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Building Extension Professional's Capacity to Engage Volunteers: Evaluation of the Developmental Stages of an Extension Professional Model

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Cover Page Footnote

The DSEP model developed by Dr. Jim Rutledge is based on field research that evolved throughout Rutledge's Extension career. Dr. James Rutledge's leadership and management experiences over 40 years as a county educator, area educator, program specialist, and program leader positioned him to test and apply his theory resulting in creation of the DSEP model (Rutledge, 2021). We had the opportunity to work with Jim over the past 15 years as he presented the model in the north central region and nationally. Extension professionals in the north central region valued the model and included it in the design of the Achieving the Extension Mission through Volunteers course as a foundational model for Extension professionals. The model was evaluated and has positively impacted professionals across all Extension disciplines. We appreciate the opportunity to work with Jim in the analysis of the model as we publish this article. This work represents a collaborative effort across multiple states as reflected in the authorship. We wish to acknowledge Kari Robideau for her leadership in the continued development and delivery of the AEMTV course. We want to thank course participants who contributed to this research. Finally, we express gratitude to colleagues involved in course development and facilitation.

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Building Extension Professional's Capacity to Engage Volunteers: Evaluation of the Developmental Stages of an Extension Professional Model

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Abstract. The Developmental Stages of an Extension Professional (DSEP) model depicts how professionals can move through the stages of service, education, management, and leadership to build volunteer and program capacity. It encourages Extension professionals to assess the situation and adjust their leadership style. Researchers used a mixed methods approach to assess Dr. James Rutledge's DSEP model. Findings confirmed training Extension professionals in the DSEP model throughout the Achieving the Extension Mission through Volunteers course led to positive behavior change when working with volunteers. Extension needs to train professionals and utilize the DSEP model to build program capacity through volunteer engagement.

INTRODUCTION

Volunteers are integral to Extension's ability to deliver programs, reach new audiences, and increase program capacity (Franz, 2015; Lockett & Boyd, 2012; O'Neil et al., 2021). While volunteers work directly with clientele and deliver educational experiences, they also help organizations thrive (Grant et al., 2020). Engaged volunteers bring richness to Extension programs that cannot be achieved by paid professionals alone (Worker et al., 2020). They serve as program ambassadors, recruiting and welcoming participants while representing Extension (Grant et al., 2020).

A key predictor of program quality is having well-trained professionals (Norze & Cater, 2020). When designing professional development, Extension must consider how employees will use self-leadership to transfer the knowledge to their work (Kaslon et al., 2023). As professional development requires change throughout one's career, so do program development strategies (Cummings & Worley, 2015).

Extension administrators have identified volunteer development as a core competency where employees have not been fully prepared to engage and manage volunteers (Elliott-Engel et al., 2021). Early career professionals have also identified the need for volunteer management training (Benge et al., 2020). According to Culp (2012), sustaining volunteers can occur through intentional volunteer involvement. Professional development is needed to move Extension professionals from management tasks to authentic volunteer engagement (Washburn et al., 2020).

Equipping Extension professionals with the knowledge and skills to work with volunteers to build program capacity adds public value and leads to community change (Allred et al., 2011; O'Neil et al., 2021; O'Neil et al., 2023; Van Den Berg & Dann, 2008). Those who shift their leadership practices to give volunteers more responsibility for teaching, making program decisions, and leading major programming efforts in communities see an increase in Extension impact (O'Neil et al., 2023).

In response to the need to prepare Extension professionals to work with volunteers effectively, the North Central Region (NCR) Volunteer Specialists developed a course, Achieving the Extension Mission Through Volunteers (AEMTV). The national online cohort-based course for Extension professionals is designed to increase volunteer leadership and management competencies (NCR Volunteer Development, 2021).

Professionals in this course engage in content, reflect on their work, and apply volunteer systems concepts to

their programs. Over seven weeks participants spend four to six hours per week to complete learning modules while interacting with online activities, including pre-recorded presentations, discussion boards, live webinars, and video conference calls (O'Neil et al., 2023). One component of the course is to move participants through the Developmental Stages of an Extension Professional (DSEP) model, with an intended goal of reaching the leadership stage of volunteer engagement.

CONCEPTUAL FRAMEWORK OF THE DSEP MODEL

The DSEP model (Table 1) is a conceptual framework that describes how professionals can move through the developmental stages of service, education, management, and leadership when working with volunteers (Rutledge, 2008; 2021). The goal of the DSEP model is to create a shift in Extension professionals' leadership practices that incrementally gives volunteers more responsibility for teaching programs, engaging in program decision-making, and leading major programming efforts in communities. Regardless of the Extension program area, the model guides professionals to assess the situation and adjust their leadership style to build program capacity with volunteers. Understanding the intersection of task behavior and relationship behavior, as outlined in Hersey and Blanchard's Situational Leadership Model (1988), was foundational in the development of the DSEP model and builds on the volunteer systems work of Dolan (1969), Boyce (1971), and Boyd (2003).

The DSEP model is based on field research and grounded theory that evolved through Dr. Jim Rutledge's (2008; 2021) work with Extension professionals and volunteers. The data analysis for grounded theory research involves a constant comparative method (Lincoln & Guba, 1985; Merriam et al., 2019). Prior to our study, the DSEP model had no formal evaluation. Our evaluation provides research to support the application of the DSEP model by participants in the AEMTV course. Extension professionals in the course affirmed its relevance to their work and acknowledged how they engaged volunteers to increase program capacity when using the DSEP model (O'Neil et al., 2023).

DESCRIPTION OF THE STAGES IN THE DSEP MODEL

The DSEP model is a strategy for Extension professionals to build volunteer capacity in program delivery. Each stage of the DSEP model (service, education, management, and leadership) increases volunteer engagement in Extension programs. When volunteers are engaged, they add value to the communities where they live and work (O'Neil et al., 2021). Extension program development happens in the context of communities (Bruns & Franz, 2015) through collaboration between professionals and volunteers.

The DSEP model (Table 1) illustrates how professionals can move through the developmental stages (Rutledge, 2008) to build program capacity. The model outlines the Extension professional's role in each stage, how the Extension professional views the volunteers, the functions of the volunteers, and the capacity of the educational system. We worked with Dr. Rutledge to revise the original DSEP model (Rutledge, 2017) to reflect current Extension professionals' roles and volunteer functions; this became the current DSEP model (Rutledge, 2021) tested in this paper. The following is a description of each stage in Table 1 and a narrative of how it is used by professionals in their work.

SERVICE STAGE

In Rutledge's service stage, the professional focuses on responding to volunteer requests and proving their worth (Rutledge, 2008). While this allows for relationship development, program growth is limited to the motivation and interests of the professional. They learn the job and spend more time doing tasks for volunteers than asking them to take ownership of the program. Therefore, volunteer engagement and shared leadership responsibilities are limited.

