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## **Abstract**

Current and future foodservice managers' perceptions about motivating employees to practice safe food handling were examined as a basis for developing recommendations to improve dietetics and hospitality educators' pedagogy related to employee motivation. Perceptions about teaching and delivery methods also were explored. Four focus groups were conducted in Iowa and Kansas; two with future managers (students) and two with current managers. Five major themes emerged from the qualitative data analysis: communication, customization, operations, training methods/ materials, and human resources. Each motivator is discussed and suggestions are provided for enhancing teaching and learning in foodservice management programs.

## **Keywords**

food safety, foodservice, education, managers, motivation, teaching and training methods

## **Disciplines**

Educational Methods | Food and Beverage Management | Occupational Health and Industrial Hygiene

## **Comments**

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## EDUCATING FUTURE MANAGERS TO MOTIVATE EMPLOYEES TO FOLLOW FOOD SAFETY PRACTICES

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### ABSTRACT

Current and future foodservice managers' perceptions about motivating employees to practice safe food handling were examined as a basis for developing recommendations to improve dietetics and hospitality educators' pedagogy related to employee motivation. Perceptions about teaching and delivery methods also were explored. Four focus groups were conducted in Iowa and Kansas; two with future managers (students) and two with current managers. Five major themes emerged from the qualitative data analysis: communication, customization, operations, training methods/materials, and human resources. Each motivator is discussed and suggestions are provided for enhancing teaching and learning in foodservice management programs.

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### INTRODUCTION

Despite the challenging economic climate in the United States (U.S.), the foodservice industry has remained stable. The National Restaurant Association (NRA) (2010) predicted foodservice industry sales to top \$604.2 billion in more than 960,000 locations across the U.S. in 2011. An estimated 49% of every dollar spent on food by Americans is for food prepared away from home; approximately 130 million people dine in foodservice operations on a typical day (NRA, 2010; U.S. Department of Agriculture, 2010).

The safety of food prepared and served away from home has received much attention from consumers and operators. In 1995, 50% of consumers believed in the ability of the restaurant industry to protect the well-being of consumers (Allen, 2000). In 2007 that number declined to 43% (Food Marketing Institute Research, 2007). Although many states require the person in charge and others to demonstrate knowledge of food safety, 59% of known or reported foodborne illnesses can be traced back to mistakes made in the kitchen of a commercial foodservice operation (Centers for Disease Control and Prevention, 2006). It is estimated that foodborne disease in the U.S. sickens one out of every six Americans and causes 3,000 deaths each year (Scallan, Griffin, Angulo, Tauxe, & Hoekstra, 2011; Scallan, Hoekstra et al., 2011).

The societal costs of foodborne illness in the U.S. are estimated to be

\$1.4 trillion annually (Roberts, 2007). For the foodservice operator, one outbreak in the foodservice operation could result in costly legal fees, medical fees, hospitalization, medication, and increased insurance premiums (Cochran-Yantis et al., 1996). The combination of these direct costs and loss of sales from negative publicity and decline in reputation often force the foodservice to cease operations.

The impact of a foodborne illness is well recognized by industry professionals; foodservice personnel can use well-documented preventative measures to mitigate foodborne illnesses. Food safety is a complex issue. Managers should have expertise in both hard (science-based knowledge such as food safety and sanitation) and soft skills (those less quantifiable) such as leadership and human resources management. Educators of current and future foodservice managers and leaders are challenged with the teaching of these hard and soft skills to students.

The purpose of this qualitative study was to improve pedagogy relating to employee motivation in the foodservice industry by developing recommendations for hospitality and dietetic educators to utilize in the classroom. Recommendations were based on three specific objectives: 1) determine challenges managers have in motivating employees to follow and utilize basic food safety practices, 2) determine what would make managers more effective in their roles, and 3) gauge reactions of managers to various teaching and delivery methods such as DVD, podcast/vodcast, webinars, and other non-lecture methods.

