

**An Investigation of Adult Learning and
How It Can be Used to Achieve
Behavioral Change**

March 31, 2023

Introduction

Job opportunities for food handlers have been attractive to individuals for decades. Zippia, Inc., a San Francisco, CA-based company that provides career information, estimates there are approximately 3 million people currently employed as food handlers in the United States. Approximately 57% of these food handlers are women and 44% are men. The average age of individuals employed as food handlers is 24 years old. According to Zippia, Inc. the most common ethnicity of food handlers is White (57.5%), followed by Hispanic or Latino (18.6%), Asian (6.5%), Black or African American (9.6%), American Indian and Alaska Native (0.9%) and unknown (6.9%). (1)

In years past, food handler jobs were commonly held by individuals in their late teens to early twenties. Today, these positions are being increasingly held by older individuals as either a first job or a second job used to supplement other income. Zippia, Inc reports that 47% of food handlers have a High School Diploma, 20% have a Bachelor's degree, 15% possess an Associate Degree, 11% have a Diploma, and 7% possess other degrees. Despite the level of education, literacy has been found to be an impediment for some food handlers.

Food Handler Training

Food handler training is widely used to teach employees about basic food safety and sanitation principles and practices in retail food establishments. The training covers a variety of topics such as ways to prevent foodborne illness, safe food handling practices, proper personal hygiene and handwashing, ways to prevent cross contamination, and proper cleaning and sanitizing of food contact surfaces.

Originally food handler training was primarily delivered by an instructor in a classroom setting. The number of students in these classes varied from a few to as many as 50 or more. In the early days, the presentations associated with food handler training relied on tools like flip charts, overhead transparencies, and slide sets to present concepts related to food safety.

The delivery of food handler training was expanded to include blended learning and eLearning starting in the late 1990s and early 2000s. Computer-based instruction became more popular as computers became more accessible for the masses. Computer-based instruction (CBI) for food handlers offered many benefits for both the employee and their employer. As CBI evolved, graphics, sound, and video became more interactive, while browsers increased connection speeds and gave more people access to internet learning resources. Companies have the opportunity to train their employees anywhere at any time, while online learners can participate in online communities and interactive eLearning courses from anywhere in the world. Flexibility of scheduling, the ability to adapt courses to the food handlers' workplace, and reduced cost of instruction were viewed as key benefits of CBI for the workplace. However, CBI was less effective and popular for food handlers who lacked the equipment or skills needed to access the training. This was more common among older individuals who were less adept at using the computer-based equipment and technology.

Teaching Adult Learners

The age of food handler employees is increasing. This chart below breaks down the ages of food handler employees. Interestingly enough, the average age of food handlers is 20-30 years old, which represents 51% of the population. (1)

40+ years	3%
30-40 years	12%
20-30 years	51%

As the age of food handlers increases, it's important to take into account generational differences in learning style and preferences.

- **Adult Learning Styles**

Adult learning occurs when an adult is pursuing an education, a new skill, or the acquisition of information. (2) The human brain functions differently as we age. Therefore, tailoring training to various adult learning styles will motivate learners and produce better results for the sponsoring organization.

Not all training programs are created equal, and effective training requires learning methodology that utilizes adult learning theory. There are several learning styles that adult learners can use to get the most out of their education and training. (3) Pairing learners with their best learning styles will produce the greatest results. Some common learning styles for adult learners are:

1) KINESTHETIC LEARNERS

These learners learn better by doing something than by reading about it. They prefer a hands-on approach over listening to a lecture when learning how to do something.

2) INTRAPERSONAL LEARNERS

An intrapersonal learner prefers to learn information on their own rather than in a group setting. They learn best by reviewing their notes and re-reading chapters of a book or manual.

3) INTERPERSONAL LEARNERS

These students prefer learning in a group setting. This could be in a classroom or in a small group where they can use social cues and conversation in order to remember what they're being taught.

4) LINGUISTIC LEARNERS

These learners read and retain a good portion of what is in their textbooks and manuals. They take comprehensive notes and learning takes place as they review their notes repeatedly.

5) AUDITORY LEARNERS

Auditory learners learn best by hearing information that is spoken aloud. Lectures, videos, and even recorded books work well for this type of learner.

6) VISUAL LEARNERS

A visual learner needs to see what they are learning about. Visual aids are important for this group as they learn by seeing what they are learning about.

7) LOGICAL LEARNERS

This type of learner needs to break things down into steps or components in order to learn them properly. Rather than looking at the big picture, they prefer breaking things down into their component parts in order to remember the information that they've been taught.