There is value in professionals spending time in the service stage. A parallel experience, described as "learning the roles and responsibilities," is key to fully understanding the skills and competencies needed to pass on to volunteers (Brodeur et al., 2011, p. 8). The creation of meaningful "master" volunteer engagement is contingent upon the professional's readiness to engage in shared planning and implementation of programming (Washburn et al., 2020). Extension professionals increase confidence in their skills and abilities to assess the program, moving from personal to program growth.

EDUCATION STAGE

According to Rutledge (2008), the education stage focuses on volunteers learning to teach what professionals usually teach, which begins to build program capacity. The professional views themself as the teacher, empowering others to facilitate programs. When the volunteer assumes teaching responsibilities, the professional's role shifts.

In the education stage, trust is key in the partnership between the volunteer and professional (Snider, 1985; Washburn et al., 2020). Snider (1985) identified seven factors to help professionals let go of control and delegate to volunteers: 1) self-confidence, 2) belief in volunteerism, 3) a strong support system, 4) starting small, 5) developing a middle management volunteer concept, 6) bringing stakeholders along, and 7) volunteer selection. As professionals apply this

stage, they learn to delegate, volunteers assume increased responsibility, and program capacity increases.

MANAGEMENT STAGE

Rutledge's (2008) management stage is "learning to do things through the work of others." In this stage, Extension professionals understand that strengthening and expanding program offerings comes through meaningful volunteer engagement. Boyce (1971) stated that connecting the right volunteer to the right opportunity at the right time reflects the effective use of volunteers. Professionals identify skills in volunteers and recruit these volunteers to fill roles beyond the professional's capacity. Boyce named middle-management volunteers as those who direct other volunteers or assume primary responsibility for one program component.

Participant and volunteer engagement increase when volunteers are placed in middle-manager roles (Cassill et al., 2012; Schwertz, 1978; Snider, 1985). Extension programs are stronger when professionals involve volunteers in needs identification and decision-making. Building volunteer skills in teaching, planning, and implementing programs is a fundamental role of professionals.

LEADERSHIP STAGE

Rutledge's leadership stage describes an Extension professional's ability to assess the volunteer system they manage and determine how to work effectively within the system. Hager and Brudney's (2015) research encouraged volunteer managers to use a contextual approach in which professionals review their volunteer system and select best practices for the volunteer environment they manage. This example of transformational leadership is a powerful indicator of leadership success (Judge et al., 2004; Lowe et al., 1996).

Bass and Avolio (1990) identified transformational leaders as those who elevate employees' thinking to look beyond their own self-interest. Rose (2010) built on this study and found that 4-H volunteers feel empowered by Extension professionals who exhibit transformational leadership traits. Alams et al. (2020) highlighted the importance of volunteer managers being transformational leaders. Trained professionals who practice transformational leadership with volunteers increase program capacity.

PROGRAM CAPACITY BUILDING

The ultimate goal of the DSEP model is to bring about transformational change by educating Extension professionals to empower volunteers. Transformational change goes beyond improving the organization and focuses on how the organization views itself and the environment (Cummings & Worley, 2015). Organizational leadership plays a significant role in retaining volunteers (Almas et al., 2020). When the volunteer and the professional share responsibility for the development, implementation, and evaluation of a program, the professional's role shifts (Rutledge, 2008). Utilizing volunteers at different leadership levels increases program capacity and creates a competitive edge for Extension programs as illustrated in Table 1.

PURPOSE AND OBJECTIVES

The purpose of this study was to understand how Extension programs can be expanded when professionals use the DSEP model to work with volunteers. The research question for this evaluative study was, "Does the use of the Developmental Stages of an Extension Professional (DSEP) model by professionals engage volunteers to expand Extension programs?"

Our objectives were to:

1. Document the understanding of the DSEP model by Extension professionals.
2. Assess the effectiveness of the application of the DSEP model by Extension professionals when working with volunteers.

METHODS

OVERALL DESIGN

To understand how the course facilitated participants' movement across the DSEP model, we designed a mixed-methods evaluation following the commonly used triangulation design. Specifically, we used the Creswell and Plano Clark's (2017) mixed methods triangulation design for the evaluation to compare quantitative and qualitative results and then interpret the two together. Creswell noted that this type of design is "used when a researcher wants… to validate or expand quantitative results with qualitative data" (Creswell & Plano Clark, 2017, p. 62). As noted by Creswell and Plano Clark, the triangulation method is frequently used to understand nuances that may exist in inquiries that try to explain complex phenomena.

INSTRUMENT DEVELOPMENT / SURVEY DESIGN

We designed and administered a retrospective pre-post test survey to measure the AEMTV course participants' understanding and application of the DSEP model. Questions were developed to obtain quantitative and qualitative data aligned with the conceptual framework of the service, education, management, and leadership stages of the DSEP model (Table 2). Our study followed a triangulated design of open-ended qualitative questions, which were asked after the quantitative measures to test the DSEP model and assess how using the model impacted course participants and the programs they lead. This methodology is useful

Table 1. Developmental Stages of an Extension Professional Model, Adapted from the "The Developmental Stages of an Extension Professional Model" (Rutledge, 2017)

	Service	Education	Management	Leadership
Extension Professional's Role	*Servant* Doing things for the program and volunteers. Not willing to share responsibilities with others.	*Teacher* Teaching volunteers those things the professional feels confident to teach to others.	*Manager* Professional/Specialist facilitates the involvement of others in providing programs and begins to recruit others with talents other than their own.	*Leader* The role of the professional is to see the big picture and set the vision for the organization. The professional facilitates the empowerment of anyone that can contribute to the future success of the program.
Extension Professional's View of Volunteers	*Recipient* Professional does things for the volunteers.	*Learner* The volunteer's role is to learn what the professional teaches.	*Volunteer Staff* Volunteers are perceived as working "on behalf" of the organization.	*Partner* Volunteers are seen as key resources to achieve the vision they create together. Volunteers are valued for what they can contribute to the vision.
Functions of the Volunteers	*Recipient* Volunteers are not involved in any meaningful dialog about the leadership of the program.	*Learner* The volunteer becomes an extension of the professional, teaching only what the educator has taught them.	*Teacher* The volunteer's role is to conform to the professional's view of the program. The volunteer is given responsibility to lead programs the professional is not interested in or talented in.	*Middle Manager* Volunteers perform nearly any role that a professional would perform as long as it is consistent with the agreed upon vision. Volunteers take responsibility for major parts of the program.
Capacity of the Educational System	*Very Limited* The growth of the program is dependent on the professional's energy and interests.	*Limited to Professional & Select Volunteers* Program capacity is still limited to the interests and energy of the educator.	*Expanded Opportunities* The program can grow up to the limits of the skills of the professional and any volunteers they recruit. Because the professional is recruiting outside of their own comfort zone, the capacity is greatly increased.	*Unlimited Opportunities* The capacity of the program is limited only by the number of people that can be energized by the vision and empowered to act on behalf of the organization.

for addressing a mixed-methods approach (Stoecker & Avila, 2020). The research team chose this approach, as understanding colleague motivation is often subjective and not well understood using a single quantitative instrument.

