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## Needs Assessment Regarding Online Training for Paraprofessionals in the Expanded Food and Nutrition Education Program

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## **Needs Assessment Regarding Online Training for Paraprofessionals in the Expanded Food and Nutrition Education Program**

### **Abstract**

We conducted a needs assessment prior to development of an online training for paraprofessionals in the Expanded Food and Nutrition Education Program. Through interviews with Extension professionals and paraprofessionals from three Extension regions, we determined characteristics of paraprofessionals' existing training environments and the paraprofessionals' characteristics as learners. Interviewees supported the development and implementation of an online training and identified benefits related to online training. Paraprofessionals expressed preference for a video-based rather than text-based format and wanted the training to complement not replace face-to-face training. Our findings may be useful in supporting the development of effective online training that meets the needs of other Extension initiatives.

**Keywords:** [Expanded Food and Nutrition Education Program \(EFNEP\)](#), [staff development](#), [maternal and infant nutrition education](#), [needs assessment](#), [online training](#)

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## **Introduction**

Extension program leaders face numerous challenges when creating trainings for paraprofessional educators for programs such as the Expanded Food and Nutrition Education Program (EFNEP) (Byington & Baker, 2012). Paraprofessionals' training is intensive and continuous, addressing significant content, teaching methodologies, organizational rules, and terminology (Baker & Pearson, 2010; Byington & Baker, 2012). EFNEP lesson content is based on the Dietary Guidelines for Americans (U.S. Department of Agriculture [USDA] National Institute of Food and Agriculture [NIFA], 2013). Optional, supplemental lessons address topics relevant to participants with special needs, including pregnancy and infant feeding. Because supplemental lessons are taught infrequently, paraprofessionals are less confident with the content and delivery of those lessons. Thus, online training could

provide EFNEP paraprofessionals with timely updates on revised nutrition content and options for reviewing less frequently taught material.

Paraprofessionals work in geographically dispersed locations, further complicating training logistics (Byington & Baker, 2012). Also, EFNEP paraprofessionals are a heterogeneous group whose demographics vary widely, reflecting the diverse EFNEP audience (USDA NIFA, 2013). Several studies involving EFNEP paraprofessionals have shown wide variations in age, race/ethnicity, years as a paraprofessional, and levels of formal education (Auld et al., 2013; Cason, Thames, & Poling, 1998; Dickin, Dollahite, & Habicht, 2005, 2011; Hibbs & Sandmann, 2011; Singleterry & Horodyski, 2012).

These challenges make training expensive and time-consuming. Although many of these obstacles could be overcome through online training (Elkins & Pinder, 2015), paraprofessionals' perspectives on online training and access to and experiences with technology are not understood. Other Extension initiatives, such as the master gardener program, have involved the application of online training components for the purposes of reaching geographically dispersed audiences and providing flexible training schedules (Langellotto-Rhodaback, 2010). However, detailed needs assessments, including exploration of potential trainees' characteristics and preferences related to online formats, are underreported.

We undertook a study to address gaps in understanding of paraprofessional educators' training needs. Our objectives were

- to determine the need for, and feasibility of, an online training for paraprofessionals, with a focus on how to teach three supplemental maternal and infant nutrition, or MI, lessons;
- to describe paraprofessionals' existing training environments (learning context), including their access to the technology needed for online training; and
- to identify paraprofessionals' characteristics as learners.

Our findings provide information Extension professionals can use to design effective and appealing online training.

## Methods

A cross-sectional study involving in-person and telephone interviews with EFNEP supervisors and paraprofessionals from three Extension regions was approved by the Colorado State University Institutional Review Board.

## Participants

EFNEP supervisors and paraprofessionals were recruited from the two states that had purchased the most supplemental MI lessons for EFNEP's Eating Smart • Being Active (ESBA) curriculum. ESBA is used in more than 40 states and U.S. territories (Colorado State University Extension, 2015). Additional participants were recruited from a third state to confirm saturation of themes. To be eligible, supervisors had to be involved in paraprofessionals' training and paraprofessionals had to have had previous training on the supplemental MI lessons.

