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## **Examining Volunteer Management Needs and Preferred Professional Development Delivery Methods Among Extension Educators**

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*The purpose of this quantitative study was to investigate Penn State Extension educators' volunteer management needs and desirable professional development delivery methods. The participants were 92 Extension educators who participated in the online survey. The response rate was 47.4%. We found that the top five most preferable volunteer management content area needs among educators were volunteer communication, motivation, training, risk management, and coaching. The most desirable delivery methods of volunteer management content were webinars, one-time in-service training, factsheets, and series of workshops. The point-biserial correlation coefficient was used to show the correlation between specific volunteer management content area and professional development delivery method. Face-to-face training was preferred for topics such as needs assessments, utilization, teaching ethics and ethical decision making, motivation, coaching, risk management, and communication. Published content was the most preferred delivery method for topics such as writing position descriptions, selection, teaching ethics and ethical decision making, and risk management. Online education was a preferred delivery method for most topics, with the exception of marketing skills and utilization. Staff development personnel should consider these preferred delivery methods when designing training programs for Extension educators. Such consideration will enhance training effectiveness and learning.*

*Keywords:* volunteer management, professional development, Extension educators, professional development delivery methods

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## Introduction

Volunteer coordinators are critical for the organizational success of programs that utilize volunteers. When volunteer coordinators invest more time and resources into volunteer management, a volunteer's experience is improved (Rehnborg et al., 2010). Nonprofit organizations need to provide volunteer coordinators with the training and resources they need to achieve success in their roles, as these can help volunteer coordinators to be better prepared to handle programmatic challenges (Teuteberg et al., 2018).

Cooperative Extension is the outreach arm of the United States Department of Agriculture (USDA) and the land-grant organization that provides research-based, non-formal education to U.S. citizens (Rasmussen, 2002; USDA, 2019). The Extension program relies heavily on volunteers to carry out its programmatic activities. For example, in the United States, there are over 500,000 volunteers who work alongside 4-H Extension educators to provide quality youth development programming to 4-H members (National 4-H Council, 2019). Several Extension programs utilize volunteers to deliver and manage programs. Extension educators serve as volunteer coordinators for these educational programs. Thus, volunteer management is one of the Extension educators' key responsibilities.

There is a need for volunteer management training, specifically within Extension. Training for volunteer management is essential, yet one-third of paid volunteer managers did not have the training to complete their roles (Howlett, 2010). Volunteer managers are provided with few resources to complete their responsibilities, with little preparation (Brudney, 1992; Nesbit et al., 2016). Boyd (2004) noted that Extension should devote more time to ensuring volunteer coordinators receive proper information and training. Extension professionals who work with volunteers need volunteer management information, especially those new to the Extension profession (Casteel, 2012). Even though Extension professionals may be knowledgeable about working with volunteers, they still report a lack of available materials to help them complete volunteer management duties (Casteel, 2012). Multiple Extension studies have found that Extension professionals lack skills in volunteer management (Culp & Kohlhagen, 2001; Hange et al., 2002; King & Safrit, 1998). Culp et al. (2006) found that volunteer management needs for Extension professionals varied across regions. Therefore, there is a need for state-level Extension programs to identify needs related to volunteer management resources and trainings. This gap in the literature led to the present study, which examined volunteer management professional development needs and desirable delivery methods for professional development for Penn State Extension educators who manage volunteers.

## Literature Review

Various volunteer management models have been used to inform volunteer and volunteer management needs. For this study, volunteer management models were reviewed from the perspective of volunteer management information needs for Extension educators. Most previous

4-H volunteer leader studies used volunteer management models as a foundation for their research. Several volunteer management models were developed during the last 50 years to guide and evaluate 4-H volunteer programs. Among those models that have been most cited in the Extension literature were ISOTURE (Dolan, 1969), L-O-O-P (Penrod, 1991), GEMS (Culp et al., 1998), P.E.P. (Safrit & Schmiesing, 2004), and the 4-H Volunteer Program Model (Arnold et al., 2009). A brief description of each of the models is provided in the following paragraphs. Other existing volunteer management models identified were the Volunteer Management Cycle model (Lawson & Lawson, 1986), the Volunteer Professional Model for Human Services Agencies and Counselors model (Lenihan & Jackson, 1984), the Bridge from Dreams to Reality model (Vineyard, 1980), Master Volunteer Life Cycle Model (Strauss & Rager, 2017).