We piloted the survey with multiple course participants to ensure question clarity and construct face validity (Groves et al., 2009). In our study, we used face validity to ensure that questions asked to a larger group would represent their thinking on a particular topic. Slight adaptations to questions were made and included in the final survey after receiving feedback from Extension colleagues to ensure the wording reflected the content being measured. Face validity has been used in educational and psychological research for many decades as a way of establishing whether a question appears to be practical to a person answering the question (Nevo, 1985). The final survey was reviewed by the University of Wisconsin IRB, and it was determined that an IRB was not needed since it was a course evaluation.

DATA COLLECTION PROCESS

Quantitative and qualitative data were collected simultaneously using a single survey instrument that incorporated closed (Likert-type scale questions) and open-ended essay responses. Questions were designed to

understand how participants adopted knowledge taught in the course and their perception of how it changed their professional practice. Quantitative items included 11 closed-ended Likert scale questions assessed on a 4-point scale from strongly disagree to strongly agree. The survey measured two main constructs (Table 2) associated with the DSEP model: (a) five-item measure of application/behavior change related to the shift of volunteer engagement in their program before and after the course, and (b) six-item measure of application/behavior change related to their personal approach to working with volunteers before and after the course.

To further understand application and impact of the DSEP model use (Rutledge, 2008), our survey incorporated two open-ended qualitative questions aligned with the DSEP model: "As a result of taking this course as an Extension professional, (1) Describe how you work with volunteers differently; and (2) Share one way you have moved from doing a project, event, or activity yourself to empowering volunteers to take leadership for that project, event, or activity." These questions were designed to elicit general responses that could then be coded into the DSEP model conceptual framework in the qualitative phase of the analysis.

The overall evaluation framework is illustrated in Figure 1. It describes the Extension professional's role in relation to the stages of the DSEP model. It combines Table 1 and Table 2 to show how the Extension professional's role changes as they move through the stages of the DSEP model. As volunteers assume more responsibility for content or process delivery, professionals move to the management and leadership stages in the model. We intentionally aligned the survey questions with each stage to determine whether participants changed their behavior as they applied the DSEP model in their work.

Employees transition from service to education, management, and leadership as volunteers take on additional leadership roles. Developing relationships with volunteers is important at each stage of the model.

Table 2. Quantitative Survey Questions Aligned with the Developmental Stages of an Extension Professional Model

Developmental Stage	Extension Professional's Role	Quantitative Survey Questions	
		Volunteer Engagement Shifts [a]	**Personal Approach to Working with Volunteers** [b]
Service	*Servant*		
	Doing things for the program and volunteers. Not willing to share responsibilities with others.		Most aspects of the program are my responsibility
Education	*Teacher*		
	Teaching volunteers those things the professional feels confident to teach to others.	Volunteers mostly teach and contribute only what is taught to them by Extension professionals.	I am comfortable letting others teach volunteers.
Management	*Manager*		
	Professional facilitates the involvement of others in providing programs and begins to recruit others with talents other than their own.	Volunteers are given responsibility by Extension professionals to lead or teach programs.	I recruit others to deliver programs. I delegate tasks to volunteers so I do not have to be at every event/activity.
Leadership	*Leader*		
	The role of the professional is to see the big picture and set the vision for the organization. The professional facilitates the empowerment of anyone that can contribute to the future success of the program.	Volunteers are involved in dialogue or decisions about leadership of the program. Volunteers have responsibility for major parts of the program. Volunteers perform nearly any role that an Extensional professional would perform.	I empower volunteers to take the lead on projects that interest them. I include volunteers in setting the vision for the program.

[a] Five-item measure of application/behavior change related to the shift of volunteer engagement in their program before and after taking the course. [b] Six-item measure on application/behavior change related to their personal approach to working with volunteers before and after the course.

