Volunteerism permeates many areas of American life. Volunteers contribute substantially to the educational programming and effectiveness of the Cooperative Extension Service. The Florida Association for Family and Community Education (FAFCE) is a volunteer group that works with the Family and Consumer Science program area of the Florida Cooperative Extension Service. Currently, there are approximately 3200 FAFCE volunteers in the state of Florida, and their number is declining annually. Extension agents work closely with these volunteers, yet they receive little formal training on volunteerism. A research study was conducted to explore the demographic characteristics and learning styles of these volunteers.

Three of the five Florida Cooperative Extension districts in the state of Florida participated in this study. A demographic questionnaire and a learning styles assessment test were administered to volunteers attending meetings in January to April, 1999. Two hundred seventy-four FAFCE volunteers participated in this study. The mean age of these FAFCE volunteers was 71 years of age, with a range from 49 to 90 years of age. The majority of the volunteers were Caucasian females. Slightly under one-half (42%) of volunteers reported they have received some form of professional development as a FAFCE volunteer. As a group FAFCE volunteers were field dependent. The median GEFT score for FAFCE volunteers was 2.0, with GEFT scores ranging from 0 to 18.

Findings from this study provided useful insight and baseline data on the FAFCE volunteer program. Professional development for agents and state specialists should include a variety of instructional strategies and techniques to ensure successful transition of information, thereby meeting the preferred learning needs of all participants.
Introduction/Theoretical Framework

Volunteers are used in all areas of extension, including Family and Consumer Science, 4-H, Horticulture and Agriculture, with the majority of volunteers working in the 4-H youth development program area. Florida county extension agents and state extension specialists work directly with volunteers and are responsible for a myriad of volunteer training and management programs. Therefore, an effective volunteer management-training program needs to address both principles of volunteer management and how to effectively deliver instruction or educate clientele.

Snow and Yallow (1982) note that the success of education is dependent on the adaptation of teaching to the learning differences among learners. Effective transition of information from the extension agent and/or specialist to the volunteer is necessary for a successful program.

Over the years, researchers of volunteerism have come up with some core competencies necessary to ensure a successful volunteer program. From these core competencies and theories, certain individuals have developed models for implementing a successful volunteer program. One of the main components of volunteerism is orientation and training (Brudney, 1990; Campbell & Ellis, 1995; Naylor, 1973; Rauner, 1980; Scheier, 1985; Vinyard, 1981; Wilson, 1976).

Brudney (1990) feels that volunteers need training and supervision in order to do their job effectively. Training gives volunteers the skills and knowledge needed to perform their work well and effectively (Wilson, 1976). Wilson (1976) is of the belief that orientation is only the beginning of training for the volunteer, although too many agencies think that orientation is the only training needed for volunteers. Rauner (1980) describes three types of training for the volunteer: pre-service, or orientation training, prepares the volunteer to begin the job; in-service training provides for a better understanding of the scope of their job; and continuing education includes training not related to a specific subject or job. Training for volunteer leaders will allow them to increase their skills, and in turn, offer more potent training to the volunteers (Rauner, 1980). It is important that volunteers receive effective training because poor training can harm the organization by decreased productivity in volunteers, a possible loss of volunteers, and by decreasing the image of the organization (Naylor, 1973).

Naylor (1973) notes that traditionally, training primarily included instruction solely on skills necessary to perform the specific task or job, but educators have disagreed, as this type of training lacks in providing for individual volunteer learning needs. It is important to break down the content information into teachable parts, so the volunteers are able to comprehend all aspects of the training. To successfully do this skilled trainers need to utilize a variety of teaching techniques and methods in training (Naylor, 1973).

If learning is a positive experience, then an individual strives to learn more, as they are motivated to further their learning. Research shows that knowing about yourself
and your audience will help you in your teaching and working with others. Learning styles are “characteristic cognitive, affective and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with and respond to the learning environment” (Keefe, 1987, p. 4). This supports the premise that educators should select a variety of strategies to assist the learning styles of the audience. This will result in a multifaceted and effective program that will appeal to more than one learning style at a time (Sarasin, 1998). The Ontario Ministry of Agriculture, Food and Rural Affairs (2000) note that it is important to match the learning styles of volunteers with appropriate training methods in the volunteer management process.

Boone (1985) feels that appropriate methods, experiences, and materials must be selected when implementing a planned program. “Learning theory, as it may apply to adult learners, is basic to the choice of learning materials and methods” (Boone, 1985, p. 234). This emphasized the need to match certain learning technologies to the needs and socio-cultural characteristics of the audience.

