

FOOD SAFETY INSTRUCTIONAL DESIGN PROPOSAL

THE PROBLEM

Food safety significantly impacts the restaurant industry. Negligent food handling practices can result in safety violations, revenue loss, and foodborne disease outbreaks. The Centers for Disease Control and Prevention (CDC) estimates that foodborne illnesses affect 1 in 6 Americans (48 million) annually, leading to 128,000 hospitalizations and 3,000 deaths. Local health authorities inspect food establishments one to three times a year to ensure the food is safe for human consumption. Restaurants that don't follow safe food handling practices receive food code violations that range from mild to critical. Repeated and multiple violations can result in revenue loss or business closure. If a foodborne outbreak occurs, the result could be devastating for the business and customers who contract the disease.

In this concept project, new management takes charge of a restaurant chain grappling with food safety issues. The management aims to implement updated safety training for their 70,000 employees across 800 locations throughout the United States. The goal is to reduce food safety violations by 50% by the end of the year by food handling staff following the new safety procedures.

NEEDS ANALYSIS

I interviewed two subject matter experts (SMEs) with a combined 18 years of restaurant industry experience, spanning various roles and establishments. We assessed the actions performed by food handlers during their work, the errors they commit, the reasons behind these mistakes, and potential solutions to fix them.

We used action mapping to organize our thoughts. The results are below and [online](#).

ACTION MAP



PROPOSED SOLUTION

OVERVIEW AND RATIONALE

Our analysis showed that the actions that could have the most impact on our goal of reducing safety violations are:

Action	Reasons employees were not performing an action	Include in eLearning
Employees staying home when they are sick	Cultural/environment	
Staff using the right equipment for the right job	Knowledge/skills Job Aids	X
Employees using gloves correctly	Knowledge/skills Job Aids	X
Employees not touching ready-to-eat food with bare hands	Knowledge Job Aids	X
Staff maintaining cleanliness and personal hygiene which includes proper hand washing.	Knowledge/skills Job Aids	X
Employees using the correct procedures and chemicals for cleaning	Job Aids	
Storage of refrigerated items correctly	Knowledge/skills Job Aids	X

Our findings highlighted that some issues, driven by culture or external factors, could not be addressed solely through training. For instance, employees often worked when sick due to financial constraints or cultural influences.

However, training could improve other problems, such as not knowing when to use gloves or not using the correct equipment for the job. Managers were aware of safety procedures but struggled to enforce

them due to time constraints and competing priorities. New employees received limited training, and seasoned staff tended to forget protocols.

In several cases, job aids could supplement or substitute for training. Some locations had safety resources, but the restaurant kept them in the office or a training manual instead of at the workstations where employees needed them.

Although we did not identify correct food storage in our original action mapping session, our follow-up conversations suggested that proper storage of refrigerated food was critical for food safety.

I propose a training solution that involves scenario-based safety training delivered in an e-learning format for new employees and job aids at workstations. I also suggest the development of an app containing micro-learning safety scenarios. Managers could use this app every month to reinforce employee safety training and address emerging food safety issues.

Overall, a hybrid learning experience involving e-learning for new employees, an app for managers and all employees to use throughout the year, plus job aids will help the restaurant chain reach its goal of decreasing safety violations. Due to time constraints, I propose rolling the solution out in two phases:

Phase I: eLearning for new employees and job aids

Phase II: microlearning app

SOLUTION DETAILS

SAFETY E-LEARNING EXPERIENCE FOR NEW EMPLOYEES

The new employee safety training will be a web-based eLearning experience that staff could take on a work or personal computer. Management can roll out this training to staff across all locations simultaneously.

It could be part of onboarding for new food-handling staff or given to staff a few weeks after their initial training.

The learning experience will be story-driven based on real-life scenarios that food handlers face on the job over a day. Learners will face different situations and must decide what they would do from a list of choices. Learners feel the consequences of their decisions, leading to additional scenarios. Employees can go back and select different options to correct a wrong decision. Learners can access additional resources if they need help.

JOB AIDS

Job Aid	Responsible for Deliverable
Glove usage infographic poster at workstations	Instructional Designer
Equipment usage and food prep SOPs at workstations	Company
Washing hands infographic poster by handwashing station	Instructional Designer
No bare hands with ready-to-eat food posters at several locations	Instructional Designer
Cleaning SOPs binder by chemical storage	Company
Organization and storage of refrigerated food infographic in food storage room	Instructional designer

MICROLEARNING SAFETY APP

The phone-based app will include built-in micro-learning safety scenarios and fields to create customized eLearning. Gamification elements such as sounds, characters, and points will make the training more game-like.

Restaurant managers could use this app every month to reinforce employee safety training and address emerging food safety issues. Managers could review answers at staff meetings, and the team could discuss concerns and ideas. Managers could also encourage employees to suggest real-world solutions to problems or submit safety scenarios for other employees to solve, encouraging participation and buy-in.

Upper management could provide incentives based on points earned for correct answers in the app. Employees could exchange points for rewards, and the company could recognize managers with top-scoring teams.

NEXT STEPS

1. Develop a storyboard of the scenarios for the new employee safety eLearning.
2. Develop an interactive prototype of the new employee safety eLearning experience using Articulate Storyline software as well as Adobe Creative Cloud.
3. Develop job aids.
4. Get feedback on the prototype and job aids.