Serving more than handwashing

Bringing Opal to the food industry

Adv. Behavioral Design | Fall 2021

Aman Bhardwaj  
(Stephanie) Fan Meng  
Victoria Marie Williamson  
Zixuan Zhao  
| abhardwaj2@id.iit.edu  
| fmeng8@id.iit.edu  
| vwilliamson@id.iit.edu  
| zzhao51@id.iit.edu
Contents

1. Pain Points
2. User Insights
3. Overview Flowmap
4. Story
   a. Education
   b. Daily operation
   c. Customer journey
5. Future Plans
6. Considerations
Pain Points

1. Lack of motivation
2. Continued use
3. Social Responsibility
The new process of enforcing hand-washing behavior

For new hires

1. On-boarding
2. Shift competition
3. Customer review

For employees

1. On-boarding
2. Shift competition
3. Customer review

For managers and customers
Freelance creative & chef
Vancouver, Canada
Worked on the line at Cactus Club (chain) and, briefly, at a casual dining restaurant.

"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.

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.

"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.

"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.

"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.
The **buddy system**, which finds application in scuba diving & other safety-sensitive activities, could serve as an analogue.
There is a pre-existing shift system in most kitchens. This is a crucial operating mechanism which we have to adapt to.
The new process of enforcing hand-washing behavior

For new hires

# 1 On-boarding

Training  Testing

# 2 Shift competition

Daily routine  Competition

For employees

For managers and customers

# 3 Customer review

Evaluation
#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

Hello!
- Device is set or scheduled to Testing Mode.

Is that James & Tony?
- Confirming the buddy pair being tested: gesture.

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

Palm

Are you ready for a test?

Instructions*
- Examples shown on the following page

Heads-up.
Instructions that are simple & easy to read!

- Soap
- Palm
- Fingers
- Fingertips
- Thumb
- Wrist
- Back
- Rinse
#1 Onboarding - Testing

**Screens**

James: Attempt #1

Starting the test.

Timing hinted from the progress bar.

Looks like you need another try

...and some tips from your buddy there.

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

8 seconds total...

Showing time spent to anchor self-assessment.

Discussion on hygiene, kitchen team culture & certificate conferral
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. Aunger et al
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

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.

Incentive System**
- Music selection
- Extra shift breaks
- Clean badge

Employee shows Shift Mode gesture.

## Shift: The Mise-en-placers!

Your avg. score: 92

Your bragging rights are in sight! Rank: #2.

This wash score: 84
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. Aunger 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 cleanliness 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

Hello!
Screen lights up when customer walks in.

Clean hands, clear mind!
Basic branding & rotating clean puns to create interest.

Instructions*

Back

Magic Moment to reward the customer while providing closure.

Thank you for using Opal!
Customer Survey*

If you enjoyed this, please drop a note: it means a lot!
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.

Salience: “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

**STAGE**

**Education**
- Test and verify the new handwashing behavior and make sure they do things right.
- Kick off the buddy system & ignite shift team culture.
- Create data points to track and evaluate each employee’s compliance.

**Daily use Engagement**
- Track shift compliance hand-wash behavior data.
- Provide anchors to motivate employees.
- Design data informs managers to dashboard prompts about supply levels and infrastructure preparedness.
- Create team culture and ownership amongst the shifts.

**Evaluation/ Benefit**
- Data will be used to build momentum and share ROI the hand-washing technique.
- Evaluate and understand the relationship between tips, revenue and employee behavior over time.
- Data will be proof shown by managers to investors, insurance agencies.

**EMPLOYEES**

For New hires
- buddy program
- pass rate
- test result/certification
- pair the employees
- behavior data
- adjust the reward
- dashboard
- pre-shift meeting

For New hires
- coach
- test

For All Employees
- Daily Incentive reward system
- daily use result
- customer review app
- customer’s cover
- survey screen
- customer feedback

**CUSTOMERS**

For Customers
- pass rate
- test result/certification
- pair the employees
- behavior data
- adjust the reward
- dashboard
- pre-shift meeting

For Customers
- daily use result
- customer review app
- customer’s cover
- survey screen
- customer feedback

**BACKSTAGE**

On-boarding coach event
- Buddy program
- Daily Incentive reward system
- Survey + Tips summary
- Pre-shift meeting

Program
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.

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.

Phase 1
6 month implementation

Phase 2
2-3 years industry standard

Future plans
Considerations

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

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.

Staying flexible, what makes customers feel safe and know the cleanliness of the establishment. While keeping the needs of employees in mind.
Thank you!
Appendix
Reference list


Journey blueprint
3C model

- Choice posture
  - Confidence of hand washing
  - Feeling proud of their work
  - Knowing what is happening - sense of certainty
- Choice architecture
  - Buddy system
  - “smiley badge”
  - Assigning veteran employees with new employees
- Choice infrastructure
  - Properly using the device every time they use the restroom

Employee
Manager
Customer

Secure, safety - sense of certainty
Making the feel of characteristics more visible (hand wash, behavioral variation system, related with the feeling of cleanliness)
Customer will keep seeing the rate of this restaurant online on their phone and in the device at restroom as a memory reminder
Show the rating on other restaurant rating app/website
Write a review or evaluate the restaurant

Dashboard
Choice Infrastructure

Food industry

What is the title of the idea? (Formally describe the idea in a few sentences)

"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 achievement

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

- Lack of motivation
- Continued use
- Social responsibility

The idea: Concept "sketch" (Include mock-ups or images showing how the idea might work. Specifically from a behavioral standpoint. Use more space as necessary)

- Ingredients: the device (specifically from a behavioral standpoint)
- The infrastructure: What data or systems components might we leverage or extend? (Include how this idea builds on evidence from analogous examples, behavioral theory, or secondary research)
- The rationale: What leads us to think this might work? (Include how this idea builds on evidence from analogous examples, behavioral theory, or secondary research)
- The feasibility: How do we make this idea work? (Include how this idea builds on evidence from analogous examples, behavioral theory, or secondary research)
- The infrastructure: What data or systems components might we leverage or extend? (Include how this idea builds on evidence from analogous examples, behavioral theory, or secondary research)

Modeling this idea of an existing industry standard, allows the 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 the device. This reward system can look like visual encouragement on device or work-related encouragement from employers.