### **Volunteer Management Models**

**ISOTURE Model.** The ISOTURE model was created to manage volunteers (Boyce, 1971). Each letter in the acronym represents a separate phase of the volunteer management process developed by Dolan (1969). “I” stands for identification, or looking for potential volunteers to involve in the program. “S” or selection involves the process of choosing volunteers. The “O” or orientation process includes orienting leaders to expectations of the organization, other staff, and the program. The “T” or training piece refers to aiding volunteer leaders in developing attitudes and skills to enhance their performance. “U” or utilization involves assigning volunteers to a role so they can contribute. “R” stands for Recognition, which involves showing appreciation for volunteers’ efforts, either through extrinsic or intrinsic means. Finally, the “E” stands for Evaluation, which involves providing volunteers feedback, informally or formally.

Many previous studies were conducted to assess volunteer management needs in Extension programming based on the ISOTURE model (King & Safrit, 1998; Matthies, 2009; Rudd et al., 2002; Streiter & Powell, 2007). King and Safrit (1998) conducted a study to identify perceptions of and competencies related to the ISOTURE model within Extension work. They found that utilizing, supervising, and recognizing were the most important components of the ISOTURE model for 4-H extension educators working with volunteers in Ohio. 4-H educators rated identifying 4-H volunteer opportunities, recruiting, selecting, orienting, training, and evaluating as somewhat important. The authors concluded their study findings provide validation for applying the ISOTURE model to leadership development of 4-H Extension educators.

Matthies (2009) assessed and evaluated Texas county Extension educators’ perceptions related to volunteer management based on the ISOTURE model. Matthies (2009) concluded that areas of training and evaluation components of the ISOTURE model should be of interest for AgriLife Extension’s future trainings for educators working with volunteer management. Rudd et al. (2002) conducted a study to determine the professional competencies of individuals who manage Extension volunteers in Florida. Findings from their study revealed that Extension professionals felt they lacked skills in the following areas: motivation, recruitment, training, recognition, and evaluation. As a result, they created modules for the Extension professionals. These modules

were delivered via video presentations, PowerPoint slides, texts, supplemental readings, and exercises. Strieter and Powell (2007) evaluated New Jersey 4-H Extension educators' effectiveness within each of the components of the ISOTURE model and found challenges with the evaluation component of the model. Moreover, educators felt they lacked conflict management skills to handle issues that arose when evaluating volunteer performance.

**L-O-O-P Model.** Like the ISOTURE model, the L-O-O-P model utilizes an acronym (Penrod, 1991). The "L" in the L-O-O-P model stands for locating volunteers. The first "O" stands for orienting volunteers, again referring to orientating volunteers to expectations of the organization, other staff, and the program, highlighting the importance of both formally and informally helping volunteers adjust to the program. The second "O" stands for operating with volunteers, which involves educating and recognizing volunteers. Finally, the "P" stands for perpetuating the involvement of volunteers, ensuring they want to keep returning to the program. In 2010, Sutphin conducted an Extension volunteer management study and used the L-O-O-P model as a foundational part of the conceptual framework. Sutphin (2010) acknowledged that the L-O-O-P model recognized the importance of volunteer selection, orientation, training, recognition, and evaluation. Sutphin (2010) assessed volunteer screening practices by conducting a national study of Extension professionals and found that educators need more training for selecting screening tools for volunteers. The author recommended that each state conducts its own assessment to determine volunteer management training needs.

**GEMS Model.** The GEMS model was developed based on principles described in the ISOTURE and L-O-O-P models and drew from the 4-H Volunteer Leadership Development Program, the Volunteer Management Cycle, Volunteer Professional Model for Human Services Agencies and Counselors, and Bridge from Dreams to Reality models (Culp et al., 1998). The authors indicated that these articles lacked one or more of the necessary competencies for the constantly evolving field of volunteer management and thus created a new model.

The GEMS model has 18 phases and four distinct categories. The "G" in the GEMS model stands for generate, the first category, which includes needs assessments, position descriptions, and choosing and implementing volunteers. Educate, representing the "E" in the model, involves orienting, protecting, resourcing, and teaching. "M" stands for mobilize, which includes engaging, motivating, and supervising volunteers. Evaluation, recognition, retention, redirection, or disengagement are steps involved in "S" or sustain, which is the final component of the GEMS model.

Culp and Kohlhagen (2001) and Deppe and Kulp (2001) used the GEMS model to investigate volunteer management needs for Extension educators. Culp and Kohlhagen (2001) examined Kentucky 4-H educators' perceptions of their professional competence and frequency of use for volunteer management best practices. They used the GEMS model as a framework for instrument development. The authors found that 4-H Extension educators perceived they had the

highest needs in the following areas: providing resources, recognizing, supervising, recruiting, and engaging. Deppe and Kulp (2001) evaluated how frequently 4-H Extension educators in Ohio used the GEMS model and how important educators perceived the model to be. They found that there was little difference between the perceived levels of importance for all components in the model, and they concluded that the GEMS model overall provides a strong basis for Extension volunteer management programs. They identified the Sustain category as the training area with the biggest need.