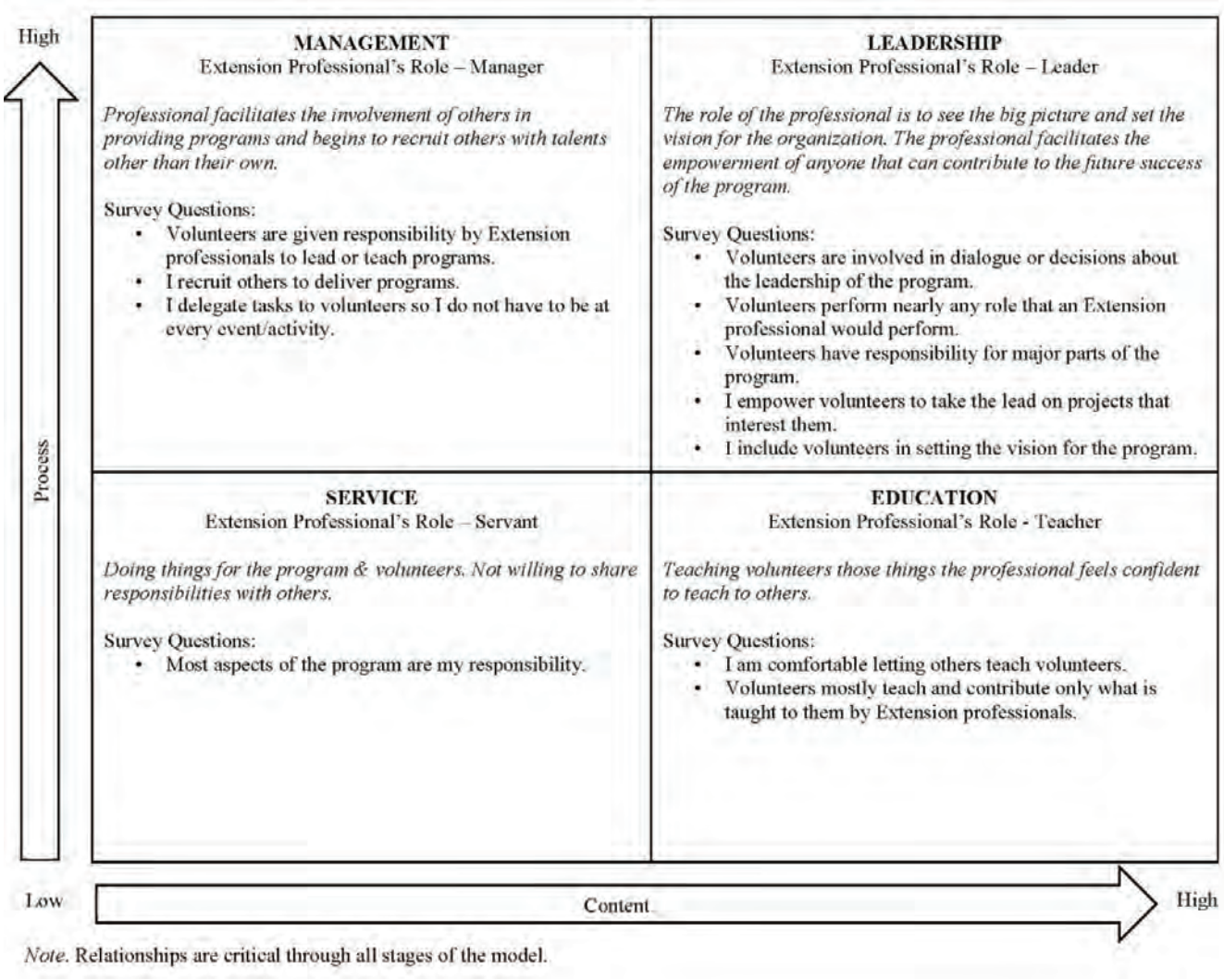

Figure 1. How extension professionals move through the DSEP Model stages.

POPULATION AND SAMPLE

AEMTV course participants represented Extension employees across program areas who work with volunteers. Prior to recruiting survey participants, state volunteer specialists confirmed email addresses for individuals who completed the course and were still employed by Extension. After accounting for incorrect email addresses, 379 individuals were invited to participate in the study.

The census represented four years of course participants, from 2015 (pilot year) through 2018. The survey was administered in April of 2019. We had 154 respondents (41% response rate) from 17 states. Those missing significant data or key variables were removed from the analysis, resulting in 127 respondents. The majority of respondents (54%) had five or less years of Extension experience. Table 3 illustrates the demographics of the census: gender, race/ethnicity, and program area. Table 4 represents the states who had participants complete the survey.

DATA COLLECTION

Data were collected using a single Qualtrics electronic survey. Dillman's (2007) tailored design method was used to increase survey responses. We sent an introductory email message to alert course participants about the survey and the importance of the evaluation. We also sent a survey message with the first survey link and two reminder emails over a 4-week period for individuals who had not completed the survey.

DATA ANALYSIS

Our data analysis is divided into quantitative and qualitative results, with the qualitative results providing specific examples of the changed participant behavior through their response

Table 3. Covariates / Demographic Information (N = 127)

Gender	n	%
Female	91	72
Male	18	12
Preferred not to respond	20	16
Race / Ethnicity		
American Indian / Alaska Native	1	1
Black / African American	2	2
White	101	79
Preferred not to respond	12	18
Program Area		
4-H Youth Development	85	67
Agriculture (Master Gardeners, etc.)	24	19
Family Living / Health & Well Being / Human Development	6	5
Natural Resources	2	1
No Response	10	8

Table 4. State Response Rate (N=127)

State	**n**	**%**
Minnesota	33	26.0
Wisconsin	22	17.3
Indiana	14	11.0
No Response	10	7.9
Illinois	7	5.5
Missouri	7	5.5
North Dakota	7	5.5
South Dakota	6	4.7
Nebraska	5	3.9
Maine	3	2.4
West Virginia	3	2.4
Michigan	2	1.6
Vermont	2	1.6
Wyoming	2	1.7
Kansas	1	0.8
New Mexico	1	0.8
North Carolina	1	0.8
Ohio	1	0.8

to open-ended questions. We excluded six individuals from the quantitative analysis due to excessive missing data on key items. Those individuals did respond to the qualitative essay questions, so they were kept in the sample for the qualitative portion of this analysis.

Quantitative results were analyzed in two steps. First, a review of descriptive statistics and frequencies was used to assess any practical changes that occurred. Following that review, non-parametric statistical tests (Wilcoxon Signed Rank Tests) were used to assess change for each ordinal variable (Ross, 2017). All statistical analyses were conducted using STATA 14.1 (StataCorp, 2015).

The reliability of the scales was tested using Cronbach's alpha. The Cronbach's alpha results for the DSEP questions were .684 for the volunteer engagement shifts and .736 for the personal approach to working with volunteer items (Table 2). The results indicated that the scales were moderately reliable (Bernardi, 1994; Bonett & Wright, 2015; Field, 2013; Perry et al., 2004).

The goal of qualitative research is to formulate ideas and theories to learn more about the subject being studied (Rossman & Rallis, 2003). There were between 68 and 79 qualitative responses per question. Participant comments added to the richness of the data and supported the quantitative results (Fielding, 2012).

We conducted thematic coding of open-ended responses to understand how the course led to the participants' increased knowledge and behavior change related to the DSEP model. A team of reviewers analyzed all responses. Qualitative responses were coded and analyzed using MAXQDA for a Data Jam process to develop summarizations, initial theories, and visualizations (VERBI Software, 2017; Schmieder et al., 2018; Woolf & Silver, 2018). The Data Jam process is a structured collaborative analysis process that has proven useful for intercoder reliability (MacPhail et al., 2016; Sanders & Cuneo, 2010). Responses were coded into the DSEP model stages of service, education, management, and leadership. Additionally, we coded for increased program capacity. Emergent codes were applied when written responses did not fit into a pre-defined category.

Using Creswell and Plano Clark's (2017) methods, further validation of the quantitative items was confirmed as the research team found similar themes in the responses to the open-ended items for each set of questions.

LIMITATIONS

We used a retrospective evaluation which could lead to variance within the sample. The time span from when the respondents completed the course to the time when they completed the survey could be a limitation.

We recognize that there are limitations when interpreting the results. When course participants self-report, they rely on their perceptions at the point of evaluation. They may be under- or over-reporting their knowledge gained and behavior changed (Donaldson & Grant-Vallone, 2002). Another limitation could be the use of two descriptors in the pre-post survey statement, "Volunteers mostly teach and contribute only what is taught to them by Extension professionals." The interpretation of "teach" and "contribute" could vary within the same respondent. Future studies on

the DSEP model should consider separating these items to maximize the understanding, as originally outlined by Rutledge (2008).

RESULTS

The quantitative and qualitative data document the effectiveness of the DSEP model in engaging volunteers to expand Extension programs.

QUANTITATIVE RESULTS

The overall results found that course participants were progressing through the developmental stages after completing the AEMTV course (Table 5). Participants whose pre-course volunteer approach, for example, were in the "service or education" stage progressed into more advanced "management or leadership" stages of the DSEP model after completing the course.

To learn how the course affected participants' knowledge of the developmental stages and the application of that knowledge in their professional practice, each quantitative survey item was assessed using paired-sample non-parametric tests (Table 6). Specifically, each item was tested using the Wilcoxon Signed Ranks Test. This test is the equivalent of a paired sample t-test and is frequently used for understanding change in ordinal variables (Ross, 2017).

