

Training Needs of School Foodservice Site Managers

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ABSTRACT

The purpose of this study was to examine training needs of school foodservice site managers nationwide. A survey instrument was developed to elicit information regarding the training topics managers considered most important and the delivery formats and modes they preferred. The instrument was mailed to a sample of 1,000 participants drawn at random from a national database of U.S. schools. A total of 339 (34%) of the 1,000 managers completed and returned the survey forms.

Survey results yielded two distinct groups of topics for which respondents expressed a relatively strong need for training. These two areas were employee management and practical skills training. Analysis of survey results also indicated that most respondents preferred training formats that were interactive, hands-on, timely, practical, and demonstrative. Based on the results of this survey, researchers recommend the use of relevant theme-based seminars focused on team building and practical topics that would help site managers run their operations more smoothly and efficiently.

INTRODUCTION

Change is happening quickly in the school foodservice industry (DeMicco, Cetron, & Williams, 2000). Much of this change is due to such factors as improving technology, evolving demographics of workers, new governmental requirements, increasing knowledge about nutrition, the growing need for marketing, and increasing competition. These changes necessitate an ongoing evaluation of the changing knowledge and skills that school foodservice site managers will need in order to perform their work effectively over the next few years, as well as establishing the priority of each of these training needs and the designs and delivery methods that are most desirable in addressing these concerns.

This study builds on earlier research that examined the continuing education needs of foodservice managers. Sneed and White (1993a) conducted a study for the National Food Service Management Institute (NFSMI) that assessed the continuing education needs of school nutrition managers. They developed a list of 124 competency statements based on earlier research, and then further refined the list by observation, interviews, and review by professionals from a range of perspectives and backgrounds.

After dividing this list into two survey questionnaires, Sneed and White mailed each form to a random sample of 600 managers (total of 1,200 managers), with a 42% response rate. The areas covered in their survey included:

- personnel management;
- program accountability;
- financial management and record keeping;

- professional development;
- marketing;
- procurement;
- food production;
- equipment use and care;
- sanitation and safety;
- nutrition and menu planning; and
- food acceptability and service.

Sneed and White reported that the competency statements managers rated highest in importance "related to safety, personal hygiene, sanitation, food temperatures, service of meals, and adherence to federal regulations" (1993a). Those competencies that were rated lowest in importance included nutrition education, using computers to keep financial records, and issues related to the continuing training of their staff.

Sneed and White (1993b) authored a second article based on the same sample, reporting the continuing education needs of managers as reported by these managers. Focusing on 48 job-related areas, they reported that those areas with the highest mean ratings of need for continuing education included "state and federal regulations, laws affecting personnel; health and safety laws, inspection and enforcement; work simplification; employee motivation; transmitting child nutrition mission and values; building professionalism in staff; time management; building teamwork; and employee relations." Sneed and White also had asked managers to rank 10 formats for continuing education, and found the two formats with the highest rankings (state and district workshops or meetings) "are ones that have personal interaction and are in close proximity to participants' homes." The formats with the lowest rankings were teleconferences and audiotapes.

In addition to assessing the continuing education needs of school nutrition managers, from 1995 through 1997, NFSMI developed a series of training needs assessments for a consortium of state Nutrition Education and Training Programs. These studies, which assessed statewide training needs of directors and managers, were conducted by 12 states using survey instruments that were developed by NFSMI and modified by the state agencies. The studies were intended to assess the training needs within individual states, and they were conducted according to the state-determined design. In summarizing results of the 11 state-level studies for which comparable data were available, Sullivan (1998) found that school foodservice managers' perceived training needs included leadership skills, such as motivating employees to provide better customer service, managing to ensure timeliness, and team building with school foodservice employees.

The current study, which was conducted concurrently with a survey of school foodservice directors' professional development needs, updates and extends earlier research by providing a recent national perspective on site managers' training needs, as well as their preferred training formats and delivery modes. To accomplish these goals, the study examined the following research questions:

- What knowledge and skills do school foodservice site managers need in order to perform their work more effectively over the next several years?

