

Conrad Choiniere, PhD

FDA Director of the Office of Analytics & Outreach at CFSAN

conrad.choiniere@fda.hhs.gov

Lone Jespersen, PhD

Principle at Cultivate SA

lone@cultivatefoodsafety.com

Vanessa Coffman, PhD

Director of the Alliance to Stop Foodborne Illness

vcoffman@stopfoodborneillness.org

M. Eliese Ronke, MS

Manager of the Alliance to Stop Foodborne Illness

eronke@stopfoodborneillness.org

In Brief

Effective food safety culture learning programs, whether for training or education, require clear objectives for desired behaviors. Including leaders and workers in the development of learning programs increases buy-in and ensures content is relevant and applicable to learners. In addition, involving employees in the planning process will help identify the needs of different cultures, education levels, languages, and learning styles within the workforce. Learning programs should be adapted to address these needs. Engagement with concepts should extend beyond the classroom setting. Flyers, micro lessons, and other organizational communications can act as reminders and increase overall learning retention. The use of icons and images in these touchpoints builds visual connections between training and daily tasks. Learning programs are one piece of a comprehensive organization-wide approach to food safety and food safety culture. In conjunction with goal and expectation setting, communication, and evaluation, education can contribute to stronger, more positive food safety culture.

Key Learnings



Learning programs need to have clear, role-specific objectives.



Involving learners in the planning and execution of programs can increase buy-in and ensure that their needs are addressed.



Learning plans should be adaptable to the cultural norms, literacy levels, languages, and learning styles of workers.



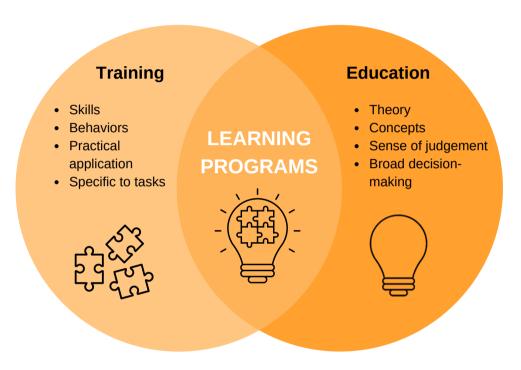
Personal connections and stories can help learners understand the "why" behind food safety concepts.



Engaging with concepts beyond the classroom is important for increasing retention and reinforcing learning.

Learning Programs: Education vs. Training

Learning programs encompass multiple categories including *training* and *education*. While these terms are sometimes used interchangeably, they are different. *Training* is the imparting of skills or specific behaviors, usually at a practical level, while *education* is the teaching of theory and concepts to help learners develop a sense of judgment. Employees need both to perform food safety tasks correctly and understand the purpose and importance of those tasks. The recommendations below apply to any learning program, both training and education.



Link Learning Objectives to Behaviors

An effective learning program first requires clear, organized objectives. Identify what potential problems in your organization require solutions and prioritize which problem should be addressed in your next learning program. Addressing one need at a time will help maintain clarity and prevent overwhelming learners. Define the behaviors necessary for each role in the organization to prevent or solve your prioritized problem. Desired behaviors will differ by role.

To identify the needs of different roles, consider tools like Bloom's Taxonomy. Bloom's Taxonomy provides a framework for sorting learning objectives into categories. The most basic learning level is "Knowledge," or the ability to recall information, methods, or processes. The most complex learning levels are "Synthesis" and "Evaluation," which involve putting elements of learning together to make judgments.



For example, a senior leader's learning objective may include behaviors which only require knowledge, while a maintenance manager may be expected to synthesize or evaluate to correct potential issues. Building specific and thoughtful objectives will ensure all members of your organization are appropriately prepared to contribute to preventing or solving problems and will clarify next steps in developing your learning program.



Involve Your Learners

Development of a learning program cannot happen in a vacuum. Including learners in the process and collecting feedback regularly will increase buy-in and create more personal programs. For example, Wegmans Food Markets developed a "Hub-and-Spoke" model for training development. They identified a food safety champion in each division who acted as the hub for all stores in that division—the spokes. The champion would then filter feedback between frontline workers at each store and leadership. This resulted in the development of a training "Playbook" with content entirely developed by frontline workers, addressing issues they faced and providing guidance for daily tasks.

In another example of learner involvement, Birchwood Foods, a ground beef manufacturer with a diverse workforce, began their program development by speaking with frontline supervisors weekly to discuss the needs of their workers and how best to meet those needs. Birchwood Foods' workforce includes people with many different cultural backgrounds who speak up to eleven different languages and have varying levels of education and reading comprehension. Frontline supervisors were able to give guidance on what learning systems could best meet the needs of their workers. Using this feedback, Birchwood Foods' learner-driven program was more successful than previous models which had missed these nuances.

In addition to collecting feedback, engage learners on a personal level. Adult learners need a deeper understanding of why they need to learn certain tasks or techniques than young people. Personal stories connecting to the organization's core food safety values can address that need and show the importance of learning about food safety. Global snack producer The Hershey Company approaches the personal side of food safety in their trainings with a combination of techniques. For instance, they begin every allergy training session with the question, "How many of you know someone with a food allergy?" to create immediate connections between the learners and the purpose behind what they are learning. They also employ stories of a Hershey Company employee whose son has a peanut allergy as a representative of why preventing allergen contamination is so important. Incorporating stories, videos, and images of peers in learning materials creates bonds between your learners, the organization's values, and the information you are conveying.