Confirming the practical significance of item frequencies, Wilcoxon Signed Ranks Tests (de Sandes-Guimaraes et al., 2023) found statistically significant differences for 10 of the 11 variables used to measure a participant's stage of working with volunteers before and after taking the AEMTV course. The results indicate that the course is an effective way to train Extension professionals to work more effectively with volunteers, ultimately improving the overall effectiveness of Extension programming (e.g., youth development, agriculture, family development, etc.).

The AEMTV course positively influenced participants to apply the DSEP model (Rutledge, 2008) as they worked with volunteers to build program capacity. We tested at the 95% confidence level. No statistical differences between demographic groups, disciplines, or states were found.

QUALITATIVE RESULTS

Our quantitative data showed that AEMTV course participants who adopted the DSEP model in their work shifted their role in working with volunteers. To further understand these shifts, we analyzed two open-ended questions by coding responses using each stage of the

Table 5. Frequency Findings – Extension Professionals' Progression through the DSEP Model - % Change (N=121)

Stage	Extension Professional's Role	Questions	Before		After	
			n	%	n	%
Service	*Servant*	Most aspects of the program are my responsibility.	96	80.0%	67	58.0%
Education	*Teacher*	I am comfortable letting others teach volunteers.	86	72.0%	109	90.0%
		Volunteers mostly teach and contribute only what is taught to them by Extension professionals.	43	35.5%	40	34.0%
Management	*Manager*	Volunteers are given responsibility by Extension professionals to lead or teach programs.	84	74.0%	111	95.0%
		I recruit others to deliver programs.	79	68.0%	115	95.0%
		I delegate tasks to volunteers so I do not have to be at every event/activity.	71	61.0%	116	96.0%
Leadership	*Leader*	Volunteers are involved in dialogue or decisions about the leadership of the program.	84	72.4 %	110	93.0%
		Volunteers perform nearly any role that an Extension professional would perform.	22	16.6%	48	39.0%
		Volunteers have responsibility for major parts of the program.	73	63.7%	97	83.5%
		I empower volunteers to take the lead on projects that interest them.	97	81.0%	121	100.0%
		I include volunteers in setting the vision for the program.	92	76.0%	115	95.0%

*% indicates responses of Agree and Strongly Agree.

Table 6. Pre-Course – Post-Course Changes for Developmental Stage Indicators (N=121)

Developmental Stage	Survey Item	Pre-Course		Post-Course			
		M	SD	M	SD	Z	Wilcoxon Signed Rank Test Probability
Leadership	I empower volunteers to take the lead on projects that interest them.	2.91	0.55	3.59	0.49	-8.15	<.001
Management	I recruit others to deliver programs.	2.71	0.68	3.36	0.58	-7.88	<.001
Leadership	I include volunteers in setting the vision for the program.	2.86	0.60	3.40	0.58	-7.41	<.001
Management	I delegate tasks to volunteers so I do not have to be at every event/activity.	2.61	0.68	3.40	0.57	-8.29	<.001
Service	Most aspects of the program are my responsibility.	2.98	0.68	2.60	0.73	-5.39	<.001
Education	I am comfortable letting others teach volunteers.	2.81	0.72	3.21	0.64	-6.59	<.001
Leadership	Volunteers are involved in dialogue or decisions about the leadership of the program.	2.79	0.68	3.26	0.56	-6.50	<.001
Education	Volunteers mostly teach and contribute only what is taught to them by Extension professionals.	2.34	0.62	2.31	0.60	-0.65	0.514
Management	Volunteers are given responsibility by Extension professionals to lead or teach programs.	2.84	0.69	3.30	0.59	-6.59	<.001
Leadership	Volunteers perform nearly any role that an Extension professional would perform.	1.93	0.72	2.34	0.82	-6.01	<.001
Leadership	Volunteers have responsibility for major parts of the program.	2.66	0.76	3.11	0.69	-6.09	<.001

*All items tested at 95% confidence level.

DSEP model. The qualitative results showed that Extension professionals who used the model improved their overall effectiveness in working with volunteers and illuminated how the DSEP model can be applied to the day-to-day practice of Extension professionals. Our data suggest that applying the DSEP model equips professionals to effectively utilize volunteers' skills to strengthen Extension programming.

TRIANGULATED RESULTS

We combined the qualitative and quantitative results for each stage to illustrate how participants applied the model to their work as they moved through the stages. Interpreting both qualitative and quantitative results together confirmed the DSEP model is an effective framework for Extension professionals to use to increase volunteer engagement.

After taking the AEMTV course, participants described a shift in their leadership, moving through the developmental stages of service, education, management, and leadership. Extension professionals differentiated their roles as they assessed situations and adjusted their leadership style to build program capacity with volunteers. This was documented in 56 coded qualitative responses. The majority of the responses focused on the specific DSEP stages and on shifts in behavior as a result of the course.

Six percent of the respondents (eight individuals with nine coded statements) wrote about their increased knowledge and understanding of the DSEP model. One Kansas participant described how they applied what they learned to their Extension work.

> Our county extension office began expanding our school enrichment and our out-of-school programs over the past couple of years. Because of my having taken this course, I have been able to greatly expand our out-of-school program by talking with program sites about their volunteers,

> and then utilizing their volunteers to assist or lead the 4-H programs using curriculum provided by me. Due to tips I learned in this course, I was able to design training programs, wherein I train the program site volunteers to understand Extension, the 4-H delivery model, and the curriculum specific to that youth serving organization site. Due to my having taken this course, our extension office's out-of-school programs have increased from just two other youth serving organizations, to multiple throughout the county. In just two years, my out-of-school 4-H youth have gained positive reputation and now so popular and in demand, that without volunteers to help and have major responsibility for major parts of the program, then these programs would not be possible. Thanks to this course, I've been empowered and my volunteers have been empowered to continue to work toward fulfilling the 4-H mission.

Qualitative data documented that relationship building is fundamental throughout all stages of the DSEP model. A Minnesota participant shared their knowledge gained around building relationships and empowering volunteers.

> This course has great tools for learning how to work with volunteers. It teaches you how to approach volunteers for special things and how to assist volunteers that have ideas of their own and letting them lead with it. One thing that needs to emphasized *[sic]* though is that it takes time to get to that place with your volunteers. It takes a long time to build relationships and trust with those individuals.

SERVICE STAGE

Quantitative results (Table 6) reflected significant behavior change in professionals' ability to move out of the service stage. Respondents reported a shift from taking responsibility for most aspects of their program to building program capacity by recruiting, delegating to, and empowering volunteers. There was only one qualitative response for this stage. One Maine participant described how they could not move out of the service stage.