## Instruments and Data Collection

Semistructured interview protocols were based on instructional design tenets (Smith & Ragan, 2005) and adult learning principles (Knowles, Holton, & Swanson, 2011). Our principal investigator interviewed all participants between March 2014 and March 2015 and followed Patton's (1990) qualitative interviewing recommendations. Throughout each interview, the principal investigator summarized the participants' comments and asked participants for confirmation. Interviews were audio-recorded and averaged 40 min in length. An individual who was not part of the research team transcribed each interview verbatim.

## Data Analysis

We analyzed transcripts using a deductive thematic approach (Braun & Clarke, 2006) and a priori codes developed from instructional design tenets (Smith & Ragan, 2005) and adult learning principles (Knowles et al., 2011), with new codes added as needed. Our principal investigator and another experienced coder independently coded all transcripts in NVivo 10 and reached consensus on all results. To address our objectives, we organized similar comments as themes, in accordance with Smith and Ragan's (2005) instructional design recommendations, related to the learning context and learners' characteristics. Participant quotes selected from the transcripts and shown in the results tables herein were edited to enhance clarity.

## Results

The results address the following study objectives: the need for, and feasibility of, online training; the training environment; and learners' characteristics. Seven supervisors and 15 paraprofessional educators were interviewed. Table 1 shows demographic data for each group. All but one of the participants were female. Most supervisors (86%) and about half of the paraprofessional educators (47%) were White. Paraprofessionals had a range of educational backgrounds, with seven (46%) having a bachelor's degree and four (27%) having an associate's degree.

**Table 1.**  
Demographic Characteristics of Surveyed Extension Supervisors and Paraprofessionals

<b>Characteristic</b>	<b>Supervisors (<i>n</i> = 7)</b>	<b>Paraprofessionals (<i>n</i> = 15)</b>
Age	39 ± 6.6	44.1 ± 15.7
Gender		
Female	6 (86)	15 (100)
Years working in EFNEP	7.3 ± 5.7	3.7 ± 2.9
Race/ethnicity <sup>a</sup>		
White	6 (86)	7 (47)
Black/African American		3 (20)
Hispanic	1 (14)	5 (33)

Mixed	1 (14)	1 (7)
Education		
High school diploma		1 (7)
Associate's degree		4 (27)
Some college		3 (20)
Bachelor's degree	2 (29)	7 (47)
Master's degree	5 (71)	
Cooperative Extension region		
Western	4 (57)	7 (47)
North central	2 (29)	6 (40)
Southern	1 (14)	2 (13)

*Note.* Data shown are  $M \pm SD$  or  $f$  (%), depending on category. EFNEP = Expanded Food and Nutrition Education Program. <sup>a</sup>Respondents could select more than one answer choice.

## Need for Online Training

All supervisors and most paraprofessionals supported the idea of an online training that could be accessed as needed for the ESBA supplemental MI lessons (Table 2). Both supervisors and paraprofessionals noted that training for supplemental lessons takes more time and that because the lessons are taught less frequently, additional refresher training is required. They indicated that online training would save time and provide easy access for review. Paraprofessionals stressed the need to access online training at work, where they had access to Internet-enabled computers. EFNEP supervisors were aware of the need for technology access, and most were willing to help paraprofessionals navigate the online training and answer questions.

**Table 2.**

Need for and Feasibility of Online Training for EFNEP Supplemental Lessons

Theme	Representative quotes
Need for online training	
<ul style="list-style-type: none"> <li>• Extension supervisors unanimously supported the idea of online training</li> <li>• Paraprofessionals nearly unanimously supported the idea of online training</li> </ul>	<p>"I think it would be something [paraprofessionals] could use, of course, to help train. . . . Because the lessons are supplemental, say if someone hasn't taught them for a few months and they get a request, then they could brush up on their skills. The core lessons are taught over and over and over. The supplemental [maternal and infant</p>

nutrition] lessons are not. So the [online training] would be a good reference point." (Extension Supervisor 6)

"I think that a lot of the educators I know are going to want to do [online trainings] because most of us don't know a lot of [the supplemental lesson material]. And so I think it'll be a very valued part of the program. And I think if it goes well, it should be [a model for] the rest of the program [lessons]." (Paraprofessional 10)