### LITERATURE REVIEW

In 1998, the Food and Drug Administration (Food and Drug Administration [FDA], 2000) conducted an observational study to explore foodborne illness risk factors in a multitude of settings, including hospitals, nursing homes, elementary schools, retail operations, and full- and quick-service restaurants. The restaurant industry had the lowest overall compliance scores compared to identified standards, with the full-service industry scoring 13% lower than any other segment of the foodservice industry. In 2003 and 2008, the FDA (2004, 2009) conducted follow-up studies and still, the restaurant industry continued to score lower than almost all other segments of the foodservice industry. Both reports identified risk factors for foodborne illness that needed priority attention in both quick- and full-service restaurants. These included improper holding time and temperature, poor personal hygiene, chemical control, protecting equipment from contamination, and inadequate cooking. Previous research (Bean & Griffin, 1990) identified improper holding temperatures, poor personal hygiene, and cross contamination as the top three factors contributing to foodborne illnesses. More recent research continued to show these as the top three factors (Olsen, MacKinnon, Goulding, Bean, & Slutsker, 2000) while other research

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indicated these practices are still of concern within the foodservice environment (FDA, 2000, 2004, 2009; Pilling et al., 2008; Roberts et al., 2008). These factors are all preventable if employees have the knowledge and motivation to practice food safety behaviors. Because the manager's role has been identified as important in influencing the food safety culture (Arendt & Sneed, 2008), it is important to consider the views of current and future managers when planning intervention and reduction strategies

### ***Food Safety Education and Learning***

The benefits of employee food safety training have been explored in several studies, although results have been inconsistent. Several studies have found that training helps improve overall employee knowledge of food safety (Costello, Gaddis, Tamplin, & Morris, 1997; Finch & Daniel, 2005; Howes, McEwen, Griffiths, & Harris, 1996; Lynch, Elledge, Griffith, & Boatright, 2005; Roberts et al., 2008) while other studies have found that training is not consistently associated with improved knowledge (Luby, Jones, & Horan, 1993; Pilling et al., 2008; Wright & Feun, 1986).

Studies have found that food safety training is positively associated with improved microbiological food quality (Cohen, Reichel, & Schwartz, 2001), increased food safety inspection scores (Cotterchio, Gunn, Coffill, Tormey, & Barry, 1998; Kneller & Bierma, 1990), and self-reported changes in food safety practices (Clayton, Griffith, Price, & Peters, 2002; McElroy & Cutter, 2004). Brannon, York, Roberts, Shanklin, and Howells (2009) also found that a formal food safety training course helped employees develop an appreciation for the importance of food safety practices and increased awareness of the proper practices that should be followed on the job.

Researchers have begun to investigate the link between knowledge and behavior. Roberts et al. (2008) explored food safety knowledge and behaviors of foodservice employees after employees completed a four-hour training class based on the ServSafe® employee level course. The focus was on the top three factors that contribute to foodborne illness: improper holding temperatures, poor personal hygiene, and cross contamination. Even though overall employee knowledge had improved for the 160 employees sampled, behavioral compliance remained low after the knowledge training, with little significant improvement.

York et al. (2009) expanded this work by using the Theory of Planned Behavior to identify four different treatment groups and their effects on specific food safety behaviors (improper holding temperatures, poor personal hygiene, and cross contamination) in the restaurant setting. The first group received ServSafe® training alone; the second group received a Theory of Planned Behavior intervention that targeted the subjects' perceived control; a third group received both ServSafe® training and the Theory of Planned Behavior intervention; and the fourth group was a control and received no intervention. Results indicated that the training only group and the Theory of Planned Behavior intervention only group were similar in compliance with identified food safety standards. However, those receiving both training and the intervention had the greatest compliance rates of all groups.

Chapman, Eversley, Fillion, MacLaurin, and Powell (2010) observed the influence of a food safety information sheet (labeled as an infosheet) on practices within the foodservice environment. Each infosheet posted was designed to be applicable for the study group and focused on a particular food safety practice. A new sheet was posted each week for seven weeks total. Results showed that the infosheets had a positive impact on the behaviors of the food handlers in the study. While the infosheets had a positive impact on

behaviors, the impact was lessened during busy periods of production and service. The study did not take into account if the employees had any prior food safety training.

### ***Supervisors/Managers***

Arendt and Sneed (2008) approached food safety practice compliance as a supervisory function. The researchers posited that because traditional training had been shown ineffective at motivating employees to change behavior, approaching training at a supervisory level through employee motivation may be more effective. The researchers indicated that supervisors are vitally important in assuring that employees are following recommended food safety practices. From a practical standpoint, when one considers that 12.7 million employees are employed in the restaurant industry (NRA, 2009), and only a fraction of those employees have received food safety training, supervisors are key to encouraging and motivating employees to follow proper practices.