**P.E.P. Model.** The P.E.P. model was developed by Safrit and Schmiesing (2004) and was based on principles identified by the L-O-O-P and GEMS models. Their study involved a literature review and the consultation of experts involved in volunteer administration. The “P” stands for personal Preparation, “E” for volunteer Engagement, and the other “P” for program Perpetuation. Each category included various subcategories. For example, Preparation includes Personal and Professional Development, Internal Consultant, and Program Planning. Engagement involves Recruitment, Selection, Orientation and Supervising, and Coaching and Supervision. Finally, Perpetuation involves Recognition and Evaluation and Impact and Accountability.

Two Extension studies (Lockett et al., 2010; Schmiesing & Safrit, 2007) cited the P.E.P. model as a guiding component in their conceptual framework. Schmiesing and Safrit (2007) conducted a national study with 4-H professionals to determine participants’ perceived importance for and level of competence in volunteer management competencies. They assessed the three main categories of the model, with constructs under each: Personal Preparation (Personal and Professional Development, Serving as an Internal Consultant, Program Planning); Volunteer Engagement (Recruitment, Selection, Orientation and Training, Coaching and Supervision); and Program Perpetuation (Recognition, Program Evaluation, Impact, and Accountability). Participants rated all areas as important overall ( $M > 3.34$ ) but did not rate their current competence as high as importance in each area ( $M < 2.71$ ), on a Likert-type scale where items rated 1 were “least important” and items rated 4 were “very important.”

Previous research studies investigated volunteer administrators’ competencies and assessed other factors that influence volunteers and volunteer program development. Lockett et al. (2010) conducted a Delphi study examining 15 Texas Master Gardener volunteer program coordinators’ competencies. The needed skills mentioned most by the panel were having people skills, maintaining a positive attitude, possessing management skills, and being able to share Extension’s purpose, mission, and goals. Wolford et al. (2001) determined that recognition is the most important need for master volunteers’ motivation for service. Newberry and Israel (2018) investigated motivations for volunteers’ participation in the Florida Master Naturalist program. The authors found that volunteers participate because they believed they could help the environment, explore, and socialize with others. Walker et al. (2017) assessed 98 Louisiana Master Horseman program graduates and found that volunteers’ training positively affected graduates’ horsemanship skills and their confidence and willingness related to teaching such

skills. Their results also showed males and those 45 and older were more confident about teaching equine topics than their female and younger counterparts. In future iterations of the program, it was recommended that instructors use varied teaching methods to address the needs of and increase confidence among female and younger Master Horseman program participants.

Takle et al. (2017) assessed recruitment and retention efforts for Master Gardener volunteers. The authors indicated that “recruitment and retention of younger and/or more diverse participants would be beneficial to sustaining the program and maintaining long-term community connections” (p. 1). Allread and colleagues (2011) measured peer impacts of the Master Forest Owner volunteer program based on their expertise in natural resource management. The authors found that peer-to-peer master volunteer programs can positively impact master forest owners. The authors recommended Extension educators use peer-to-peer programs to empower volunteers. Larese-Casanova (2011) assessed and evaluated the Utah Master Naturalist program participants’ experience with the program and found less experienced volunteers tend to learn more and have higher satisfaction with the program.

### **Delivery Method of Volunteer Resource Management Development**

Volunteer management models are an excellent tool for guiding and creating volunteer management needs assessment instruments. The above literature review discussed how volunteer management models can assist researchers when creating instruments to determine which volunteer training topics are most needed. However, it is also important that volunteer management content needs assessments determine relevant delivery formats for volunteer administrators.

Parker et al. (2011) suggested incorporating a variety of delivery methods that involve multiple senses and provide opportunities for interaction. Moreover, the authors recommended complementing education with printed materials to enhance the quality of education educational delivery strategies. In 2003, Radhakrishna et al. emphasized that Extension educators should consider various educational delivery methods to maximize program efficiency. The authors found that older landowners preferred traditional delivery systems such as newsletters, publications, and field tours; however, a positive correlation was found between technology-driven education and formal classes among landowners.

Bardon et al. (2007) wrote that the choice of delivery method in Extension might significantly affect program effectiveness. The authors emphasized that the availability of various delivery methods may influence clientele’s preference to receive information and that this preference can be difficult to predict. Campbell et al. (2013) reported that the education program participants in one volunteer management education program demonstrated positive behavior change and increased self-efficacy using the distance lessons. The authors concluded that distance lessons were effective in content delivery. Rader and Gannon (2015) reported high satisfaction among participants with the Extension course quality delivered online.

