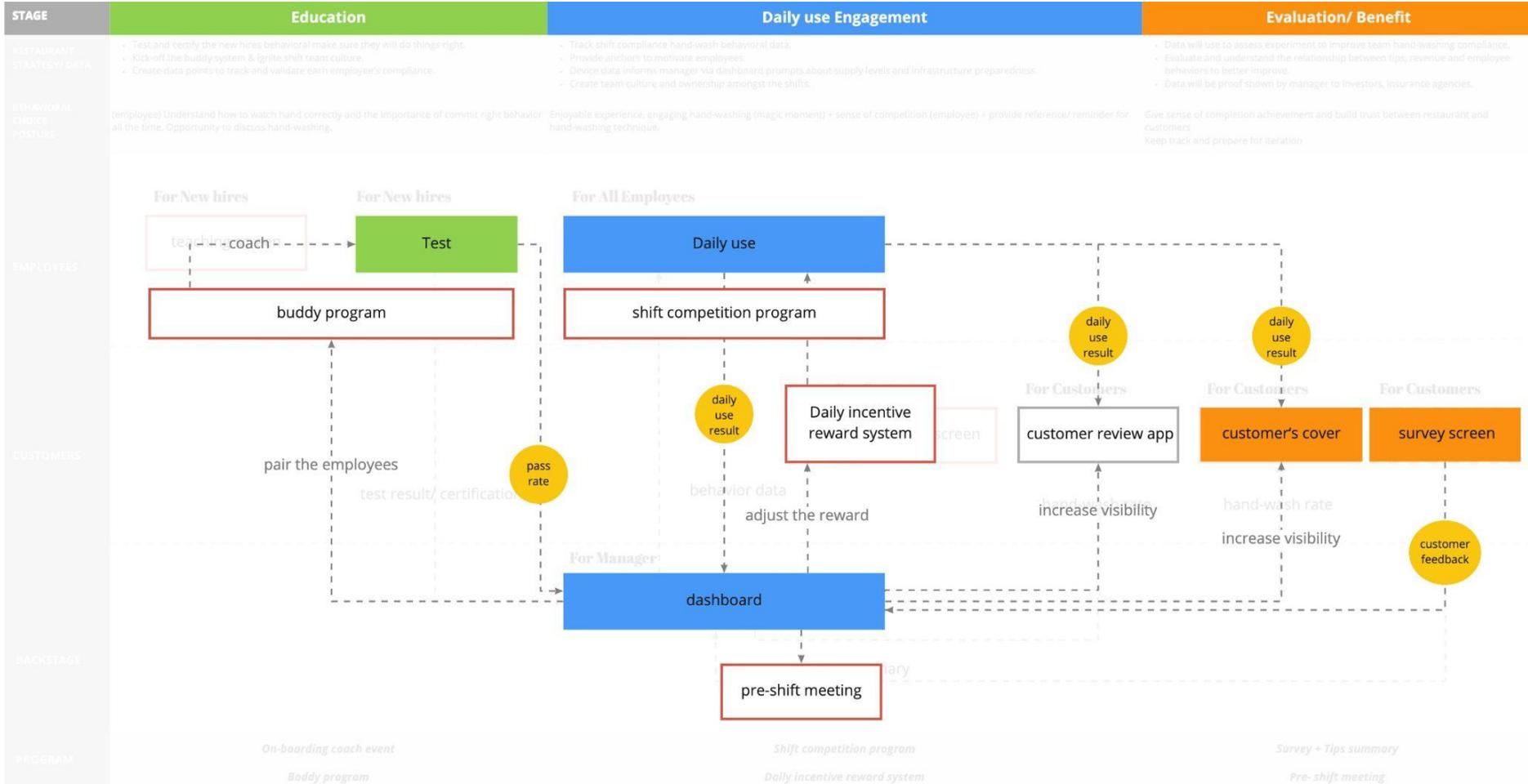
Halo Effect.

Saliency: “The phenomenon that when one's attention is differentially directed to one portion on the environment rather than to others, the information contained in that portion will receive disproportionate weighing in subsequent judgments”

S.E Taylor & S.C Thompson



Data flow diagram



Future plans

Phase 1

6 month
implementation

Hand Wash system can be a fully functional part of a restaurant system within 6 months.

The data collected from this can be shown as proof to investors and insurance agencies.

The same process can be replicated within restaurant chains. Potentially resulting in incentivized competition between restaurant branches and more.

Phase 2

2-3 years
industry standard

After receiving training, employees receive a certification.

Employee certification can be leveraged when applying for future positions within the food industry.

Certification can be applied to entire restaurants. Resulting in a similar system to that of a LEED certification.

Considerations



Every restaurant is different, experimenting with incentives based on staff desires can increase the effectiveness of the system.

Small Restaurants



Concrete and impactful changes to employees daily lives will go a long way.



Removing or adding certain extrinsic motivations, ex. Displaying the restaurants cleanliness score after hand washing.

Large Restaurants



Staying flexible, what makes customers feel safe and know the cleanliness of the establishment. While keeping the needs of employees in mind.