A recent trend in food safety research has focused on the connection between knowledge and behavior (Brannon et al., 2009; Pilling et al., 2008; Roberts et al., 2008; York et al., 2009). However, there is a paucity of data relating to how managers can strengthen the connection between knowledge and behavior and motivate their employees to more closely follow recommended food safety practices.

### ***Using Motivation Theory***

Expectancy theory was first discussed by Vroom (1964) as a motivation theory to explain the behaviors or choices an individual makes. The theory states that individuals will behave in a manner that maximizes positive outcomes, such as rewards, and minimizes negative outcomes, such as punishments. The theory proposes that employees within the work context will be motivated when they believe that increased effort on their part will yield improved job performance; that improved job performance will lead to rewards for the employee within the organization; and that the employee values these expected rewards. Lawler and Porter (1967) would later build upon this work and posited that employee performance and motivation should also consider such factors as knowledge, experience, and abilities. Arendt and Sneed (2008) used this motivation theory as a theoretical underpinning to better understand employees' safe food handling behavioral intentions. They recognized that the manager has direct control over many aspects of motivation. Managers and future managers were the target of study in their research (Arendt & Sneed, 2008).

### **METHOD**

This study used focus group discussions to gather in-depth qualitative data about the research objectives. Focus group methodology should be considered when investigating complex behaviors and motivations (Morgan, 1998). Prior to focus group commencement, individual questionnaires were completed by participants to gather gender, age, length of time worked in foodservice operations, time worked in current operation, if respondents had a computer at home, reasons for using the computer, preferred training method, and learning style preference. To determine preferred training method and learning style preference, respondents were asked to rank their preferences for 12 different methods and which learning style was most useful for them. Focus group questions were developed and evaluated by the research team consisting of six members. As is noted by Krueger (1998a), "The true pilot test is the first focus group with participants" (pg. 57). The research team held a meeting after the first focus group to evaluate acceptability of the questions and based on that discussion, no changes were made.

### Participant Recruitment

Current and future foodservice managers were recruited in two Midwestern college towns in different states. Current managers were recruited via signs in foodservice establishments and phone calls made by the researchers. Future managers, defined as those who would be entering the foodservice industry within one year of the focus group, were recruited in hospitality and dietetic related classes at the two participating universities. One current manager focus group and one future manager focus group were conducted in each participating state, for a total of two current manager focus groups and two future manager focus groups. Participants were informed of the time and location of the focus group discussions during the recruitment process. Both groups were told the researchers were conducting a food safety study and were interested in their opinions. Those who responded to recruitment efforts were reminded the day prior to the focus group via email or phone call. A nominal cash “thank you” gift was offered to compensate for time required to participate in the study.

### Data Collection

Each participant attended one of the four focus group discussions intended for either current or future managers. Each focus group ranged from 5–12 participants. Focus group discussions lasted from 40 to 70 minutes. All focus group discussions were recorded using a digital voice recorder. The Institutional Review Board at both participating universities approved the research protocol prior to any contact with participants.

Upon arrival, participants were thanked for coming, informed of their rights as research subjects, and asked to sign an informed consent form. Participants then completed the demographic questionnaire that also included the questions relating to preferred teaching and delivery methods as well as preferred learning style. Participants were offered a light snack and encouraged to mingle so as to get comfortable speaking around one another. After all participants had arrived, an experienced focus group moderator began the session by welcoming the participants, reviewing the goals of the focus group discussions, and describing the process that would be utilized. Each moderator had experience conducting focus groups and a moderator guide was used to assure that each group received the same instructions and questions. To assure anonymity, each participant was asked to develop an alias to which they would be referred to during the focus group. Each participant wore a name tag identifying his/her alias to all other members of the focus group.

The moderator began asking the discussion questions, which were used to build the foundation of the discussions (Table 1). Because qualitative research is intended to be of an emergent nature, participant responses determined the overall direction of the focus

**Table 1. Key Focus Group Questions**

- Tell me what roles you play related to food safety.
- Could you talk a little about how you feel you do in these roles?
- What would make you more effective in these roles?
- To help you be a better leader and supervisor (related to food safety) what content areas would you like to know more about?
- How would you like to receive this information?
- What are your reactions to non-traditional methods of receiving information and/or training?
  - DVD
  - Computer simulation
  - Podcast/vodcast
  - Webinars
  - Others (i.e., texting, email)

groups. The moderator allowed ample time for participants’ responses. During the focus group, an experienced assistant moderator took field notes utilizing a moderator form adapted from Krueger (1998b). At the conclusion of the focus group, participants were provided \$40 as a “thank you” gift. The moderator and assistant moderator debriefed within 48 hours of each focus group.