Parker et al. (2011) concluded that Extension educators should consider incorporating different delivery methods because this approach allows trainers to use “multiple senses, provide opportunities for interaction, and complement education with printed materials for at-home reinforcement” (p. 1). McCann (2007) concluded that in an online Extension in-service training, participants did not necessarily prefer the distance learning method as much; however, they learned more online than face-to-face. In 2013, Cater et al. reported Extension faculty’s preferences related to program delivery. The authors emphasized that face-to-face training has time and budget constraints. They confirmed that participants have increased interests related to cost and time when selecting an effective delivery mode of professional development, such as webinars, blogs, and Twitter feeds.

Lakai et al. (2012) reported that face-to-face small group workshops were among the most effective educational delivery methods of professional development. Some respondents indicated that online training, mentoring, and shadowing were effective. However, only a small percentage of respondents mentioned printed materials and electronic (CDs) as an effective education delivery method.

Training delivery method should be a key consideration when developing volunteer management trainings because it is essential for the success of any volunteer management system (Fox et al., 2009). Fox et al. (2009) reported that group training, email information, small support group, and videos were most preferable for volunteer management trainings. The modern volunteer administrator should identify the training that best fits the needs of volunteer administrators within their organization.

Using various teaching methods appropriate to volunteer management topics is vital for providing training on the multiple subtopics within volunteer management (Henderson, 2010). Brock and Herdon (2017) proposed that short videos may be a better training option for busy volunteer leaders, especially college students. Deslandes and Rogers (2008) recommended that volunteer trainings be separated by volunteers’ levels of experience (i.e., entry level, developmental level, and mastery level). Further, volunteer training should involve mentoring for new volunteers, giving resources, and being easily accessible (Cuskelly et al., 2006). In-person volunteer training has been found to positively inform volunteer satisfaction and help foster community among volunteers (Costa et al., 2006).

Volunteers likely have some differences in preferred training delivery methods than volunteer administrators. In addition, national Extension leadership is concerned that Extension educators do not receive enough training to manage volunteers (Boyd, 2004). Therefore, preferred methods of content delivery for Extension educators who manage volunteers need to be examined.

Conklin et al. (2002) asked Extension employees whether face-to-face, mentoring, reading materials, study tours, self-led educational materials, conference calls, television, web-based training, CD-based training, chat rooms, or video trainings were most preferred. The authors

found that face-to-face workshops, coaching and mentoring, and reading materials were the most desirable delivery methods for Extension educators and volunteer program coordinators. However, the authors noted that time and travel are barriers to face-to-face trainings, so other training methods should still be explored for Extension educators and volunteer coordinators.

Another study by Seevers et al. (2005) assessed 4-H educator's desirable delivery methods for volunteer management. They found that seminars/workshops, conferences, membership in professional organizations, and journal readership were the most preferred delivery methods. The authors asked how frequently Extension educators engaged in these activities and found that educators spent few hours engaging in training activities related to volunteer management.

There is a gap in the literature related to the relationship between volunteer management professional development topics needs and preferred educational delivery methods for volunteer management trainings. This study added an exploratory objective to describe these relationships.

Based on the review of literature, we have identified a need for Extension volunteer management training that is relevant in terms of geographic location, training content, and delivery method. Therefore, in this study, we assessed Penn State Extension educators' volunteer management needs in terms of both content and preferred program delivery methods.

### **Purpose and Research Objectives**

The purpose of this study was to investigate Penn State Extension educators' volunteer management needs and preferred professional development delivery methods. Additionally, this study explored the relationship between volunteer management needs and professional development delivery methods. The following three objectives guided the study:

1. Describe volunteer management professional development needs among Penn State Extension educators.
2. Describe the preferred delivery method for volunteer management professional development among Penn State Extension educators.
3. Determine the relationships between volunteer management needs and preferred professional development delivery method among Penn State Extension Educators.

### **Methods**

The target population for our study was Penn State Extension educators. The study's population consisted of 194 full-time Extension educators employed by Penn State Extension; all were invited to participate. We used a census approach and followed Dillman et al.'s (2014) online data collection technique. The acting director of Penn State Extension sent a pre-notification email to Extension educators and asked them to participate in this study. We sent a second pre-notification email and four email reminders. We collected data in April 2019. After removing

responses with missing data, the final data set included responses from 92 Extension educators, providing a response rate of 47.4%.

This is a descriptive-exploratory study. We used an online questionnaire to explore Extension educators' volunteer management needs, preferred delivery methods, and the relationship between volunteer management needs and preferred delivery methods.

We developed the Volunteer Management Content Area Needs scale using existing literature related to the volunteer management models: ISOTURE model (Boyce, 1971), L-O-O-P model (Penrod, 1991), GEMS model (Culp et al., 1998), P.E.P. model (Safrit & Schmiesing, 2004), the 4-H Volunteer Program Model (Arnold et al., 2009), and our observations of Penn State Extension volunteer management practices. We asked participants to rate their level of priority for volunteer management professional development topics, using a Likert-type scale, where 1 = *not at all preferred*, 2 = *not preferred*, 3 = *neutral*, 4 = *preferred*, and 5 = *very preferred*.