Pairing learners with their preferred learning styles will produce the best results.

- **Important Aspects of Adult Learning Styles**

According to Gini Beqiri it's important to take into account characteristics and learning styles of adults, especially how previous experiences influence their thinking. Some important aspects of adult learning styles identified by Beqiri include:

- Adults prefer having facilitators rather than lecturers, so ensure that your training has problem- solving and reflection.
 - When forming classes, group adults that have similar life experiences and background to create environments in which they are comfortable to discuss and share with one another.
 - Adults benefit from having a peer community in which they can interact and ask questions too.
 - Adult learners may feel uncomfortable if the setting is too formal so try to create a supportive environment and build their confidence by giving them tasks that suit their skills.
 - Cognitive ability declines with age so it may take longer for adult learners to learn.
- (4)

- **Things that Help Adults Learn**

Gini Beqiri identifies four things that help adult learners learn. These are:

- Feedback - Let adult learners know how they are doing so they feel more confident and so that they understand what needs to improve. Reward individuals for doing things properly and provide constructive criticism when they are doing things wrong.
- Motivation - It is important to challenge adult learners so they find the material stimulating but avoid being too challenging because this reduces their motivation.
- Multiple commitments – When teaching adults make room for the various other commitments they have in their lives, such as, their social life, family, work, hobbies, etc.
- Higher expectations - Find out what the learners' expectations are from the beginning and make it clear what your course does - ensure the course objectives are clear right from the start. (4).

- **Barriers to Adult Learning**

Learning techniques for adults are not as important as removing the barriers created by the different learning styles. Adults learn best when they can connect things they don't know with things they already do know. Some things that can pose barriers for adult learning include:

- Lack of time
Adults frequently have less time for education and studying due to jobs, family responsibilities, and other things that compete for their time.
- Self-doubt
Adult learners often doubt whether they can or should undertake education and training. Adults may feel that they are too old to learn.
- Neuroplasticity
A young child's brain is more plastic, helping them take in new information, create new neural pathways, and establish habits through repetition. Though it may be harder for adults to create these new neural pathways and accept new ideas, it is a difficulty that can be overcome with proper adult learning

theories.

- Financial barriers

Adults may have limited resources which make it harder to invest in education and training. Finances shouldn't prevent adult learners from achieving their goals.

- Contradictions

Adult learners may find it difficult to integrate new information. This is especially true if new information contradicts previous education or outdated concepts they learned as a child. (2)

Achieving Behavior Change

According to Brooklin White at the Amos Institute, behavior change can be one of the most challenging things a person can do. This challenge can be even greater for older individuals who are often comfortable doing things a certain way and are hesitant to change. When behavioral change makes an individual feel uncomfortable, they will frequently backslide to previous bad habits and practices they are comfortable with. (5)

White offers the following tips for achieving behavioral change related to personal health, but they can also be modified to work with food handling practices.

- **Start small and create realistic goals:**

Setting realistic goals can help achieve successful behavior change. Change is most likely to occur when an end goal is established, and small steps are created to help the individual reach the end goal.

- **Set your priorities and schedule them in:**

Identify why behavioral change is important. Not all behavioral change is equally important, so it is important to set priorities. After goals and priorities are set, a schedule should be created to identify a target date when behavioral change should be accomplished.

- **Don't lose sight of the end goal:**

Learning correct food safety practices and habits will allow an individual to make

lasting behavior change. The goal is to achieve behavior change regardless of how long it takes.

- **Create a support network:**

A support network can facilitate behavior change. Trainers, supervisors, and fellow workers can be used to ask questions and share stories. Hearing about the successes and failures of others can support behavior changes. (5)

Training for Behavior Change

Brandon Winston provided tips for creating and delivering training that will remove barriers and positively influence adult behavior. These include:

- **Understand your trainee's perspective...and resistance to change**

When developing training it is important to think about the new process from the trainee's point of view. Some good questions a trainer should ask when developing training are:

- Why do I have to do this? How does it benefit me?
- Why should I care?
- What's wrong with the old way of doing things?

Answering these questions may help the trainer see the issue from a different perspective and provide insights into why trainees may resist a new practice or procedure.

Training is commonly used to impart knowledge and persuade trainees to adopt new and better ways to do things. You should expect to hear some workers say, "We've always done it that way". If you suspect employees will object to a new process because it is more complicated than the previous iteration, you can focus on the benefits of the new process for the business and employees. Answering the questions "What's in it for me?" and "What's wrong with the old way of doing things?" will go a long way to remove barriers to learning and behavior change.