### Data Analysis

Recordings of all focus group discussions were transcribed by an experienced transcriptionist. Four researchers experienced in qualitative data analysis coded and themed the transcribed focus group data; three researchers were assigned to each focus group transcript to assure accuracy in hand coding without overburdening any one researcher. Themes were developed independently and then discussed until a consensus between the four researchers was reached. All focus group data were pooled together for analysis.

The demographic questionnaires were entered into SPSS (Version 17.0) for data analysis and descriptive statistics (means and standard deviations) were computed. For training preferences, respondents were asked to rank order twelve different methods; data were analyzed to determine the frequency with which respondents ranked each method within their top three preferred methods. Also, a mean ranking was determined for each method by summing ranking scores and dividing by the number of respondents.

## RESULTS AND DISCUSSION

The show rate for the focus groups was 97% (there were 37 confirmed recruits, yet 36 participants actually attended the sessions). Participants in the study included 15 current managers and 21 future managers. Twenty-six of the 36 participants were male (72%). The majority of participants (69%) ranged in age from 18 to 25 years old with 17% age 40 and older. Almost all (94%) reported presence of a computer at home with a variety of uses such as communication (97%); classes (81%) and bill paying (64%) indicated. Sixty-seven percent had worked in foodservice operations for five years or less and 43% had worked in their current operations for less than one year. Table 2 presents the demographic information of the participants.

### Motivation Effectiveness

Data coding identified five issues that managers deal with when motivating and training employees to follow food safety practices: customization, human resources, training methods/materials, communication, and operations. Students entering the industry will be expected to motivate employees to ensure compliance with identified food safety standards. Therefore, these issues should be addressed in hospitality and dietetics curricula. A model depicting the challenges of food safety motivation identified in the study is presented in Figure 1.

### Customization

Customization is related to the inadequacies of the current one-size-fits-all approach to food safety training, which does little to actually motivate employees to practice proper behaviors. One participant passionately stated that trainers or managers have to consider the generational preferences of employees and others’ comments centered on this as well. One of the participants stated:

*“In our operation we have such a wide range of ages so that’s an issue because the 18- to 25-year-olds would prefer this method where those that are in the 60- to 65-age bracket would have a different comfort zone for learning, so you’ve got to address those kinds of things. And are they, you know, a visual learner? Do they learn by the video or do they need to have hands-on? So,*

**Table 2. Focus Groups Participant Demographics (N=36)**

Category	Frequency (n)	Percent (%)
<b>Gender</b>		
Male	26	72
Female	10	28
<b>Age</b>		
18-21 years	13	36
22-25 years	12	33
26-30 years	4	11
31-50 years	5	14
51-65 years	2	6
<b>Time Worked in Foodservice Operations</b>		
Less than 1 year	6	17
1-<2 years	4	11
2-< 3 years	5	14
3-5 years	9	25
6 years	0	0
7-10 years	7	19
Over 10 years	5	14
<b>Time Worked in Current Operation</b>		
Less than 1 year	16	43
1-<2 years	6	17
2-<3 years	6	17
3-5 years	4	11
6-9 years	2	6
Over 9 years	2	6
<b>Computer at Home<sup>a</sup></b>	34	94
<b>Reasons for Using Computer Away from Work<sup>b</sup></b>		
Communication	35	97
Information source	33	92
Banking	30	83
Classes	29	81
Travel Arrangements	28	78
Bill Paying	23	64

<sup>a</sup> Yes Responses

<sup>b</sup> Percent total is more than 100% as multiple responses could be selected

*you know, it's finding many different methods so that you can address all the different learning styles and hit with some people. It's gotta be something that means something to 'em."*