We developed a Professional Development Delivery Method scale using existing literature related to the identification of educational delivery methods, in-service training through distance education, education delivery strategies, online and social platforms for professional developments, preferred training delivery modes, program type categories, and delivery methods for volunteer management development (Cater et al., 2013; Conklin et al., 2002; Inwood et al., 2019; Fox et al., 2009; Kelsey & Mincemoyer, 2001; Lakai et al., 2012; Parker et al., 2011).

Thorn et al. (2017) estimated the overall reliability of three delivery methods by grouping 13 delivery methods into three categories: traditional, written, and media publications (newsletters/bulletins/fact sheets, peer-reviewed publications, videos, and radio programs), electronic dissemination (websites, online decision support tools, webinars, and social media), and face-to-face meetings (field tours, workshops, meetings, short courses, and formal classes). The reliability estimates for three categories of delivery methods varied from .61 to .75. We extended Thorn et al.'s (2017) approach, and based on a literature review of the definition of delivery method and its effectiveness, we grouped 13 delivery methods into four categories: face-to-face outreach (one-time in-service training, series of workshops – Cronbach's  $\alpha = 0.58$ ), publications (factsheets, curricular, newsletter, bulletins – Cronbach's  $\alpha = 0.73$ ), online education outreach (webinars, online courses – Cronbach's  $\alpha = 0.73$ ), and web-based content (education vides, websites, e-newsletter, social media page, blogs – Cronbach's  $\alpha = 0.76$ ). We asked participants to indicate their most preferred formats for delivery of professional development using a five-point Likert scale, where 1 = *not at all preferred*, 2 = *not preferred*, 3 = *neutral*, 4 = *preferred*, 5 = *very preferred*.

We also included five demographic questions. A panel of six Extension educators, Extension administrators, a graduate student in Extension education, and academic faculty members with expertise in survey methodology reviewed the instrument for face and content validity. The panel of experts determined that the instrument was sufficiently valid. To determine the reliability of

the instrument, a pilot test was conducted. For the pilot study, we selected 35 Penn State Extension professionals who were managing volunteer efforts in the organization. The response rate for the individuals completing the pilot study was 63% ( $n = 22$ ). The reliability coefficient of the overall volunteer management professional development needs scale was .877. Early and late respondents were compared to assess nonresponse error using the procedures suggested by Miller and Smith (1983). The first 30 respondents were assigned as the early phase respondent group, and the last 30 respondents were identified as the late phase respondent group. The early and late phases of responders were determined based on the day and time their questionnaire was returned. An independent  $t$ -test was performed to determine if the group mean for total scores on the four measured constructs differed between the two groups (early and late). The results of the independent samples  $t$ -test (alpha level of .05, two-tailed) for equality of means on scale scores of constructs between early and late is presented in Table 1. No statistically significant differences were found between early and late respondents, and as such, the results were generalizable to the study population.

Caution is advised in interpreting the study findings since the study participants are not a random sample. The findings of this study will only apply to those who participated, and as such, cannot be generalized to the entire population of volunteer leaders in the state of Pennsylvania.

**Table 1. Independent Samples  $t$ -test for Equality of Means on Scale Scores of Construct between Early and Late Respondents**

Scale	Early Respondents ( $n = 30$ )		Late Respondents ( $n = 30$ )		$t$	$p$
	$M$	$SD$	$M$	$SD$		
Mean volunteer management needs	3.21	.79	3.57	.56	-1.974	0.55

**Data Analysis.** We used SPSS® version 26 to conduct data analysis for the study. Independent variables and the dependent variable, overall volunteer management needs, were treated as continuous data. Descriptive statistics were utilized to describe the first and second research objectives. For research objective three, we used the Pearson correlation coefficient to measure associations between overall volunteer management professional development needs and professional development delivery methods. Davis' Conventions (1971) were used to describe the magnitude of relationships (see Table 2).

**Table 2. Describing the Magnitude of Correlations Based on Davis' (1971) Conventions**

Magnitude of Correlation Coefficient	Description
1.00	Perfect association
0.70 or higher	Very strong association
0.50 to 0.69	Substantial association
0.30 to 0.49	Moderate association
0.10 to 0.29	Low association
.01 to 0.09	Negligible association

## Findings

The study participants were Penn State Extension educators. The final data set included responses from 92 educators. The descriptive statistics for the demographic variables are presented in Table 3. Most participants were women (75.6%), and 61.4% were 25 to 54 years old. On average, educators had 12.26 years of experience working with volunteers. A majority (46.6%) were 4-H youth development educators.