Thank you!

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Appendix

Reference list

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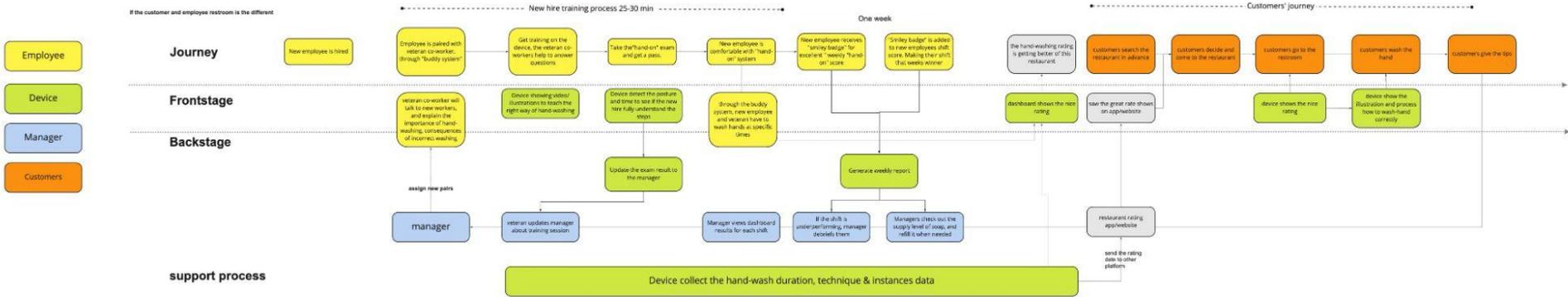
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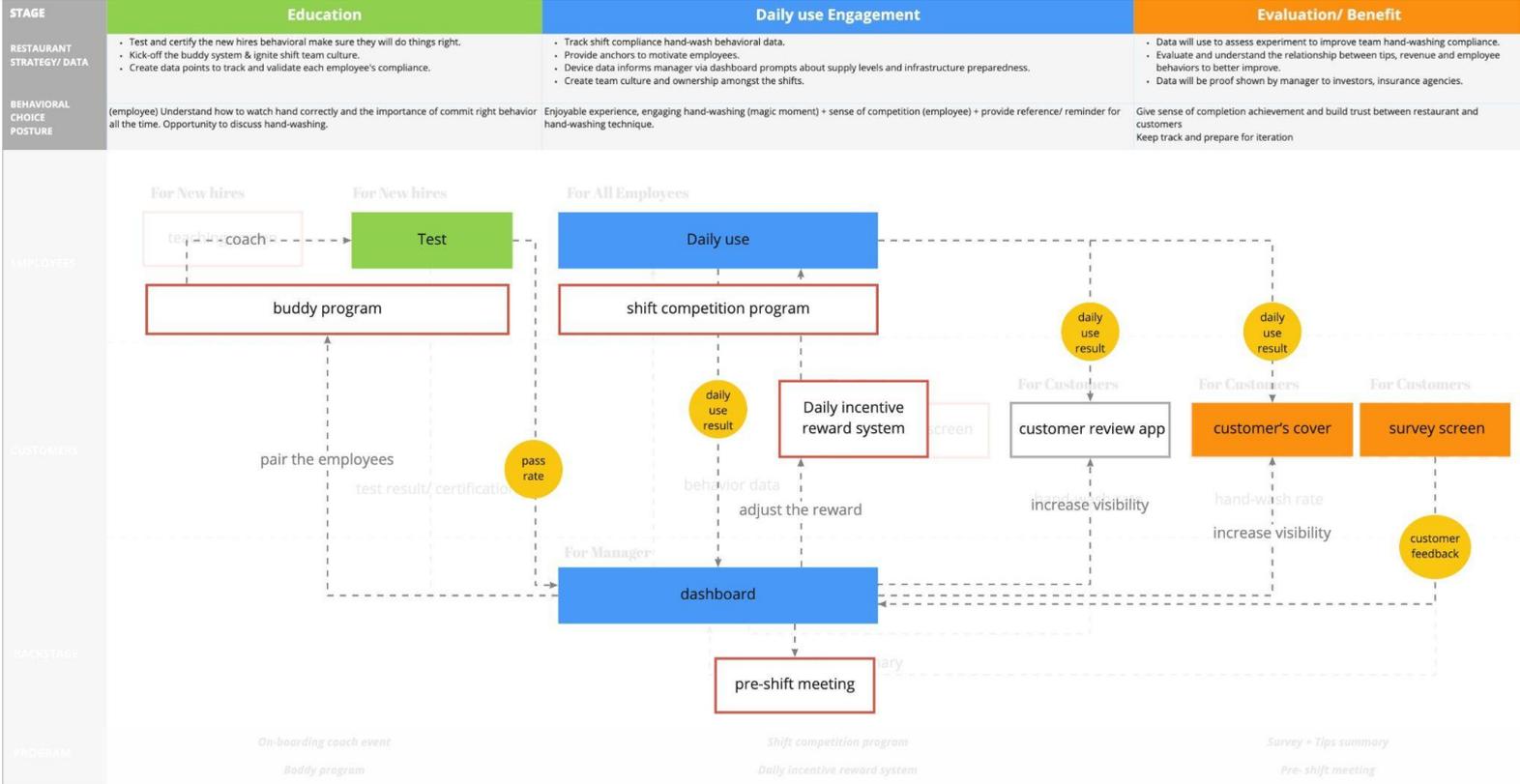
Wei Y-P. The Effect of Food Safety-Related Attributes on Customer Satisfaction of Ready-to-Eat Foods at Hypermarkets. *Sustainability*. 2021; 13(19):10554. <https://doi.org/10.3390/su131910554>