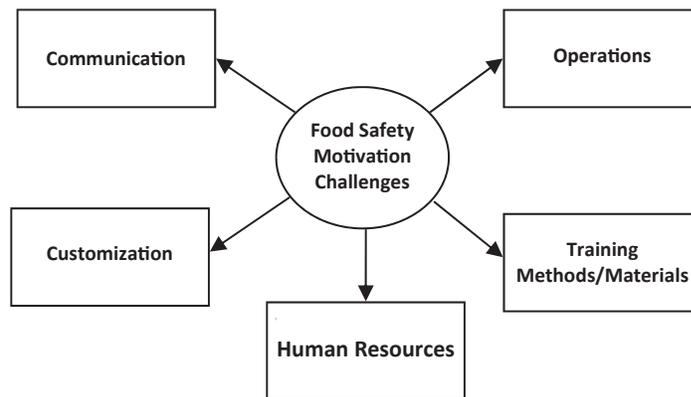
One theme that emerged was the idea that multiple delivery methods are needed for younger generations to accommodate their varied learning styles. One female participant stated:

*"I could see some real problems with that [computer simulation based training] again because of the age variation of your work crew. You guys [referring to the younger managers in the focus group] would all be very comfortable with that. A lot of the employees in my age bracket would be extremely uncomfortable"*

Moreover, the idea surfaced that motivation to follow proper food safety practices might be best done at the operational level, particularly with managers taking the lead. Managers could lead, not only by the training they conduct with employees, but also in modeling proper behavior and tailoring messages to best meet needs of individual employees.

#### Human Resources

This area referenced the challenges associated with human resources management relative to food safety practices. Participants identified staff turnover, lack of motivation among employees, employees' attitudes toward the job, and lack of employees understanding the relationship between knowledge and practice as challenges they commonly face.



**Figure 1. Themes identified from focus group discussions**

One participant discussed how difficult it is for managers to track who has, or who has not, been trained given a large staff size and continual turnover. Organizations with structured training periods often faced the dilemma of proper orientation for new employees. One participant stated:

*"The other issue is the turnover of staff that we have and constantly keeping abreast of who has been trained. We have orientation programs where we talk about food safety, but honestly, 2 years ago I hired 50% of my staff again after our orientation took place in the fall."*

Many participants agreed. One participant indicated that employee food safety training needs to be simplified and streamlined to accommodate their high turnover rate. He stated:

*"Turnover is a big issue for us, and so...I mean, we have high turnover just with student employees. And so I think it needs to happen, you know, efficient training needs to happen earlier."*

Another participant stated:

*"...to do it [food safety training] in like a timely fashion because they don't have 6 months to take a class. I don't have 8 extra hours to pay them to be off the floor. It needs to be short, a 10-minute [training]"*

Another commented that the operation's management usually does a good job at initial training of employees, but in their environment it's "sink or swim" after the initial training due to the high turnover rate.

#### Training Content

Training content centered on the food safety training itself. Participants indicated that food safety training, such as ServSafe®, can be effective, but it does not give managers and employees a good practical application or knowledge of the actual Food Code requirements. Frustration with how requirements are written was also heard by participants who wanted easily accessible and understandable information.

A participant stated:

*"And it is hard to understand those codes. I don't know why they can't be written in a user-friendly[way], you know, they'll be like, in Section A, Paragraph 3, but they don't actually reiterate what Section A, Paragraph 3 says...you think you've learned because you've learned through ServSafe, but ServSafe doesn't necessarily match with state code at all."*

Participants intuitively understood effective teaching by indicating it was important to educate the employees not only on what they are

to do, but why they were required to perform the task in a particular way. Participants identified this as effective teaching because once employees understand why they are supposed to do something; they will be motivated to follow the recommendations while on the job.

### Communication

On-going conversations about food safety practices and methods used to communicate these practices to employees were also identified in the focus groups as issues. Participants indicated more training was needed within the work environment. Most agreed that it would be better to have shorter, focused training sessions than the complete ServSafe® style class. One participant commented how difficult it was to not only keep up with the Food Code herself, but also to ensure that employees were aware of food code changes and updates within the operations' jurisdiction. Managers cannot motivate employees, and employees cannot follow recommended practices, when they are unaware of what those proper practices are, particularly when updates are made every two years, or as noted earlier, when information is not clearly written for lay operators. Communication with staff within the organization and communication between the organization representatives and regulatory agencies were identified as key issues.

### Operations

Many issues were identified that related to the foodservice operation itself. No risk/reward systems were in place to motivate employees to follow food safety practices. One participant indicated that employees want to see "...immediate gratification...immensely. Be it a slap monetary or a slap on the back...just something that gets them involved."