### Challenges of current in-person training

- Initial training for new hires is more time-consuming than the training on the core lessons
- Paraprofessionals experience overload of information when training on the supplemental lessons takes place at the same time as training on the core lessons
- Many paraprofessionals need refresher trainings on the supplemental lessons
- Providing in-person refresher trainings is time-consuming

"Out of all the lessons of Eating Smart • Being Active, these three [the supplemental lessons] are the most difficult for [the paraprofessionals]. I think it is because of the content. I think it usually takes more time and more effort on the trainers' part to go through [the maternal and infant nutrition lessons]." (Extension Supervisor 3)

"They give out so much good information [but] . . . since we've already been drowned by all the other information from the other lessons . . . [the training on the maternal and infant nutrition lessons] doesn't sink in the same way." (Paraprofessional 8)

### Organizational support

- Paraprofessionals want scheduled work time to take online training as well as an opportunity to ask questions

"[It might be helpful to have] a time allotted . . . maybe a meeting or something where we could do this online training so that we're not having to rearrange classes or . . . do it on downtime, so having a specific time for us to take it." (Paraprofessional 12)

"When it comes to any questions about the curriculum itself, I think the supervisor should be able to answer

[those]." (Paraprofessional 9)

Online training benefits

- Provides training consistency
- Could save supervisors time if they currently provide in-person training with demonstrations of how to perform each activity in each lesson plan
- Provides easy access for review at any time and at one's own pace and minimizes supervisors' workload with regard to developing and delivering refresher trainings
- Could improve paraprofessionals' confidence in their teaching skills and might motivate paraprofessionals to teach more maternal and infant nutrition lessons

"I'm always a fan of electronic trainings in that paraprofessionals are able to access them and learn at their own pace. I think it could provide some consistency [because] the training and information is always available."  
(Extension Supervisor 5)

"[An online training] is going to make me, I think, a better educator [because] that way, the information that I'm educating my people with, I'll be comfortable in teaching it."  
(Paraprofessional 4)

*Note.* EFNEP = Expanded Food and Nutrition Education Program.

## Training Environment/Learning Context

Current training for the ESBA supplemental MI lessons usually takes place in person in group settings. There is no standardized training across states for these lessons, but respondents indicated that training includes reviews of the lessons alone or with supervisors, group discussions, and, most frequently, role plays demonstrating how to teach the lessons. More details about the learning context are presented in Table 3. Current training objectives stress the need to prepare educators to teach lessons as they were designed (maintain fidelity) and to improve educators' confidence. Both supervisors and paraprofessionals emphasized that online trainings should complement, not replace, in-person trainings, should be user-friendly, and should include videos showing how the supplemental lessons should be taught.

**Table 3.**

Current Training Environment and Learning Context for EFNEP Paraprofessionals

**Theme**

**Representative quote(s)**

Current training objectives

- To understand who should be taught the supplemental lessons
- To understand how to teach the

"The other goal we have [besides teaching educators how to teach] is to discuss outreach potential to this target audience [how to market EFNEP to

supplemental lessons and content on which the lessons are based

- To teach the supplemental lessons as they were designed to be taught
- To gain confidence in teaching the supplemental lessons

pregnant women]. Also, nutrition content is a huge part or goal of the training." (Extension Supervisor 4)

"[Our training goals are] to make sure we're following the [paraprofessional core competencies], that we're always sticking with research-based information, and that our educators have a great understanding that we teach all of our curriculum as written [curriculum fidelity]." (Extension Supervisor 6)

#### Online training use

- Should complement, not replace, in-person trainings
- Could be a part of initial training where paraprofessionals review content prior to in-person training, a review tool for complex content or skills learned during initial training, and/or an additional channel through which to provide updated information

"It would be good if it can be used in conjunction with what we already do. That is the way they are used to learning, in person, with their peers, from us. Then, if it is the same version or an altered version of the training, something as a refresher, maybe something that we do formally once a year, but it is also something that they could access when they need it." (Extension Supervisor 1)

". . . materials and things change. So it might be [helpful] to have some kind of access to online training." (Paraprofessional 11)

#### Online training format

- User-friendly
- Video-based (include audio if textual)
- Flexible, for use individually or in a group

"I think it is going to be really important that they feel it is easy to access and grabs their attention." (Extension Supervisor 1)

"I would like it to be a video so that I could see how some of the activities are supposed to be played out, to see how the lessons are supposed to be facilitated. I find that when it's just reading, I would skim through it, so I think a video would be better for me."