- **Disrupt the powerful grip of habits and cues**

Behaviors or processes that are deeply ingrained in the trainee's mind are the most difficult to change. Changing employee habits can be hard. It may be best

to be prepared to do some follow-up training and coaching to ensure that the employees receive the support they need throughout the transition process.

- **Establish structures to encourage success, support behavior change**

Consider building a support plan as part of your training. This plan should be something that supervisors or managers can use with their employees to help them successfully change their behavior. Support programs can be as simple as having the supervisors monitor adherence and discuss it with the employees during regular check-ins, or it can be as sophisticated as a company-wide competition that rewards employees in some way for their adherence to the new program.

- Understand your trainee's perspective...and resistance to change. To develop a successful training program, you need to think about the new process from a participant's point of view. (6)

According to White, it's important to remember that behavior change takes time and that setbacks are inevitable. However, by having a game plan before those setbacks happen, it will be easier to get back on track. An even more important thing to remember is that though behavior change may be difficult, it is possible. (5)

Conclusion

The purpose of this literature review is to gather information about adult learning and how training can be used to achieve behavioral change. Adults learn differently than younger children and training for adults must be designed to meet the specific needs of adult learners. According to the literature, there are certain things that help adult learners learn while others serve as barriers to their learning. These things must be considered when creating training programs for adults.

The information gathered during this project will be used to find more effective ways to deliver food safety training to adult food handlers to impart knowledge and produce behavioral change. The information food handlers must know to do their job correctly is well established. However, adult food handlers possess characteristics that must be considered when creating and conducting food safety training. For best results, the

training for this group should employ techniques that will help them learn and remove barriers created by their different learning styles.

References

1. Zippia, Inc., *Food Handler Demographics and Statistics In The US* webpage. Retrieved March 20, 2023, from <https://www.zippia.com/food-handler-jobs/demographics/#:~:text=After%20extensive%20research%20and%20analysis%2C%20Zippia%27s%20data%20science,and%20Black%20or%20African%20American%20%286.4%25%29.%20More%20items>
2. University of the People (UoPeople), *Everything to Know About Adult Learning Theory*, <https://www.uopeople.edu/blog/what-is-adult-learning-theory/>, 2022
3. Dean College, *7 Adult Learning Styles: Getting the Most Out of Your Continuing Education Experience*, <https://www.dean.edu/news-events/dean-college-blog/story/adult-learning-styles-getting-most-out-continuing-education-experience/>, March 2, 2022
4. Gini Beqiri, *Adult Learning Styles: Helping Adults Learn with the VAK Model*, <https://virtualspeech.com/blog/adult-learning-styles-vak-model>, March 9, 2021
5. Brooklin White, *How to Create a Lasting Behavior Change*, Amos Institute, <https://amosinstitute.com/blog/how-to-create-a-lasting-behavior-change/#:~:text=How%20to%20Create%20a%20Lasting%20Behavior%20Change%201,8%20Plan%20ahead%20of%20time%3A%20...%20More%20items>, retrieved on November 23, 2022.
6. Brandon Winston, *Training for Behavior Change Can Be Harder than It Looks*, <https://www.microassist.com/learning-dispatch/training-for-behavior-change/>, October 10, 2016.

Supplemental References

Mukhalalati, B. A., & Taylor, A. (2019). Adult Learning Theories in Context: A Quick Guide for Healthcare Professional Educators. *Journal of Medical Education and Curricular Development*, 6. <https://doi.org/10.1177/2382120519840332>

Chen, J. C. (2014). Teaching nontraditional adult students: Adult learning theories in practice. *Teaching in Higher Education*, 19(4), 406–418. <http://dx.doi.org/10.1080/13562517.2013.86010>

Kara, M., Erdoğan, F., Kokoç, M., & Cagiltay, K. (2019). Challenges Faced by Adult Learners in Online Distance Education: A Literature Review. *Open Praxis*, 11(1), 5–22. DOI: <http://doi.org/10.5944/openpraxis.11.1.929>

Sierra Training Associates, (2007). *Adult Learning Theories and Practices*, <https://sphweb.bumc.bu.edu/otlt/teachingLibrary/Learning%20Theory/adultlearning.pdf>

Rhodes, C. M. (2018). Culturally Responsive Teaching with Adult Learners: A Review of the Literature. *International Journal of Adult Vocational Education and Technology (IJAVET)*, 9(4), 33-41. <http://doi.org/10.4018/IJAVET.2018100103>