- What is the relative priority of each of these training needs?
- What are the preferred training formats for meeting site managers' training needs over the next several years?

METHODOLOGY

Research Questionnaire

The researchers developed a preliminary survey instrument by collecting qualitative data through a series of telephone interviews with 10 school site managers selected at random from lists of site managers working in different states (e.g., Florida, North Dakota, Oregon). No attempt was made to ensure that all regions, as defined by the U.S. Department of Agriculture (USDA), were represented. In these interviews, site managers were asked to comment on the knowledge and skills in which they were most interested, as well as the training formats they preferred. The researchers also reviewed relevant research literature (Sneed and White, 1993a; Sneed and White, 1993b; Sullivan, 1998), including some of these topics in the pilot test version of the survey.

To assess the instrument's content validity, the researchers conducted a focus group interview with five site managers at the American School Food Service Association's Annual National Conference in July 1999. In response to suggestions from these site managers, the instrument underwent minor revisions. The researchers then conducted two pilot-tests of the revised draft instrument. In the first pilot-test, the survey form was sent to a random sample of 100 schools, with the envelopes addressed to "*Food Service Site Manager, XXX School.*" This pilot-test resulted in a relatively low rate of response (approximately 20%).

Based on an assumption that school personnel who routed incoming mail might not have been familiar with the term "site manager," the researchers conducted a second pilot survey by sending the survey to a different set of 100 schools, with the envelopes addressed to "*Principal, XXX School.*" The cover letter for this survey asked the principal to direct the survey form to the site manager or cafeteria manager. This pilot survey resulted in a slightly higher response rate (approximately 24%).

In both pilot surveys, a cover letter to site managers asked them to complete the survey and to comment on the form as a whole and on individual items. The researchers used information they had received from these site managers to make minor revisions in the content and format of the instrument. As a final step in ensuring content validity, the National Food Service Management Institute's (NFSMI) executive director presented the instrument for review by the Food and Nutrition Subcommittee of the Education Information Advisory Committee (EIAC), Council of Chief State School Officers. Final refinements in the content and format of the survey instrument were made in response to EIAC's suggestions.

The final survey instrument included 13 demographic items, 38 training topic items, 11 items addressing preferred training formats, 11 items focusing on preferred delivery modes for training, and 1 item asking respondents to rate the priority they personally assign to their own training (see **Table 1**, **Table 2**, and **Table 3** for more specific information about the included items). Participants were asked to rate their own need (Much needed, Somewhat needed, or Not a

priority) for training in each of the 38 topic items, and their preference (Highly preferred, Preferred, or Not preferred) regarding each training format and training delivery mode.