> The volunteers in my county for the most part that I work with do not want to take the lead; they want to support things happening. And actually, for me to push them taking the lead would mean they'd leave... So although I understand that is the goal, it is not feasible, at least where I am. And furthermore, I don't agree that volunteers can perform nearly any role extension professionals can, in that I do not think that it is fair to ask volunteers to do all that we do. Perhaps if someone wanted to focus on social media, they could, but I would not ask or expect a volunteer to plan a program, and fundraise, and market, etc.

EDUCATION STAGE

Significant behavior change (Table 6) confirmed professionals' ability to empower volunteers to teach and lead programs. There were no qualitative responses from course participants for this stage. Since the survey was completed one to four years after course participation, we believe participants' examples reflected how they had already moved through the service and education stages to the management and leadership stages. Participants' responses focused on how they worked with volunteers differently or how they had empowered volunteers, which reflected a higher application of the DSEP model.

MANAGEMENT STAGE

Course participation had a significant positive influence on professionals' ability to empower volunteers to lead projects, delegate tasks so they do not have to attend all activities, and to feel comfortable allowing others to lead and teach (Table 6). These are indicators of professionals operating in the management stage. The qualitative analysis confirmed this finding. One-third of the respondents (45 individuals with 48 coded statements) acknowledged a shift in their practice due to participation in the course. They shared examples of how they empowered volunteers to plan and lead projects while they provided support and guidance. One Extension professional from Vermont stated,

> I have allowed myself to back off when a volunteer clearly has more expertise and leadership to run an event. It has been great to sit back and let them excel and feel the success. I do not always have to be in charge of everything." One Minnesota professional stated, "My ambassador group was led entirely by me. I empowered my ambassadors to recruit and ask for volunteers to serve as assistant(s) leaders. We now have two assistants in addition to myself, working on giving them more responsibility.

LEADERSHIP STAGE

The quantitative findings (Table 6) were significant for the leadership stage. Confirming this quantitative result, twenty-three professionals described how they engaged volunteers in dialogue, set future direction, and established the program's vision. One professional from Nebraska stated, "I moved from our staff taking leadership of our food stand at the county fair to it being entirely volunteer led." One North Dakota participant stated, "Now, I give myself permission to

step back to allow others to lead. I used to feel guilty because I thought it was my job alone to lead." Another Wisconsin respondent indicated a role shift, stating:

> We focus on citizen science programming, so I've made more efforts to empower volunteers to design their own projects based on questions relevant to their roles as citizen scientists rather than employing a top-down protocol for what data to collect and how to collect it. I have new officers for the Master Gardener Chapter who feel empowered to move the Chapter forward. They have created a survey of the needs of their members and are trying their best to meet those needs. The officers now meet on a regular basis.

These examples illustrate capacity building as professionals identify ways to expand their Extension programs in content, audiences, and quality. The leader builds a team of stakeholders that sets the vision and direction, creating opportunities for others to buy into the vision, so the work does not have to be carried out independently.

INCREASED PROGRAM CAPACITY

Forty percent (51 participants) learned strategies which influenced their ability to increase programs in their communities. Each stage of the DSEP model, from empowering volunteers to including volunteers in vision setting, was used by professionals. One Michigan participant shared, "I have asked certain volunteers to plan an event without my presence." One Kansas professional described how program capacity increased:

> Because of… this course, I have been able to greatly expand our out-of-school program by talking with program sites about their volunteers, and then utilizing their volunteers to assist or lead the 4-H programs using curriculum provided by me… Due to my having taken this course… out-of-school programs have increased… to multiple throughout the county. In just two years, my out-of-school 4-H youth programs have gained positive reputation… and in demand, that without volunteers to help and have major responsibility… then these programs would not be possible… I've been empowered, and my volunteers have been empowered.

DISCUSSION AND CONCLUSION

Volunteers are vital to extending the reach of Extension programming. When Extension professionals are trained to use the DSEP model as a conceptual framework, Extension's overall program capacity increases through volunteer engagement. Our data support the concept that intentional leadership can positively impact, motivate, energize, and retain volunteers (Almas et al., 2020). The high levels of change evident in the evaluation of the course suggest that Extension would benefit from including the DSEP model in training Extension employees who work with volunteers.

Volunteer engagement is a core competency required by many Extension professionals. The results of this evaluation show how a high-quality professional development curriculum that includes the DSEP model bolsters Extension professionals' ability to work more effectively with volunteers. The DSEP stages apply relational and situational leadership to create a model that professionals can utilize in volunteer systems. By helping employees understand the difference between the service, education, management, and leadership stages, Extension professionals can move out of the service and education stages into the management and leadership stages. They must be coached to apply this model in volunteer systems to empower volunteers to lead, teach, and implement programs; contribute to the program's vision; and assume key roles in decision making for the program. Volunteers can transfer the skills gained through Extension leadership roles to the communities where they live and work (O'Neil et al., 2021).

Extension professionals often get stuck in the service and education stages. Those who do not move out of these two stages may leave Extension or burn out. Yet, when employees use the DSEP model to assess how they work with volunteers, they have the potential to grow program capacity. Employees, regardless of years of experience or program area, find this model to be effective.

The DSEP model continues to be a foundational component of the AEMTV course. The course is offered each year for Extension professionals nationwide. Annual course evaluations confirm how using the DSEP model continues to influence participants' work with volunteers. Course content related to the DSEP model was updated using these study results.

Through the data we analyzed, professionals' roles in applying the DSEP model to increase program capacity with volunteers were identified. Understanding the purpose of each stage is necessary; utilization of the DSEP model is situational. Professionals can assume the role of servant, educator, manager, or leader, depending on what is needed to move the program forward. Professionals may be at different stages with each volunteer group in the program. They need to continue to reassess each situation to identify and operationalize the appropriate stage. The stage selected is dependent on volunteer and Extension professional readiness.

SERVICE

Service is the first stage and is fundamental in relationship building. This is where Extension professionals develop their

understanding and skills, which give them the confidence to step aside, empowering volunteers to take the lead. Extension professionals and supervisors must be aware of this stage and how it can limit both employee and volunteer growth. Reluctance to move out of the service stage limits their professional development and program capacity, resulting in career burnout (Rutledge, 2008).

EDUCATION

In the education stage, volunteers learn and share what they are taught by the Extension educator (Rutledge, 2008). Extension professionals must demonstrate growth by delegating the teaching responsibilities to volunteers for educational programs. When volunteers are not allowed to use their expertise, program capacity is limited. When employees identify volunteers who can teach programs, programming opportunities can be expanded and relationships with volunteers can be strengthened. Volunteers are viewed as resources.