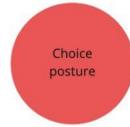
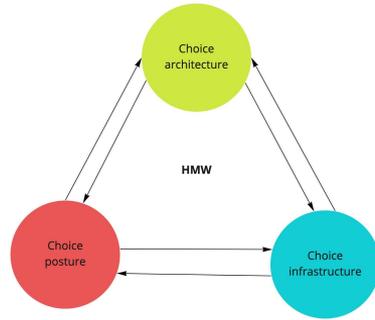
Journey blueprint



Data flow



3C model



employee

manager

customer

Confidence
of hand
washing

Feeling
proud of
their work

Knowing what
is happening -
sense of
certainty

secure,
safety -
sense of
certainty

making the feel of
cleanness more visible
(hand-wash behavioral
ranking system related
with the feeling of
cleanness)

Buddy
system

the
"smiley
badge"

assigning
veteran
employees
with new
employees

customer will keep
seeing the rate of this
restaurant
online/ on their phone
and n the device at
restroom
as a memory reminder

properly using
the device
every time
they use the
restroom

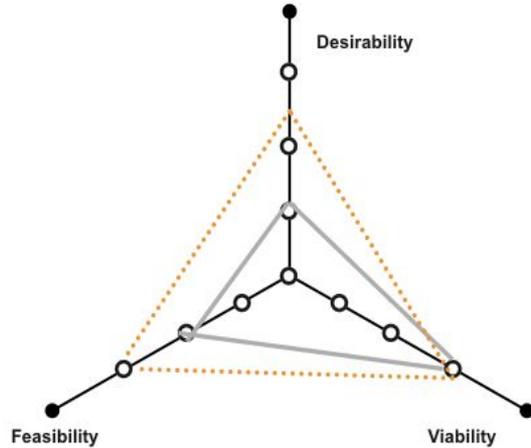
Dashboard

show the
rating on other
restaurant
rating
app/website

Write a
review or
evaluate the
restuarant

Choice Infrastructure

Food industry



	Data			
	For employees	For managers	For customers	
	Will be rewarded based on highest completion rate.	Reports about hand wash behavior and performance relative to other employees	see the hygiene report of the restaurant	
	Competitions based on data collected per bathroom. Rewards can look like food vouchers, PTO etc.	better management with incentives like more bonus, PTO or other formats of reward	feel more safe and build trust	
	Device			
	For employees	For customers		
	Learn the right steps and process	Learn the right steps and process		
	Goal achievement - 95% + will be rewarded	* This restaurant is "clean" Mental safety		

CONCEPT TEMPLATE

What is the title of the idea?
(Naming something can make an idea come to life) "ABC-Wash"

How would you briefly describe it?
(Provide a 1-2 sentence description of the "what")

- Illustrating the process of time to let people know how long it would take
- Set goals that could be tied to incentives and give timely feedback to show achievements

What did you solve for?
(Briefly describe the key behavioral challenges)

- Lack of motivation
- Continued use
- Social responsibility

The idea: Concept "sketch"
(Illustrate or outline the offering, specifically from a behavioral standpoint; use more space as necessary)

The waiting process

ABC Standers
The hand-washing hygiene level of this restaurant

The feedback

The rationale: What leads us to think this might work?
(Indicate how this idea builds on evidence from analogous examples, behavioral theory, or secondary research)

Modeling this idea off an existing industry standard, allows this extension of the device to be successful. This idea ensures customers feel safe and know the cleanliness of the establishment. While simultaneously adding a reward system for employees as an incentive beyond social responsibility to properly use this device. This reward system can look like visual encouragement on device or work related encouragement from employers.

The infrastructure: What data or systems components might we leverage or extend?
(How can this idea be made real and build on existing systems?)

- Viability: make the hand washing data more meaningful and transparent, to increase the hand-wash responsibility of staff
- Desirability : rewards/ small competition to increase the joy of doing right hand wash
- Device visuals

What questions do we have?
(What might get in the way of bringing this to life? What are we most uncertain about?)

- Viability : Can the data from the device be openly shared with customers?
- Feasibility: Will knowing the cleanliness of the employees in such detail be off putting?
 - Could we change the size of screen and add some sound function on the devices?
 - Will managers be willing to adopt the incentive systems?