**Table 3. Summary of Demographic Variables of Extension Educators**

Items	<i>n</i>	%	<i>M</i>	<i>SD</i>
Age				
< 25	1	1.1		
25-34	18	20.5		
35-44	23	26.1		
45-54	13	14.8		
55 and over	33	37.5		
Gender				
Female	65	75.6		
Male	21	24.4		
Tenure within organization			12.26	9.98
Experience working with volunteers within organization			12.24	10.04
Extension program area				
Agronomy and natural resources	8	9.1		
4-H youth development	41	46.6		
Animal system	3	3.2		
Energy, entrepreneurship, and community development	9	10.2		
Food, family, and health	9	10.2		
Food safety and quality	4	4.5		
Horticulture	14	15.9		

The first research objective was to describe the volunteer management professional development needs among Penn State Extension educators (see Table 4). The top five very preferred and preferable professional development needs were communication with volunteers (73.9%), volunteer motivation (68.2%), training volunteers (67.4%), risk management (64.4%) and volunteer coaching (58.8%). Higher mean scores indicate a greater need for volunteer management professional development content areas. The survey items with the highest mean values were (a) communicating with volunteers ( $M = 3.99$ ;  $SD = .96$ ), (b) motivating volunteers ( $M = 3.85$ ;  $SD = .96$ ), (c) training ( $M = 3.79$ ;  $SD = 1.08$ ), (d) risk management ( $M = 3.78$ ;  $SD = 1.08$ ), and (e) coaching ( $M = 3.68$ ;  $SD = 1.05$ ). The top three less preferred professional development were the following: writing position descriptions (29%), identification (36.7%), and selection (39.5). This was confirmed by the survey items, which had the lowest mean values: (a) writing position descriptions ( $M = 2.91$ ;  $SD = 1.09$ ), (b) identification ( $M = 3.22$ ;  $SD = 1.10$ ), and (c) selection ( $M = 3.23$ ;  $SD = 1.12$ ).

**Table 4. Volunteer Management Content Area Needs**

Items	Not at all	Not	Neutral	Preferred	Very
	Preferred	Preferred		Preferred	Preferred
	<i>N (%)</i>				
Communication	1 (1.4)	5 (6.8)	13 (17.8)	29 (39.7)	25 (34.2)
Motivation	2 (2.3)	5 (5.7)	21 (23.9)	36 (40.9)	24 (27.3)
Training	3 (3.5)	9 (10.5)	16 (18.6)	34 (39.5)	24 (27.9)
Risk management	3 (3.4)	8 (9.2)	20 (23.0)	30 (34.5)	26 (29.9)
Coaching	2 (2.3)	10 (11.5)	24 (27.6)	29 (33.3)	22 (25.3)
Orientation	1 (1.1)	9 (10.2)	28 (31.8)	32 (36.4)	18 (20.5)
Recognition	4 (4.6)	11 (12.6)	22 (25.3)	29 (33.3)	21 (21.1)
Marketing skills	3 (3.4)	7 (8.0)	33 (37.9)	29 (33.3)	15 (17.2)
Utilization	3 (3.4)	9 (10.3)	31 (35.6)	33 (37.9)	11 (12.6)
Ethics & ethical decision-making	3 (3.5)	16 (18.6)	23 (26.7)	30 (34.9)	14 (16.3)
Supervision	2 (2.3)	13 (15.1)	31 (36.0)	29 (33.7)	11 (12.8)
Evaluation	3 (3.4)	9 (10.3)	39 (44.8)	24 (27.6)	12 (13.8)
Selection	6 (7.0)	15 (17.4)	31 (36.0)	21 (24.4)	13 (15.1)
Needs assessments	8 (9)	11 (12.4)	33 (37.1)	19 (21.3)	18(20.2)
Identification	6 (6.9)	14 (16.1)	35 (40.2)	19 (21.8)	13 (14.9)
Writing position descriptions	8 (9.3)	24 (27.9)	29 (33.7)	18 (20.9)	7 (8.1)

The second research objective was to describe preferred delivery methods for volunteer management professional development among Penn State Extension educators (see Table 5). The top three preferred professional development delivery methods were webinars (70.8%), one-time in-service face-to-face training (64.1%), and factsheets (62.9%). The mean scores also confirm the level of preferred delivery method. Higher mean scores indicate higher preferability for volunteer management training delivery methods. The survey items with the highest mean values were webinars ( $M = 3.94$ ;  $SD = .75$ ), one-time in-service trainings ( $M = 3.70$ ;  $SD = .81$ ), and factsheets ( $M = 3.69$ ;  $SD = .85$ ). The three less preferable and very preferable delivery methods were the following: blogs (35.3%), social media page (26.1%), and bulletins (18.2%). The mean scores also confirm the level of preferred delivery method. The survey items scoring the lowest mean values were blogs ( $M = 2.79$ ;  $SD = .89$ ), social media page ( $M = 3.00$ ;  $SD = .88$ ), and bulletins ( $M = 3.02$ ;  $SD = .72$ ).