MANAGEMENT

Extension professionals in the management stage see a noticeable growth in program capacity through increased volunteer engagement (Cassill et al., 2012; Rutledge, 2008). To advance to this stage, professionals may need to move out of their comfort zone to identify and empower volunteers to take on projects that interest them and benefit the program. This shift increases program offerings and builds skills and confidence in volunteers while the professional focuses on expanding other parts of the program. An important step is scheduling time to speak with volunteers about the program for which they are going to assume more leadership and clarifying the expectations of their role. It is also important to have regular communication with volunteers.

LEADERSHIP

Extension programs benefit when professionals reach the leadership level of volunteer engagement. Professionals at this stage do not see limits to the potential of the program and continue to look for innovative ways to accomplish goals. They empower other professionals or volunteers to share the load with collaborators (Washburn, 2020). Those involved appreciate the new leadership opportunities (Grant et al., 2020). Professionals can select and apply the four stages and use the skills necessary for each situation to benefit their communities (Rutledge, 2008). As employees identify and work with volunteers in this stage, it is important to continue to communicate and create opportunities for volunteers to share the impact of the programs they are working on in the community. This is when volunteers in this role may report to stakeholders in the community about program impact.

This evaluative study confirms the DSEP model, which evolved through field research and grounded theory, prepares professionals across disciplines to work with volunteers to implement and expand Extension programs. Application of this model:

- Strengthens volunteer systems,
- Builds program capacity through engaged volunteers, and
- Increases professionals' productivity.

Rutledge's (2008) conceptual framework provides a structure for professionals to strengthen Extension programming with volunteers through the DSEP model. Course participants describe how applying the model with volunteers increases the reach of the program. They articulate how the DSEP model is effective in volunteer system management practices. This research is the first formal evaluation of the DSEP model, documenting the utilization and effectiveness of the DSEP model among AEMTV survey participants.

Professionals who use the DSEP model shift their leadership practice to give volunteers responsibility to teach programs, engage volunteers in dialogue and program decisions, and empower volunteers to lead major programming efforts.

Our research demonstrates that the DSEP model must be a core competency for Extension professionals. Training focused on the DSEP model and transformational leadership is necessary to prepare professionals to manage volunteer systems, leading to increased program capacity.

IMPLICATIONS AND RECOMMENDATIONS

We recommend future research using this instrument to better understand the adoption of the DSEP model and how it affects Extension programs. The reliability of the measures used in the survey indicates a promising evaluation tool (moderately reliable Cronbach's alpha for the major DSEP constructs), that can be applied to improve Extension professionals' practice.

While our research focused on Extension professionals, we recommend the DSEP model to be utilized within other organizations that work with volunteers. We also encourage future studies to include qualitative data to support the depth of adoption and help further understand how the model improves professionals' work and impact with volunteers.

REFERENCES

Allred, S. B., Goff, G. R., Wetzel, L. P., & Luo, M. K. (2011). Evaluating peer impacts of a master forest owner volunteer program. *Journal of Extension*, *49*(5). https://tigerprints.clemson.edu/joe/vol49/iss5/19

Almas, S., Chacón-Fuertes, F., & Pérez-Muñoz, A. (2020). Direct and indirect effects of transformational leadership on volunteers' intention to remain at non-profit organizations. *Psychosocial Intervention*, *29*(3), 125–132. https://doi.org/10.5093/pi2020a17

Bass, B. M., & Avolio, B. J. (1990). Developing transformational leadership: 1992 and beyond. *Journal of European Industrial Training, 14*(5). https://doi.org/10.1108/03090599010135122

Benge, M., Muscato, A. F., & Beattie, P. N. (2020). Professional development needs of early-career extension agents beyond the first year: Florida county Extension director perspectives. *The Journal of Extension*, *58*(6). https://doi.org/10.34068/joe.58.06.11

Bernardi, R. A. (1994). Validating research results when Cronbach's alpha is below 70: A methodological procedure. *Educational and Psychological Measurement*, *54*(3), 766–775. https://doi.org/10.1177/0013164494054003023

Bonett, D. G., & Wright, TA. (2015). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. *Journal of Organizational Behavior 36(1), 3–15*. https://doi.org/10.1002/job.1960

Boyce, M.V. (1971). *A systematic approach to leadership development*. Washington D.C.; USDA, Extension Service. (ERIC Document Reproduction Service No. ED 065 763).

Boyd, B. L. (2003). Competencies for volunteer administrators for the coming decade: A national Delphi study. *Journal of Agricultural Education*, *44*(4), 47–56. http://doi.org/10.5032/jae.2003.04047

Brodeur, C. W., Higgins, C., Galindo-Gonzalez, S., Craig, D. D., & Haile, T. (2011). Designing a competency-based new county extension personnel training program: A novel approach. *Journal of Extension*, *49*(3), 1–16. https://tigerprints.clemson.edu/cgi/viewcontent.cgi?article=3083&context=joe

Bruns, K., & Franz, N. (2015). Cooperative Extension program development and the community-university engagement movement: Perspectives from two lifelong Extension professionals. *Journal of Human Sciences and Extension, 3*(2), 156–169. http://lib.dr.iastate.edu/edu_pubs/11

Cassill, H., Culp III, K., Hettmansperger, J., Stillwell, M., & Sublett, A. (2012). Volunteer middle managers: Human resources that extend programmatic outreach. *Journal of Extension*, *50*(5). https://tigerprints.clemson.edu/joe/vol50/iss2/41/

Cummings. T. G. & Worley, C. G. (2015). *Organizational Development and Change* (10th ed.) South-Western Cengage Learning.

Creswell, J. W., & Plano Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. SAGE.

Culp, K., III. (2012). Overview of the GEMS model of volunteer administration (generate, educate, mobilize, and sustain). *Journal of Extension, 50*(6). https://tigerprints.clemson.edu/joe/vol50/iss6/28/

de Sandes-Guimarães, L.V., dos Santos, P.C., Alves, C.P.G.P., Cervato, C.J., Silva, A.P.AS., & Leão, E.R. (2023). The effect of volunteer-led activities on the quality of life of volunteers, residents, and employees of a long-term care institution: a cohort study. *BMC Geriatrics 23(*151), 1–9. https://doi.org/10.1186/s12877–023–03898-y

Dillman, D. A. (2007). *Mail and internet surveys: The tailored design method* (2nd ed.) John Wiley & Sons, Inc.

Dolan, R. J. (1969). *The leadership development process in complex organizations.* North Carolina State University.

Donaldson, S. I., & Grant-Vallone, E. J. (2002). Understanding self-report bias in organizational behavior research. *Journal of Business and Psychology*, *17*(2), 245–260. https://doi.org/10.1023/A:1019637632584

Elliott-Engel, J., Westfall-Rudd, D. M., Seibel, M. M., Kaufman, E. K., & Radhakrishna, R. (2021). Extension administrators' perspectives on employee competencies and characteristics. *Journal of Extension*, *59*(3). https://doi.org/10.34068/joe.59.03.03

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. SAGE Publications.