Other issues discussed within the operations category included: managers who indicated that they lacked support from upper-level management; lack of consistency of enforcing food safety policy in the operation; and the need to develop priorities within the work environment. One of the participants concluded that:

*"...being on the same page where we work I kinda feel like the upper management doesn't always like enforce everything and so, me going in and saying, "Don't drink that pop when you're cooking food," that's like nothing because the upper management walks by and gives 'em pop or whatever, you know. To me, I kinda like feel like I'm, it's not really effective because it's not consistent across the board"*

### Teaching and Delivery Method Preferences

Data related to the preferred training methods of focus group participants are presented in Table 3. Participants rank-ordered twelve listed methods of training. The top three preferred methods were activity-based training (61%), observation (39%), and question/answer sessions with an expert (36%). Most participants (83%) also identified experiential as their preferred learning style, followed by visual (58%), and audio (39%).

When discussing training preferences, many identified DVD as boring, difficult to focus on, and difficult to take seriously. Other participants indicated that training information should be communicated via email. Computer simulation was identified as a potential training medium as long as it is consistently updated. Other interactive forms of training also were preferred, such as the GloGerm™ Exercise or an interactive game. Participants of different age categories had different training preferences (Table 4). Participants older than 30 years of age had greater preference for face-to-face training (mean rankings 5.4-5.5) than participants in the age categories less than 30 years (mean ranking 6.2-6.5). Likewise, participants ranked activity-based training differently by age category; those in the 22-30 year old

**Table 3. Training Method and Learning Style Preferences (N=36)**

Category	Frequency (n) <sup>a</sup>	Percent (%) <sup>a</sup>	Mean Ranking <sup>b</sup>
<b>Training Method</b>			
Activity based	22	61	3.2
Observation of activities	14	39	4.9
Question and answers with an expert	13	36	5.5
Group discussions	12	33	4.9
Face to face lecture	11	31	6.1
Videotaped demonstrations	8	22	7.3
Interactive videos or computer games	7	19	6.5
Role plays or skits	5	14	7.2
Video or ICN lecture	4	11	8.2
Dialog with another person	3	8	5.1
Manuals or brochures with information	3	8	8.2
Vodcasts/podcasts	1	3	9.5
<b>Learning Style<sup>c</sup></b>			
Experiential	30	83	
Visual	21	58	
Audio	14	39	

<sup>a</sup> Respondents were asked to rank order training methods from 1-12 (1=most preferred and 12 = least preferred). Frequency and percent indicates the number and percent of participants who ranked the training method as either 1,2 or 3.

<sup>b</sup> Mean ranking was calculated by summing all rankings (1-12) for an individual training method and dividing the sum by number of participants responding.

<sup>c</sup> Percent total is more than 100% as multiple responses could be selected.

**Table 4. Training Preferences of Current and Future Managers by Age Category (N=36)**

Training Method	Mean Ranking <sup>a</sup>				
	18-21 years	22-25 years	26-30 years	31-50 years	51-65 years
Vodcasts/Podcasts	9.4	9.8	9.8	8.0	11.5
Video or ICN Lecture	8.0	8.9	9.8	6.0	8.0
Manuals or Brochures	7.6	9.0	8.3	7.6	8.5
Role Plays or Skits	7.0	6.5	8.5	7.2	10.0
Interactive Videos or Computer Games	6.9	5.8	8.3	6.2	5.5
Videotaped Demonstrations	6.8	7.8	10.0	6.4	5.0
Face to Face	6.2	6.5	6.3	5.4	5.5
Question and Answers with an Expert	5.9	5.3	4.3	6.8	3.5
Observation of Activities	5.5	4.9	4.0	4.2	5.5
Dialog with Another Person	5.4	6.2	2.5	4.0	4.0
Group Discussions	5.3	4.9	4.5	5.0	2.5
Activity Based	4.2	2.5	2.0	1.4	8.5

<sup>a</sup> Mean ranking was calculated by summing all rankings (1-12) for an individual training method and dividing the sum by number of participants responding.

age category had higher rankings (mean rankings 2.0-2.5) compared to the youngest and oldest group (with mean rankings of 4.2 and 8.5, respectively). Those in the age category 31-50 years ranked the activity-based method the highest with a mean ranking of 1.4.