**Table 5. Professional Development Delivery Method**

Items	Not at all	Not	Neutral	Preferred	Very
	Preferred	Preferred		Preferred	Preferred
	<i>N (%)</i>				
Face-to-face Training					
One-time in-service trainings	2 (2.2)	2 (2.2)	28 (31.5)	45 (50.6)	12 (13.5)
Series of workshops	2 (2.3)	7 (8.0)	27 (30.7)	39 (44.3)	13 (14.8)
Publications / Published Content					
Factsheets	1 (1.1)	6 (6.7)	26 (29.2)	42 (47.2)	14 (15.7)
Curricula	2 (2.2)	7 (7.9)	37 (41.6)	37 (41.6)	6 (6.7)
Newsletters	4 (4.5)	17 (19.3)	31 (35.2)	29 (33.0)	7 (8.0)
Bulletins	3 (3.4)	13 (14.8)	51 (58.0)	21 (23.9)	0 (0)

Items	Not at all Preferred	Not Preferred	Neutral	Preferred	Very Preferred
	N (%)	N (%)	N (%)	N (%)	N (%)
Online Education Sessions					
Webinars	1 (1.1)	2 (2.2)	15 (16.9)	53 (59.6)	18 (20.2)
Online courses	5 (5.7)	8 (9.1)	25 (28.4)	35 (39.8)	15 (17.0)
Web-based Content					
Educational videos	4 (4.5)	5 (5.7)	30 (34.1)	40 (45.5)	9 (10.2)
Websites	4 (4.5)	8 (9.1)	32 (36.4)	37 (42.0)	7 (8.0)
E-newsletters	3 (3.4)	15 (17.0)	31 (35.2)	32 (36.4)	7 (8.0)
Social media page	4 (4.5)	19 (21.6)	41 (46.6)	21 (23.9)	3 (3.4)
Blogs	7 (8.0)	24 (27.3)	40 (45.5)	15 (17.0)	2 (2.3)

The third research objective was to determine the relationships between volunteer management needs and preferable professional development delivery methods. For analysis, we grouped 13 professional development delivery methods into four variables: face-to-face trainings, published content, online educational sessions, and web-based content (Table 6).

**Table 6. Correlation Between Volunteer Management Content Area Needs and Professional Development Delivery Method**

Items	Face-to-face Trainings	Published Content	Online Education Sessions	Web-based Content
	Needs assessments	.278**	.121	.159
Writing position descriptions	.205	.265*	.105	.103
Marketing skills	.158	.121	.343**	.294**
Selection	.186	.244*	.112	.159
Utilization	.220*	.158	.005	.214*
Ethics & ethical decision-making	.332**	.305**	.046	-.095
Motivation	.380**	.013	.191	.074
Coaching	.355**	.205	.162	.228
Risk Management	.277**	.465**	.067	.054
Communication	.296*	.109	.091	.095
Identification	.103	.166	-.087	.078
Evaluation	.102	.157	.104	.137
Orientation	.172	.150	.011	.030
Training	.189	.160	.061	.163
Recognition	.166	.074	.007	.092
Supervision	.148	.208	-.135	.118

Note. \*\*Correlation is significant at the .01 level (2-tailed); \*Correlation is significant at the .05 level (2-tailed).

The point-biserial correlation coefficient showed a significant, positive moderate association between face-to-face trainings and motivation topic needs ( $r = .380, p = .001$ ), teaching ethics and ethical decision-making topic needs ( $r = .332, p = .002$ ), and coaching topic needs ( $r = .355, p = .001$ ). A significant positive moderate association were found between published content and teaching ethics and ethical decision-making topic ( $r = .305, p = .004$ ), and risk management topic

( $r = .465, p = .003$ ). A positive moderate association was found between online education sessions and marketing skills development needs ( $r = .343, p = .007$ ).

Significant positive low associations were found between face-to-face trainings and needs assessment topic ( $r = .278, p = .008$ ), utilization topic ( $r = .343, p = .041$ ), risk management topic ( $r = .277, p = .009$ ), and communication with volunteers topic ( $r = .296, p = .011$ ); between published content and writing position description topic ( $r = .265, p = .014$ ), selection topic ( $r = .244, p = .024$ ); and between web-based content delivery and marketing skills development topic ( $r = .294, p = .006$ ) and volunteer utilization ( $r = .214, p = .046$ ).