Table 1. Site managers' (N=339) rating of training topics

| Training Topics | Mean Rating ^a | SD | % Much Needed | Somewhat Needed | % Not a Priority | n |
|---|--------------------------|-----|---------------|-----------------|------------------|-----|
| Team building and motivating foodservice workers | 2.2 | 0.8 | 38 | 40 | 22 | 319 |
| Using fire extinguishers correctly and training employees to use them | 2.1 | 0.8 | 35 | 41 | 24 | 331 |
| Handling food properly (cooling, heating, thawing) | 2.1 | 0.8 | 36 | 38 | 26 | 324 |
| Preparing food efficiently (using fewer steps) | 2.1 | 0.8 | 32 | 42 | 26 | 329 |
| Training employees to use kitchen equipment and utensils safely and properly | 2.1 | 0.8 | 35 | 36 | 29 | 327 |
| Communicating effectively with foodservice workers to reduce conflict | 2.1 | 0.8 | 33 | 40 | 27 | 328 |
| Evaluating on-the-job performance and providing constructive feedback to workers | 2.0 | 0.8 | 33 | 39 | 28 | 325 |
| Enhancing the appearance, taste, and presentation of food | 2.0 | 0.7 | 30 | 45 | 25 | 327 |
| Marketing/promoting the foodservice program | 2.0 | 0.7 | 30 | 45 | 25 | 327 |
| Training employees to use correct sanitation practices (hand washing, using gloves) | 2.0 | 0.8 | 36 | 33 | 31 | 329 |
| Modifying recipes to reduce fat, sugar, and salt | 2.0 | 0.8 | 30 | 43 | 27 | 328 |
| Ensuring quality customer service | 2.0 | 0.8 | 30 | 42 | 28 | 320 |
| Cutting costs (e.g., using leftovers) | 2.0 | 0.8 | 28 | 44 | 28 | 328 |
| Training services in portion sizing | 2.0 | 0.8 | 30 | 39 | 31 | 328 |
| Planning menus to meet USDA meal requirements and customer acceptability | 2.0 | 0.8 | 30 | 35 | 35 | 329 |
| Training employees one-on-one or in small groups | 1.9 | 0.8 | 28 | 38 | 34 | 328 |
| Using computers for ordering supplies, e-mailing forms, etc. | 1.9 | 0.9 | 33 | 26 | 41 | 320 |
| Expanding/standardizing recipes | 1.9 | 0.8 | 27 | 38 | 35 | 326 |
| Teaching nutrition to students | 1.9 | 0.8 | 26 | 39 | 35 | 325 |
| Receiving, storing, rotating, and ordering foods | 1.9 | 0.8 | 28 | 35 | 37 | 324 |
| Applying basic food production techniques | 1.9 | 0.7 | 21 | 47 | 32 | 325 |
| Evaluating new food products | 1.9 | 0.7 | 19 | 50 | 31 | 327 |
| Coordinating the foodservice program (menus, decor) with classroom study themes | 1.9 | 0.8 | 23 | 41 | 36 | 326 |
| Providing more food choices (e.g., salad bars) | 1.9 | 0.8 | 25 | 37 | 39 | 330 |
| Interacting effectively with students in different age groups | 1.8 | 0.7 | 19 | 40 | 41 | 327 |
| Encouraging professional manner and dress by foodservice workers | 1.8 | 0.8 | 19 | 39 | 42 | 327 |
| Training cashiers | 1.8 | 0.8 | 23 | 29 | 47 | 321 |
| Working effectively with school administrators and teachers | 1.8 | 0.8 | 20 | 34 | 45 | 328 |
| Competing effectively with fastfood chains | 1.7 | 0.8 | 23 | 27 | 50 | 323 |
| Dealing with added responsibilities outside the foodservice realm | 1.7 | 0.8 | 17 | 36 | 46 | 321 |
| Instituting school breakfast programs | 1.6 | 0.8 | 17 | 24 | 59 | 323 |
| Recycling; disposing of waste properly | 1.6 | 0.7 | 11 | 33 | 56 | 320 |
| Dealing with employee turnover | 1.5 | 0.8 | 15 | 22 | 62 | 325 |
| Working effectively with vendors and others outside the school | 1.5 | 0.7 | 10 | 29 | 62 | 326 |
| Managing the issue of water safety and analysis | 1.5 | 0.7 | 9 | 28 | 63 | 320 |
| Instituting an after-school snack program | 1.4 | 0.7 | 13 | 16 | 71 | 321 |
| Managing summer feeding programs | 1.4 | 0.6 | 9 | 17 | 74 | 321 |
| Managing vending machines and stadium concessions | 1.2 | 0.6 | 7 | 10 | 82 | 315 |