Adapt to Your Learners

Learning programs are not "one size fits all." Your target learners will have specific needs, from the content to the method of delivery. As seen in the Birchwood Foods example, workforces can be extremely diverse. Make no assumptions about learners' literacy, languages, cultural norms, educational background, or learning type. Ask questions, obtain regular feedback, and adapt. Even if the path to your ultimate learning objective seems simple to you, others will require more guidance or touchpoints to reach the goal.

Learning programs are not "one size fits all." Your target learners will have specific needs, from the content to the method of delivery.



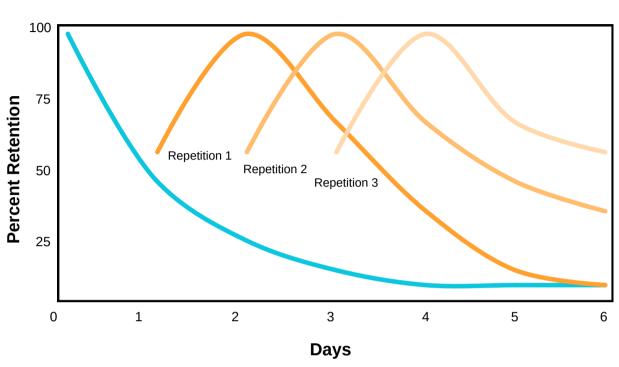
Keep content simple and focused on the application to daily work. Ask yourself, "How will this knowledge translate to specific tasks?" and make the answer clear to your learners. To address their multicultural workforce, Birchwood Foods tailored their program to each specific role at each specific facility. Employees encountered lessons showing the exact tasks they perform, and every lesson connected those behaviors and choices to the food safety values of the organization. This personalized approach made learning simpler to follow and the connections between content and behaviors clear.

Icons, images, and videos also help visual learners and those with different linguistic needs have more immediate visual connections to behaviors. The Hershey Company utilizes icons for allergens and good manufacturing practices (GMPs) to build simple, recognizable reminders of learnings. Birchwood Foods includes images and videos throughout their training modules to better connect with individuals who may have low reading comprehension. Thoughtful visual language can substantially bolster learning programs and diverse learners will benefit from the simplicity and universality.

Carry Learning Beyond the Classroom

Learning does not end at the conclusion of a training or education session. Learners need to encounter the information beyond the classroom, and more touchpoints will translate to more knowledge retention. After one day, people forget between 50-70% of what they learned, resulting in a "forgetting curve," but each additional interaction with the content decreases that loss markedly. Incorporating a lesson's content into your organization's existing communication plan and small nudges, such as posting visual aids like flyers or table tents in break rooms, will provide regular reminders of learnings and reinforce desired behaviors.

THE FORGETTING CURVE



Returning to The Hershey Company's use of icons in their learning programs, the GMP icons appear in multiple high-visibility places to reiterate the information from trainings. Employees encounter a mirror before entering the facility floor, which asks, "Are you ready?" with the GMP icons for personal protective equipment. The quick visual nudge is another touchpoint for learnings while also serving as a reminder and safety checkpoint for workers.

Birchwood Foods increased their learning plan touchpoints by using micro-lessons rather than a single long training session. Employees encountered these "bite-size" lessons multiple times to help with information retention and keep the learning fresh. The Wegmans "Playbook" creates similar opportunities for workers to encounter information numerous times, helping when questions arise, while also reinforcing the answers.

Part of a Greater Whole

Learning programs are a critical step in creating food-safety-conscious employees and a more positive food safety culture in an organization. However, education and training are only part of the continuous cycle of identifying priorities, setting expectations, regular communication, and evaluation. By including learners, adapting to their needs, and carrying lessons into each step of the journey, organizations can address learning objectives, accomplish goals, and work towards a more positive, mature food safety culture.

Acknowledgments

This paper was made possible by the generous sharing of ideas and experiences of individuals from across the food industry.

On January 25, 2023, the Alliance and FDA co-hosted a webinar as part of a series on food safety culture. The webinar greatly informed this paper and included the following panelists:

Megan Kenjora, Senior Manager of Food Safety Culture, The Hershey Company

Steve Aloi II, Director of Food Safety, Wegmans Food Markets, Inc.

Caitlin Hamstra, Corporate Learning and Development Specialist, Birchwood Foods

We are grateful for their contributions and for sharing their stories as we all work towards stronger, more positive food safety culture throughout the food industry.

We also thank the following experts for their contributions to the webinar series and white papers:

Mitzi Baum (STOP)

Victoria Hall (FDA)

Gillian Kelleher (Kelleher Consultants)

Donald Prater (FDA)

Kelly Lombardo (STOP) Roberta Wagner (CBA) Melissa Monlux (Conagra Brands)

Christopher Waldrop (FDA)

reflects the views of the authors and should not be construed to represent FDA's views or policies.

Disclaimer: This document summarizes discussions by participants in a webinar that took place on January 25, 2023, as well as best practices identified by participants related to organizational and food safety culture. This document



Interested in learning more about cultivating a positive food safety culture?

Sign up for the Alliance's Food Safety Culture Toolkit: https://stopfoodborneillness.org/alliance-to-stop-foodborne-illness/#toolkit-register

View the joint FDA / Alliance Food Safety Culture Webinar Series: https://www.youtube.com/@alliancetostopfoodborneillness