## Discussion

Extension volunteers, if utilized strategically, can be an invaluable resource to help Penn State Extension facilitate programs to achieve its organizational mission. Extension educators' capacity to manage volunteers is essential. Extension educators must know how to recruit, train, motivate, and recognize community volunteers. The available information to Penn State Extension educators in volunteer resource management is insufficient. Therefore, this study investigated the volunteer management content area needs and professional development delivery method for Penn State Extension educators to help Extension more effectively achieve its mission.

Our findings aligned with previous volunteer management studies. We found that communication, motivation, training, and risk management were the highest areas of concern for Penn State Extension Educators. Other studies on Extension volunteer programs also found volunteer motivation as an area of attention needed for volunteer management (Newberry & Israel, 2018; Wolford et al., 2001). We found that writing position descriptions, identification, and selection were the lowest areas of concern. Arnold et al. (2009) also identified a need for training and support for volunteers. Walker et al. (2017) and Larese-Casanova (2011) also recommended that volunteer managers should consider adjusting trainings for volunteers as needed. Matthies' (2009) findings contradict our findings, as identification and selection were rated as high areas of concerns; however, this may be due to regional differences regarding volunteer management needs (Culp et al., 2006). Rudd et al.'s (2002) findings align with ours for motivation and training, but they also identified recruitment, recognition, and evaluation as areas of high concern. Again, this might be attributed to volunteer management need differences that can occur across regions (Culp et al., 2006). Aligning with our identified need of communication, a study of Extension educators in the New Jersey 4-H program showed that volunteers need conflict management training (Strieter & Powell, 2007). Wolford et al. (2001) and Culp (2001) found that changes in approaches communication and feedback with volunteers could strengthen master volunteer programs. Culp and Kohlhagen (2001) and Culp (2013) also identified risk management as a necessity for Extension volunteer managers. Stillwell et al. (2010), Culp and Schwartz (1999), and Kish et al. (2014) also identified a need to enhance volunteer motivation in the context of volunteer management.

Extension educators preferred face-to-face training to receive needs assessments training. Similarly, face-to-face training is preferred for topics such as utilization, teaching ethics and ethical decision making, motivation, coaching, risk management, and communication. Published content is the most preferred delivery method for topics such as writing position descriptions, selection, teaching ethics and ethical decision making, and risk management. Extension educators did not view online education as a preferred delivery method for most topics, with the exception of marketing skills. Similarly, volunteer leaders did not view web-based content as a preferred delivery method for most topics other than marketing skills and utilization. Staff development personnel should consider these preferred delivery methods when designing training programs for volunteer leaders. Such consideration will enhance training effectiveness and learning. Past studies indicated that in-person workshops were most preferred (Conklin et al., 2002). Our findings contradict previous findings that Extension educators often indicate that they preferred more face-to-face learning opportunities (Seevers et al., 2005). However, in recent years, Extension educators have indicated challenges with lack of time to complete tasks and increased work responsibilities (Lakai et al., 2012), which may explain the finding that webinars are rated as most preferred by educators in this study.

Moreover, this study addressed a gap in the literature and explored the relationships between volunteer management needs and professional development delivery methods that were grouped into four delivery methods: face-to-face trainings, published content, online education sessions, and web-based content. We found a significant relationship between face-to-face trainings and the following professional development needs: motivation, teaching ethics & ethical decision-making, coaching topic needs, needs assessment, utilization, risk management, and communication with volunteers. We also found a significant relationship between published content delivery methods and teaching ethics and ethical decision-making, risk management, writing position descriptions, and volunteer selection. The results of our study showed a significant relationship between online education session delivery methods and marketing skills development. We found a significant relationship between web-based content delivery methods and marketing skills development and volunteer utilization.

### **Implications**

Our results cannot be generalized across different state Extension systems. However, we recommend each state Extension system conduct its own volunteer management needs assessment to determine content and delivery format needs for volunteer management training for Extension educators. We especially recommend that master volunteer programs do this, as most studies in the literature only report 4-H needs for Extension volunteer management. Because educational technology is rapidly changing the way educators approach learning (Collins & Halverson, 2018), Extension should consider how these new technologies may be integrated into professional development for Extension personnel. As these technologies emerge and continue to change, it will be important to continuously assess Extension professionals'

preferences toward these technologies in the context of volunteer management professional development.

We have shared our results with Penn State Extension human development practitioners and Extension educators to aid in developing more relevant programming for Extension volunteers. Other Extension systems should also share the results of their assessments with volunteer coordinators and Extension educators to help them develop relevant programming related to volunteer management. The learning and organizational development units for each state Extension system should focus on making sure volunteer management trainings for educators align with needs from the literature and needs discovered in statewide Extension volunteer management needs assessments, as well as ensure they use preferred delivery methods. We believe that the results of our study will inform future Penn State Extension volunteer management training content and methods of delivery.

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