^aScale: Much Needed=3; Somewhat Needed=2; Not a Priority=1

Table 2. Site managers' (N=339) rating of training formats

| Training Topics | Mean Rating ^a | SD | % Highly Preferred | % Preferred | % Not Preferred | n |
|---|--------------------------|-----|--------------------|-------------|-----------------|-----|
| Seminars that allow interaction with other managers | 2.3 | 0.7 | 44 | 41 | 15 | 322 |
| Focus on timely topics (e.g., new temperatures for meats and poultry) | 2.2 | 0.7 | 40 | 44 | 16 | 324 |
| Use of demonstrations ("how-to" sessions) | 2.2 | 0.7 | 41 | 40 | 19 | 318 |
| Use of hands-on activities | 2.2 | 0.8 | 44 | 35 | 21 | 320 |
| Inclusion of practical information in the session | 2.2 | 0.7 | 37 | 46 | 17 | 321 |
| Small classes; lots of involvement by participants | 2.2 | 0.8 | 39 | 39 | 22 | 321 |
| Handing out printed materials during the session | 2.0 | 0.8 | 31 | 42 | 27 | 322 |
| Use of charts and other visuals during presentations | 1.9 | 0.7 | 23 | 48 | 29 | 321 |
| In-depth explanations of theories behind practices | 1.8 | 0.7 | 18 | 45 | 37 | 320 |
| Instruction by local chefs in food preparation and presentation | 1.8 | 0.8 | 22 | 34 | 43 | 322 |
| Use of role-playing as a part of the training session | 1.7 | 0.8 | 19 | 34 | 47 | 316 |

^aScale: Highly Preferred=3; Preferred=2; Not Preferred=1

Table 3. Site managers' (N=339) rating of training delivery modes

| Training Delivery Mode | Mean Rating ^a | SD | % Highly Preferred | % Preferred | % Not Preferred | n |
|---|--------------------------|-----|--------------------|-------------|-----------------|-----|
| Theme-based seminars allowing for discussions with other managers | 2.2 | 0.7 | 39 | 44 | 17 | 321 |
| State agency-sponsored conferences/workshops | 2.2 | 0.7 | 40 | 41 | 19 | 319 |
| Sessions sponsored by the foodservice industry | 2.2 | 0.7 | 37 | 47 | 16 | 319 |
| State school foodservice association conferences | 2.1 | 0.8 | 36 | 42 | 22 | 319 |
| District-wide inservices | 2.1 | 0.8 | 36 | 41 | 23 | 320 |
| Video-based instruction | 2.0 | 0.7 | 29 | 48 | 24 | 319 |
| American School Food Service Association conferences | 2.0 | 0.8 | 32 | 40 | 28 | 319 |
| Computer-based instruction (CD-ROM or disk) | 1.9 | 0.8 | 32 | 28 | 39 | 320 |
| Courses offered by colleges/universities | 1.9 | 0.8 | 24 | 39 | 37 | 320 |
| Instruction delivered via the Internet/World Wide Web | 1.6 | 0.8 | 17 | 32 | 52 | 317 |
| Interactive teleconferences | 1.5 | 0.7 | 13 | 29 | 59 | 314 |

^aScale: Highly Preferred=3; Preferred=2; Not Preferred=1

Research Sample

The researchers obtained a list of school names and addresses at an Internet site maintained by the National Center for Education Statistics. Numbers were assigned at random to each school, and the 1,000 schools with the lowest randomly assigned numbers were selected for the sample. The sample size was established by estimating the number of responses needed to ensure the desired level of precision and to warrant confidence in the results, given the population size and anticipated response rate. The researchers estimated that a sample of approximately 1,000 would be needed to achieve the desired level of precision (i.e., sampling error no greater than $\pm 5\%$ at a 95% confidence level).

Data Collection

The data collection procedure included an initial mailing of the survey instrument to the 1,000 schools in the sample. A cover letter accompanied the survey inviting participation and assuring

participants of complete confidentiality. During the pilot-testing process, the method of addressing the envelope to the school principal had yielded the higher number of responses, so this method was used for the initial mailings during the actual survey. Identification numbers stamped on the back page of the instrument were used to avoid sending reminders to managers who already had responded, as well as to permit the researchers to sort and analyze responses by the USDA region.