(Paraprofessional 12)

Online training content

- Training should primarily demonstrate the teaching of lesson activities
- Inclusion of the background nutrition content behind each lesson would be beneficial
- Evaluations, if included, should be in familiar formats such as multiple choice and/or true/false

"It's the one thing they ask me quite often: 'Oh, could you do this section of the lesson for me? Could you stand up and show me how you present it?' They seem to get a lot of value out of that."  
(Extension Supervisor 2)

*Note.* EFNEP = Expanded Food and Nutrition Education Program.

## Learners' Characteristics

Table 4 summarizes the paraprofessionals' characteristics as learners and motivations for completing an online training. Most paraprofessionals described themselves as visual learners, had at least some experience with online training, and said they would be comfortable doing such training again. About half of the supervisors said that at least some paraprofessionals did not have strong computer skills, whereas just a few paraprofessionals acknowledged this characteristic either in themselves or their colleagues. Paraprofessionals were interested in online trainings, in part, for the purposes of obtaining updated information and increasing their confidence in teaching. Supervisors noted that earning a certificate would be a motivation for some paraprofessionals.

**Table 4.**

EFNEP Paraprofessionals' Characteristics

Theme	Representative quotes
Trainees' characteristics	
<ul style="list-style-type: none"> <li>• Most paraprofessionals are visual learners and have some prior experience with online training</li> </ul>	<p>"I'm a visual person so . . . the video would be of interest to me." (Paraprofessional 14)</p>
<ul style="list-style-type: none"> <li>• Most paraprofessionals have some prior formal/informal maternal and/or infant nutrition education</li> </ul>	<p>"We've had, for example, the sexual harassment training [online], and I think it was like one other training that we had online as well. That was fine." (Paraprofessional 8)</p>
<ul style="list-style-type: none"> <li>• Supervisors and other nutrition specialists are common sources of information, especially for answers to questions from pregnant participants</li> </ul>	<p>"When I was pregnant, I got a lot of information because I was also receiving</p>

WIC." (Paraprofessional 9)

"I think the comfort level for me comes from knowing that I have this wealth of people behind me [and] that if I didn't know the answer to this question that I could get it for them." (Paraprofessional 10)

#### Motivation to take online training

- Paraprofessionals feel motivated to take the online training to review previously learned material, to improve their confidence in teaching, and/or to learn additional/updated information
- Paraprofessionals also are motivated when the training is mandatory and they can receive a certificate of completion

"Am I up to date? Is what I'm saying correct? If I look at that online training, then I feel more assured of myself when I'm standing before other people. I don't want to go in there and say that I'm still giving information from when the food pyramid was out." (Paraprofessional 6)

"Of course, [the paraprofessionals want training] for their own personal growth, but the certificate is very meaningful . . . It's very heartwarming to see them so genuinely interested in taking the course and earning a certificate." (Extension Supervisor 6)

*Note.* EFNEP = Expanded Food and Nutrition Education Program. WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

## Discussion

In 2012, Byington and Baker found that the training of Extension paraprofessionals varied across states. Our research corroborates that finding; even when the same curriculum is used in different states, there is no standardized training for paraprofessionals. This situation is concerning because consistent training is fundamental for achieving teaching fidelity, a necessity for objective program evaluation (Baker et al., 2014). Online trainings could facilitate consistent training delivery.

Our findings confirmed an interest in online training on the three supplemental lessons in the ESBA curriculum. This interest aligns with previous research showing that paraprofessionals consider training crucial to their success (Hibbs & Sandmann, 2011). Supervisors and paraprofessionals strongly indicated that online training should be used as a complement to, not a replacement for, in-person training.