Fielding N. G. (2012). Triangulation and mixed methods designs: Data integration with new research technologies. *Journal of Mixed Methods Research*, *6*(2), 124–136. https://doi.org/10.1177/1558689812437101

Franz, N. K. (2015). Programming for the public good: Ensuring public value through the Cooperative Extension program development model. *Journal of Human Sciences and Extension*, *3*(2), 13–25. https://doi.org/10.54718/YCFQ8890

Grant, S.B., Maass, S., Vettern, R., Harrington, R., O'Neil, K., McGlaughlin, P., Good, T. (2020). The impact of volunteering: A multi-state study of 4-H youth development volunteers. *Journal of Youth Development*, *15*(4), 32–50. https://doi.org/10.5195/jyd.2020.870

Groves, R. M., Fowler Jr, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). *Survey methodology* (Vol. 561). John Wiley & Sons.

Hager, M. A., & Brudney, J. L. (2015). In search of strategy: Universalistic, contingent, and configuration adoption of volunteer management practices. *Nonprofit Management Leadership, 25*(3), 235–254. https://doi.org/10.1002/nml.21123

Hersey, P., & Blanchard, K. (1988). *Management of organizational behavior: Utilizing human resources* (5th ed.). Prentice-Hall, Incorporated.

Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. *Journal of Applied*

Psychology, *89*(1), 36. https://doi.org/10.1037/0021–9010.89.1.36

Kaslon, L., Conner, N. W., Matkin, G., Balschweid, M., & Hibberd, C. (2023). A case study on the transfer of training as influenced by perceptions of self-leadership by extension professionals. *Journal of Human Sciences and Extension*, *11*(3), 1–19. https://doi.org/10.55533/2325–5226.1445

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.

Lockett, L. L., & Boyd, B. (2012). Enhancing leadership skills in volunteers. *Journal of Leadership Education*, *11*(1), 233–244. https://doi.org/10.12806/V11/I1/AB2

Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature. *The Leadership Quarterly*, *7*(3), 385–425. https://doi.org/10.1016/S1048–9843(96)90027–2

MacPhail, C., Khoza, N., Abler, L., & Ranganathan, M. (2016). Process guidelines for establishing intercoder reliability in qualitative studies. *Qualitative research*, *16*(2), 198–212.

Merriam, S. B., & Grenier, R. S. (Eds.). (2019). *Qualitative research in practice: Examples for discussion and analysis*. John Wiley & Sons.

Nevo, B. (1985). Face validity revisited. *Journal of Educational Measurement, 22*(4), 287–293. https://doi.org/10.1111/j.1745–3984.1985.tb01065.x

North Central Region Volunteer Development (2021). *Achieving the Extension mission through volunteers courses*. https://fyi.extension.wisc.edu/ncrvd/achieving-the-extension-mission-through-volunteers-course/

Norze, J., & Cater, M. (2020). A systematic review of program quality in the field of positive youth development. *Advances in Sciences and Humanities 6*(2), 58–69. http://doi:org/10.11648/j.ash.20200602.12

O'Neil, K., Vettern, R., McGlaughlin, P., Harrington, R., Maass, S., Grant, S., & Good, T., (2021). How volunteering with Extension 4-H youth development contributes to public value. *Community Development*, *52*(4), 505–521.https://doi.org/10.1080/15575330.2021.1889630

O'Neil, K., Vettern, R., Maass, S., Harrington, R., Robideau, K., McGlaughlin, P., & Gauley, J. (2023). Equipping Extension professionals to lead volunteer systems: An evaluation of an online course. *Journal of Human Sciences and Extension*, *11*(3), 13. https://doi.org/10.55533/2325–5226.1348

Perry, R. H., Charlotte, B., Isabella, M., & Bob, C. S. (2004). *SPSS explained*. Taylor and Francis.

Rose, P. (2010). Transformational leadership and its relationship to adult 4-H volunteers' sense of empowerment in youth development settings. *Journal of Leadership Education, 9*(2). https://doi.org/10.12806/V9/I2/RF5

Ross, S. M. (2017). *Introductory statistics*. Academic Press.

Rossman, G. B., & Rallis, S. F. (2003). Qualitative research as learning. *Learning in the field: An introduction to qualitative research,* 1–30. SAGE Publications.

Rutledge, J. (2008). *Narrative of developmental stages of the extension professional.* AEMTV Course Binder.

Rutledge, J. (2017). *The developmental stages of an extension professional model.* AEMTV Course Binder.

Rutledge, J. (2021). *Interview with NCR Volunteer Specialists' Research team on the Developmental Stages of the Extension Professional Model.* Personal communication.

Sanders, C. B., & Cuneo, C. J. (2010). Social reliability in qualitative team research. *Sociology*, *44*(2), 325–343.

Schmieder, C., Caldwell, K.E.H., & Bechtol, E. (2018). Readying Extension for the systematic analysis of large qualitative data sets. *Journal of Extension, 56*(6). https://archives.joe.org/joe/2018october/pdf/JOE_v56_6a2.pdf

Schwertz, C. (1978). Volunteers as middle managers. *Journal of Extension*, *16*, 23–29. https://archives.joe.org/joe/1978november/78–6-a5.pdf

Snider, A. (1985). The dynamic tension: Professionals and volunteers. *Journal of Extension*, *23*(3). https://archives.joe.org/joe/1985fall/sa2.php

StataCorp (2015). *Stata statistical software: Release 14*. [Computer software]. StataCorp.

Stoecker, R., & Avila, E. (2020). From mixed methods to strategic research design. *International Journal of Social Research Methodology*, *24*(6), 627–640. https://doi.org/10.1080/13645579.2020.1799639

Van Den Berg, H. A., & Dann, S. L. (2008). Evaluation of an adult Extension education initiative: The Michigan conservation stewards program. *Journal of Extension*, *46*(2), Article 11. https://tigerprints.clemson.edu/joe/vol46/iss2/11

VERBI Software (2017). *MAXQDA 2018* [Computer software]. VERBI Software. https://maxqda.com

Washburn, L.T., Cocker, A.B., & Leatherman, J. (2020). From territorial to transformational: A new framework for master volunteer engagement. *Journal of Extension, 58*(4), Article 27. https://tigerprints.clemson.edu/joe/vol58/iss4/27/

Woolf, N. & Silver, C. (2018). *Qualitative Analysis Using MAXQDA: The Five-Level QDA® Method*. Routledge.

Worker, S. M., Espinoza, D. M., Mun Kok, C., Go, C., & Miller, J. C. (2020). Volunteer outcomes and impact: The contributions and consequences of volunteering in 4-H. *Journal of Youth Development,* 15(4). https://doi.org/10.5195/jyd.2020.847