The first mailing attempt was followed several weeks later by a reminder, again addressed to the principals, who were asked to have the schools' foodservice site managers complete and return the survey form. With a response rate of less than 20%, the researchers sent a second reminder and a copy of the survey form to non-respondents. Envelopes for this mail-out were addressed directly to the schools' cafeteria managers. Responses to this mailing increased the total response rate to 34%.

Data Analysis

The researchers used the Statistical Package for the Social Sciences (SPSS, version 8.0) and Microsoft Excel™ to compile and analyze the data. Data analysis steps included:

- compilation of the number and percent of respondents selecting each response category;
- chi-square analysis of contingency tables (significance determined at a 0.05 alpha level) to determine key relationships between demographic characteristics (e.g., region) and level of interest in training topics; and
- development of a need index, format preference index, and delivery mode preference index to summarize levels of interest in the various topics, formats, and delivery modes.

The researchers computed the need index by weighting each response through a reverse scoring method. The responses were as follows: "Much needed for my own training" received a weight of 3; "Somewhat needed for my own training" received a weight of 2; and "Not a priority for my own training" received a weight of 1. The mean weight of all respondents' ratings for a specific item determined the need index for that training topic. The researchers used a comparable method to compute the Format Preference and Delivery Mode Preference indices. On all three indices, a high rating indicates a strong preference for that item among survey respondents.

RESULTS AND DISCUSSION

A total of 339 (34%) of the 1,000 site managers in the sample completed and returned the survey forms. Seven additional (0.7%) surveys were undeliverable by the U.S. Postal Service. The 34% response rate was somewhat low compared to the response rate of managers in Sneed and White's (1993b) study (42%). Because sample size is important in ensuring accuracy of the results and because the researchers anticipated the possibility of low response rates based on response rates in the pilot studies, the sample size was increased to ensure that a sufficient number of surveys would be returned to warrant confidence in the results. By using the equation $n(\text{surveys received}) = 339$, the level of precision associated with survey items is 5% at 95% confidence. That is, at a 95% level of confidence, the actual extent of support for a given

item among the population of school foodservice site managers would lie within 5% of the frequency obtained in this survey.

Representation and Precision of Survey Results

After assessing the extent to which survey results could be generalized with some confidence to the broader population of all site managers, the researchers concluded that the managers who responded to the survey were sufficiently representative of managers nationally to warrant confidence in using survey results as a basis for planning for the broader population of site managers.

The researchers first analyzed responses to determine whether respondents appeared to be representative of all U.S. school foodservice site managers based on regional representation. Two regions (Southeastern and Western) were somewhat under-represented, and two regions (Mountain-Plains and Midwest) were somewhat over-represented in the sample. Virtually no differences existed between the expected and actual values for the Mid-Atlantic, Northeast, and Southwest. Results of a contingency table chi-square analysis show that differences between the expected and actual regional distribution of responses were not significant. After careful examination of all items, the researchers concluded that regional under- and over-representation was sufficiently minor to preclude inferences of substantial effects on item rankings.

Sample Demographics

Demographic information provided by the 339 respondents indicated the following notable characteristics:

- Almost three-fourths (73%) of respondents worked in schools with fewer than 1,000 students, and a total of 88% worked in schools with 2,000 students or fewer.
- The largest percentage of respondents (39%) worked in elementary schools, while 29% indicated they worked with grades K to 12. Almost half (46%) of the respondents had 11 or more years of experience as a site manager. There was a notable percentage drop between those who reported 11 to 15 years of experience as site managers (21%) and those who reported 16 to 20 years of experience (9%). Only 9% had more than 25 years experience.
- Approximately one-third of all respondents (31%) supervised zero to three employees, while another 33% supervised four to eight employees. The majority (80%) of the respondents indicated that their staff positions are relatively stable, changing less than 5% each year. Only 9% of the respondents indicated they had a turnover rate exceeding 10%. This might explain why managers assigned relatively low ratings to the topic of dealing with employee turnover (**Table 1**).
- Almost all (96%) of the respondents' schools participated in the National School Lunch Program, and 74% participated in the School Breakfast Program. The overwhelming majority (89%) of respondents worked in foodservice programs that were self-operated. In addition, most respondents (83%) reported that their schools used onsite food preparation.
- Overall, 68% of the respondents indicated that 50% or fewer of their students were eligible for free or reduced-price lunches. More than half (61%) of the respondents' schools served fewer than 500 reimbursable lunches per day. Half of the respondents