This study has implications across the hospitality and dietetics curricula, not only in the realm of food safety, but also in human resources management, foodservice systems management, and hotel operations management. Most of the participants in the study indicated that some type of activity-based training was the most preferred method. The majority of participants (83%) preferred experiential learning to visual and audio learning alone. Participants indicated that the current one-size-fits-all lecture-style approach is ineffective in motivating current and future employees to follow proper food safety practices. Although food safety information can be taught efficiently in this manner, it is not clear if knowledge will equate to practice. In addition, the soft skills needed to become a successful manager in the foodservice industry likely cannot be effectively taught in a lecture-style approach. Deale, O'Halloran, Jacques, & Garger (2010) explored teaching methods in hospitality and tourism and found that most faculty continue to use the lecture method of teaching. They note that with dwindling resources, this is an efficient method, but may not be best for student learning.

The foodservice industry is a labor-intensive industry. The top issues of managers from a variety of fields, not solely hospitality, included dealing with conflict, communicating with employees and motivating employees (Brotheridge & Long, 2007). Roberts et al. (2008) reported that employees had the knowledge necessary to perform certain food safety tasks, yet they failed to utilize this knowledge on the job. This study reinforces past work on the need to improve the connection between knowledge and behavior. Hospitality and dietetic educators need to not only train future managers on the theory and knowledge of the profession, but also on how to train their employees using methods that encourage them to apply knowledge on-the-job. Table

**Table 5. Teaching Strategies to Motivate About Food Safety**

Motivation Strategies	Facilitated Learning Activities
Customization	Interviews with individuals of different age categories to understand differences Preparation of food safety materials targeting unique learning preferences
Human Resources	Role play whereby students "act out" human resources management challenges and reach a solution Case study analysis of unmotivated employees who do not adhere to safe food practices
Training Methods	Student-developed non-traditional food safety training (e.g. Podcasts) Paired student teaching activities where one student teaches another
Communication	Development of formal communication documents such as food safety standard operating procedures specific to the work organization and employee handbooks Preparation and delivery of 5-7 minute food safety content messages
Operations	Student persuasive speeches to garner support from others Structured debates between groups of students on a food safety concern (e.g. glove use)

5 presents suggested learning activities for each of the motivation and training issues identified in this study. Educators and managers alike need to forgo the traditional training that only teaches what to do; rather, training should focus on communicating why it must be done this way and how to communicate this message effectively to various audiences using multiple media. The fundamental knowledge needed to develop and implement these types of training programs must originate in hospitality and dietetic programs.

**CONCLUSIONS AND APPLICATIONS**

This paper has addressed the challenges identified by current and future managers when trying to motivate employees to follow proper food safety practices on the job. Specifically, challenges relating to customization, human resources, training content, communication, and operations were identified in four focus group settings with 36 participants. Participants voiced interest in customized training materials that would be specific to their age or learning style and also voiced frustration with some of the human resource challenges in operations. Training content and teaching emerged as a predominant theme whereby practicality was paramount; participants wanted training that was applicable to their work situation. Communication by supervisors and managers could also serve as a motivator to encourage employees' safe food handling behaviors. What emerged from these focus group discussions was that managers can help motivate employees to follow safe food handling practices. Multiple strategies were identified that can help hospitality and dietetic educators better prepare students, future managers in the industry, to do so. For example, shorter, focused food safety training was preferred when compared to the traditional ServSafe® course. Such training could be customized to the age of the employee and the operation itself and be taught in the actual work environment to make the training more meaningful to the employee.

The reaction of participants to various teaching and delivery methods was also explored. Most participants indicated that activity-based training was preferred, followed by observation. By implementing these strategies in the dietetic and hospitality classroom, faculty can educate students on how to motivate employees. More importantly, educating future managers to motivate employees will have a profound impact once these future managers are able to motivate their own staff to follow proper food safety practices and this will ultimately help to improve the connection between knowledge and behavior.

**Limitations and Future Research**

One major limitation of this study was that due to budgetary constraints, the sample was only drawn from two Midwestern states. Thus, the feelings and thoughts of managers who could be dealing with different populations and cultures in other U.S. locations are not reflected.

Future research should quantitatively explore motivation and pedagogy techniques related to proper food safety practices. Other research also should investigate motivation from the employee's perspective to develop a framework of what motivates them to practice safe food handling behaviors. This information then can be implemented into hospitality and dietetic curricula to ensure future students are able to effectively motivate hourly employees within the industry. Research exploring pedagogy and andragogy related to food safety and motivation is also needed, including preferred methods of learning for all age groups of learners who are currently working in the industry.

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