Even when used to complement in-person training, online training can save program resources (Elkins & Pinder, 2015); for example, online training could decrease training time by removing the need for supervisors to demonstrate how to teach each activity from the lessons. Additionally, online training would reduce expenses due

to the reduced need for travel, would offer increased flexibility related to paraprofessionals' schedules, and would decrease paraprofessionals' time spent away from other job duties.

Prior research has shown that Extension supervisors were concerned about overloading paraprofessionals with information during training (Byington & Baker, 2012). An online training could provide a solution to this issue because each paraprofessional could complete the training at his or her own pace. After watching the videos, paraprofessionals could then practice with their supervisors or ask their supervisors questions.

Interviewees felt that online training could improve paraprofessionals' teaching self-efficacy. Christofferson, Christensen, LeBlanc, and Bunch (2012) found that paraprofessionals who participated in an online training felt better prepared to function in their jobs. However, the training provided by Christofferson et al. (2012) was a certification program that provided general nutrition knowledge but did not demonstrate how to teach a particular lesson. Thus, further research is needed to confirm the impact of online training on teaching self-efficacy. An important benefit of online training is having the opportunity to review content as needed. Paraprofessionals are challenged by program participants with special nutritional needs, such as pregnant women and women with infants. Because paraprofessionals infrequently teach the supplemental lessons that target these groups, they struggle with remembering how to teach the lessons with fidelity. Paraprofessionals could access online training videos whenever needed, without requiring their supervisors to spend time providing refresher trainings. In addition, including a review of the background nutrition content for these lessons in the online training would improve paraprofessionals' confidence in their abilities to address participants' questions.

Smith and Ragan (2005) emphasized the importance of analyzing learners' characteristics so that instruction can be designed to be effective and interesting. Paraprofessionals acknowledged that it is common to learn how to teach the MI lessons by observing a lesson role play. Interviewees' responses indicated that applying this methodology via a video-based online training would be appropriate, as most paraprofessionals considered themselves to be visual learners.

Online training success requires that employees have access to computers and Internet connections (Newton, Hase, & Ellis, 2002) and scheduled work time for participating in the training (Atack, 2003). The paraprofessionals who took part in our study had access to computers and Internet connections at work, but they mentioned the need to have scheduled time for completing the online training during work hours. Just as time is scheduled to attend in-person training, work time should be provided to complete online training (Atack, 2003; MacDonald, Bullen, & Kozak, 2010). Additionally, some paraprofessionals may need initial support to learn how to navigate the online training. Supervisors expressed willingness to help with this, and most paraprofessionals in the sample had at least some experience with online training.

Our study had some limitations. Although we conducted interviews in three Extension regions, we used a purposeful sample of Extension professionals and paraprofessionals from programs using the ESBA curriculum; thus, our results cannot be generalized. Furthermore, although education beyond a high school diploma is not required for EFNEP paraprofessionals, most paraprofessionals in our sample had some postsecondary education. That said, other studies related to EFNEP also have shown that many paraprofessionals have some postsecondary education (Dickin et al., 2005; Hibbs & Sandmann, 2011).

## **Conclusion and Implications for Research and Practice**

Knowing that paraprofessionals support the idea of online training provides an incentive for creating and using this option in initial and ongoing training to facilitate proper teaching techniques. A needs assessment is critical

for understanding what would make online training attractive and useful to a target audience and for identifying learners' preferences and characteristics. In our study, paraprofessional educators strongly preferred a video-based format over a text-based format, wanted online training to complement not replace face-to-face training, and thought the online modules could provide refresher training on how to teach specific lessons, particularly lessons taught infrequently. Future research might explore the effectiveness of online training in changing paraprofessionals' self-efficacy and teaching abilities.

In the long term, as more paraprofessionals complete online training, Extension could save time and resources dedicated to training by having a library of readily available refresher/review tools for paraprofessionals. Online training also can expedite the delivery of updated evidence-based information, guidelines, or skills because it lessens the difficulty of coordinating in-person training among geographically dispersed individuals. This feature of online training directly benefits program participants by ensuring that the most current nutritional knowledge is quickly passed on to paraprofessionals and shared in their classes.

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