indicated they work in schools where the student participation rate in the school lunch program is greater than 71%, while only 8% reported a rate less than 30%. Almost half (47%) of the respondents expected no change in student participation rates over the next two years, while 45% expected an increase in their student participation rate (excluding a la carte). Only 8% expected a decrease.

- Only 46% of the responding site managers indicated they currently had Internet access, while another 17% indicated they would have Internet access at their workplace within the next year. More than one out of three (37%) did not expect to have access to the Internet within the next year.
- Finally, there was relatively little regional variation in the proportion of respondents who indicated they had a high level of interest in further training, with 33% to 44% selecting the high priority response category. The regions varied more broadly in the proportion of managers reporting a low interest in training. Almost one-fourth (23%) of the respondents in the Mountain Plains region indicated a low level of interest in training, compared with an overall mean of 12%. In the Southeast and Midwest, the percentages of respondents reporting a high interest in training (56% and 36%, respectively) were five times larger than the percentages in those regions reporting a low interest (11% and 7%, respectively).

Site Managers' Perceived Training Needs

Results of the survey of school foodservice site managers yielded a distinct group of topics for which respondents expressed a relatively strong need for training. **Table 1** provides a complete listing of the training topics ordered by the mean rating of respondents' perception of their own need for training. A total of 12 items had a need index above 2.0, indicating a relatively strong need for training.

Higher priority training topics. The topic with the highest need index rating (2.2 ± 0.8) was team-building and motivating foodservice workers. This item was rated as "Much needed" by 38% of the respondents and as "Somewhat needed" by 40% of the respondents. A similar item, communicating effectively with foodservice workers to reduce conflict, tied with five other items for the second highest rating (2.1 ± 0.8) and was rated as "Much needed" by 33% of the respondents and as "Somewhat needed" by 40% of the respondents. In addition, a related item, evaluating on-the-job performance and providing constructive feedback to workers, was tied with nine other items with a mean rating of 2.0. One more item related to dealing with employees (encouraging professional manner and dress by foodservice workers), had an overall need index below 2.0 but was rated as a needed training topic by 80% of respondents with experience levels of 16 to 20 years. These results, combined with anecdotal information received through telephone interviews with managers prior to development of the survey instrument, suggest that learning to motivate and unite workers is an important topic of concern among site managers. Insight gained through telephone interviews and survey results indicate that much of site managers' time and energy is devoted to dealing with employee relations and performance issues. Managers in Sneed and White's (1993b) study rated these issues (e.g., building professionalism in staff, building teamwork, employee relations) high in regard to need for continuing education.

Another highly rated topic was using fire extinguishers correctly and training employees to use them, which had a need index of 2.1 ± 0.8 . This high rating is indicative of its importance to site managers as an issue that needs to be addressed through training. Further, this rating is supported by anecdotal information received during a telephone interview during which a site manager reported that one of the most useful training sessions she had attended involved a demonstration of how to extinguish a grease fire.

Three topics related to food handling and preparation also received high ratings of 2.1 ± 0.8 (**Table 1**). These items included handling food properly (cooling, heating, thawing), preparing food efficiently (using fewer steps), and training employees to use kitchen equipment and utensils safely. All three of these items were rated as "Much needed" or "Somewhat needed" by 71% to 74% of all respondents. Responses to the third item varied according to respondents' experience level, with interest in training being expressed by 87% of respondents with 16 to 20 years experience and by 85% of respondents with less than 2 years experience, but by only 56% of those with 11 to 15 years experience and 58% of those with more than 25 years experience ($\chi^2=28.5$, $p=0.005$).

Although the training topic of using computers for ordering supplies, e-mailing forms, etc., had a need index of only 1.9 ± 0.9 (**Table 1**), it deserves mention because 33% of the respondents rated it as "Much needed." Only seven items received the same or a higher percentage of "Much needed" ratings, and all seven of those items had need indices above 2.0. The low need index for training in computer use is due to the fact that 41% of the respondents rated this topic as "Not a priority." Thus, there appears to be relatively little middle ground, with the need for training in this area being very high for some and very low for others. This disparity may be linked to the demographic data indicating that only 46% of the respondents reported having Internet access currently, while 37% reported not anticipating having it within the next year.

Lower priority topics. Nine topics were rated as "Not a priority" by 50% or more of the respondents (**Table 1**). One of these topics was competing effectively with fastfood chains. Half of the respondents did not consider this topic to be a priority, although 77% of respondents with 16 to 20 years experience did express interest in training in this area. This topic also was mentioned in several telephone interviews prior to development of the survey.

The other topics not considered priorities by most respondents involved feeding programs, such as the School Breakfast Program, After-School Snack Program, and Summer Food Service Program. Also not considered priorities were recycling, dealing with employee turnover, working with vendors and others outside the school, managing water safety and analysis, and managing vending machines and stadium concessions. Overall, it appears that site managers are less concerned about secondary responsibilities than about their primary responsibility of managing staff and food production/presentation issues at their own sites.

Site Managers' Training Format and Delivery Mode Preferences

Training formats.

Survey results (**Table 2**) indicated that most respondents preferred training formats that were interactive, hands-on, timely, practical, and demonstrative. More than 80% of the respondents rated the following formats as "Highly preferred" or "Preferred":

- Seminars that allow interaction with other managers;
- Focus on timely topics (e.g., new temperatures for meats and poultry);
- Use of demonstrations ("how-to" sessions); and
- Inclusion of practical information in the session.

Formats with a high level of involvement by participants, including hands-on activities and small class settings, were preferred by 79% and 78% of the respondents, respectively. Another preferred format was printed materials handed out during the session, which was a preference of 73% of the respondents. The two training formats least preferred by respondents were instruction by local chefs in food preparation and presentation, and the use of role-playing as a part of the training session.

Training Delivery Modes

Survey results (**Table 3**) indicated that most respondents preferred a group-based training that allowed for networking with other site managers, such as in seminars, conferences, and workshops. At least 77% of the respondents preferred or highly preferred the following delivery modes:

- theme-based seminars allowing for discussions;
- state agency sponsored conferences/workshops;
- sessions sponsored by the foodservice industry;
- state school foodservice association conferences; and
- district-wide inservice workshops.

All five of these delivery modes had preference indices of 2.1 or higher. These results seem to support what Sneed and White (1993b) found in regard to preferred formats: managers prefer state and district workshops or meetings that include "personal interaction and are in close proximity to participants' homes."

Only one self-study delivery mode, video-based instruction, had a preference index above 2.0. Even so, its preference index of 2.0 was notably lower than the other preferred modes (with the exception of conferences held by the American School Food Service Association), and only 29% of the respondents highly preferred video-based instruction. Computer-based instruction (CD-ROM or disk) and courses offered by colleges/universities had preference indices below 2.0.

The least preferred training delivery modes were instruction delivered via the Internet/World Wide Web (1.6 ± 0.8) and interactive teleconferences (1.5 ± 0.7). More than 50% of the respondents did not prefer these delivery modes. It is important to note that only 46% of the respondents currently have Internet access. Participants in Sneed and White's (1993b) study also reported the lowest rankings for teleconferences. In general, more isolated, "on-your-own" training modes seem to be less popular than those modes that allow site managers to interact and learn together.

CONCLUSIONS AND APPLICATION

Based on survey results, the training needs of school foodservice site managers might best be met by relevant theme-based seminar programs that allow site managers to meet and network with each other. These seminars might be most useful when focused on team building and practical topics that would help site managers run their operations more smoothly and efficiently. Because printed information was one of the preferred delivery modes, printed material might be useful to seminar participants. While video-based instruction was seen as an acceptable self-study mode, this category had the highest number of respondents who considered it simply a "preferred" training delivery mode.

More specifically, the researchers recommend that foodservice site managers' training programs focus on several key issues, which were found to be central among the needs expressed by survey respondents.

Employee management and training. Because employee management and training represent 5 of the 12 highest-ranked training topics, perhaps most training emphasis should be placed on these areas. Team building, motivation, communication, employee evaluation, and training skills should be topics that are addressed at district and state conferences and seminars. Because these topics are closely related, a training session that focuses primarily on one of these topics might include elements that would be helpful in the other areas as well. For example, training in team building and motivating foodservice workers ideally would include training in using effective communication, performance evaluation, and constructive feedback. In meeting training needs in this manner, learning might be more effectively carried over from one topic to another.

Three preferred topics involved training employees to perform specific tasks (e.g., use a fire extinguisher, use kitchen equipment and utensils) or to follow certain practices (e.g., wash hands, use gloves). In order to be able to train employees effectively, site managers must first learn effective teaching techniques. Demonstration sessions may be useful for helping site managers learn to break tasks down into simple steps, to model tasks, to reinforce incremental progress, and to re-teach as necessary.

Management training in many settings includes role-playing as a skill-building tool. It should be noted that role-playing was not a preferred training format among respondents. Therefore, in training sessions that address employee management, it may be more effective to employ a discussion-oriented approach, possibly moderated by an individual with experience in employee relations, motivation, evaluation, and/or instruction. Small groups also would allow for more involvement by all participants. The preference for printed materials could be addressed by providing participants with outlines of the session and with printed checklists that could be adapted for local employee evaluations.

Practical Skills Training

The remaining preferred training topics dealt with practical skills that were needed on the job. Respondents wanted training in how to use fire extinguishers; how to handle food properly in terms of cooling, heating, and thawing; how to prepare food efficiently (using fewer steps); how to enhance the appearance, taste, and presentation of food; how to modify recipes to reduce fat,

sugar, and salt; how to market/promote the foodservice program; and how to ensure quality customer service.

Demonstrations ("How-to" Sessions) and Hands-on Activities Are Preferred Formats That Fit Well With Practical Skills Training. These strategies (learning by observing and learning by doing) should be used when possible, especially since these activities help to make training more practical. Session leaders should attempt to use settings, equipment, and products similar to those found at the managers' sites. Local chefs were not preferred as instructors or session leaders by most respondents; therefore, more effective session leaders might be individuals who are more familiar with a school environment. Video-based instruction, supplemented by printed material, is also a training option in the areas of food handling, food preparation, food presentation, and recipe modification. Whatever the delivery mode, supplementation with printed material might make the training more effective.

The topics dealing with marketing/promoting the foodservice program and ensuring quality customer service may be addressed effectively in seminars that allow interaction and networking with other site managers. This format permits the sharing of ideas and experiences that are helpful in determining what works best in certain situations. Training in computer use may be worthy of consideration due to the relatively high percentage of respondents who rated it as "Much needed." However, such training should be targeted only toward those site managers who are prepared and equipped to benefit from it.

In summary, school foodservice site managers in this survey sample seem to be interested in training that focuses on very practical topics conducted in very practical training sessions that carry over directly to their work environments. Sneed and White (1993b) argued that training formats matter because they impact managers' levels of participation, and this study indicates that managers might best participate in theme-based seminars that allow for both networking and discussions with other foodservice managers.

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