In the 1940s, Witkin initiated research on cognitive style with studying the perceptions of individuals in different spatial orientations. He unexpectedly found that people differed by how they use orientation tasks (Witkin & Goodenough, 1981). Witkin (1976) later characterized these perceptual characteristics among individuals as field dependent or field independent. His basic premise is that individuals differ in their learning styles and individuals tend to teach according to their learning style. By recognizing these differences in learning styles, one can adapt their instruction to meet the needs of all learners (Witkin et al., 1971). Field dependent learners are global learners who prefer structured educational settings. They tend to have highly developed social skills and are aware of their social environment (Garger & Guild, 1984). Field independent learners are more likely to be analytical and perceptual learners who prefer to structure their own educational settings. They may have less developed social skills and are interested in concept attainment, with the ability to distinguish differences among concepts (Garger & Guild, 1984).

Witkin et al. (1971) found consistent gender differences by field dependence, with women tending to be more field dependent than men. This is supported by many research studies (Cairns, Malone, Johnston, & Cammock, 1985; DeRussey & Futch, 1971; Morf, Kavanaugh, & McConville, 1971; Parlee & Rajogopal, 1974; Saarni, 1973; Sherman, 1974; Takigami, 1975). However, current research by Rudd, Baker and Hoover (1998) and Baker, Rudd, Hoover and Grant (1997) dispute this finding. Demick (1991) believes further study is needed in this area, due to the argument that many of these studies supporting gender differences by field dependence show only a low statistically significant effect.

There is some evidence of a relationship between age and field dependence. Comalli (1965) and Schwartz and Karp (1967) found that older aged individuals tended to be more field dependent. After the late 30s, individuals tend to lean toward field dependence (Comalli, 1965; Schwartz & Karp, 1967).
Recent research disputes this finding (Panek, 1985; and Takigami, 1975). Panek (1982) who utilized the GEFT and a personality test on women age 60-81 suggests increasing age may have an effect on personality relationships. Knox (1981) notes that the transfer of learning tends to decline with age.

Baker et al. (1997) found that the Extension professionals tended to be field dependent learners. The researchers recommended that any training delivered to this group include techniques to appeal to field dependent learners such as the opportunity for social exchange, and a structured learning environment (Baker et al., 1997).

Because Florida Extension volunteers make such an impact on the state of Florida, it is imperative that volunteers are successfully delivering their educational programs. This reinforces the need to provide volunteers with instructional techniques and teaching strategies. Snow and Yallow (1982) note that the success of education is dependent on the adaptation of teaching to the learning differences among learners. Therefore, an effective volunteer management-training program not only should address the principles of volunteer management but also how to effectively educate clientele.

**Purpose and Objectives**

The purpose of this study was to determine learning styles of FAFCE volunteers with the ultimate goal of sharing results and providing instructional methodology recommendations to agents and state specialists for inclusion in volunteer training. The objectives were to do the following: 1) Determine the demographic characteristics of FAFCE volunteers, 2) Identify current informal and formal volunteer training programs for FAFCE volunteers and, 3) Determine the learning styles of FAFCE volunteers.

**Methodology**

**Population**

The sample for this study consisted of a select group of Florida Association for Family and Community Education (FAFCE) volunteers in the state of Florida, along with the county extension agents that work with FAFCE volunteers. There are approximately 3,200 FAFCE volunteers in the state of Florida located throughout five regional districts. A purposeful sample of volunteers and agents was taken from those attending Districts II, III and IV meetings. The findings of this study are limited to the FAFCE volunteer who participated in this study. Additionally, FAFCE volunteers who participated in the study represented individuals who were motivated to attend District II, III and IV meetings during 1999. The total sample for this study was 274 FAFCE volunteers. Two survey instruments were utilized for the study, a researcher developed questionnaire and the Group Embedded Figures Test (GEFT) (Witkin et al., 1971). The researcher-developed questionnaire was used to collect demographic information pertaining to FAFCE volunteers. The GEFT was used to determine the learning styles of the FAFCE volunteers in the study. Faculty in Agricultural Education and Communication and Program Development and Evaluation reviewed the researcher-developed instrument for content and face validity.
Learning styles were measured by the GEFT (Witkin et al., 1971). The GEFT was designed to allow for a large number of individuals to be tested in one testing session (Witkin et al., 1971). The national mean score for the GEFT is 11.4, with those scoring below 11.4 considered field-dependent, while those scoring above 11.4 considered field-independent (Witkin, et al, 1971). The GEFT was based upon the Embedded Figures Test (EFT); the EFT reliability estimates are favorable with a reported reliability coefficient of .82 for both males and females (Witkin, et al, 1971).

Data Collection

Data were analyzed using the Statistical Package for the Social Sciences for Windows Release 9.0 (SPSS®, 1999). Percentages and frequencies were calculated to develop a descriptive profile of the population. GEFT scores were measured with age of the selected sample through bivariate correlation.

Results/Findings

RESULTS

Demographic Characteristics of FAFCE Volunteers

Two hundred seventy four FAFCE volunteers participated in this study. An additional 34 individuals completed the survey and reported their role as something other than an FAFCE volunteer or extension agent, these individuals were not included in the analysis.

Eighty-seven percent (87.2%) of FAFCE volunteer respondents were female, while 7% were male and 12% did not select a gender. Nine out of ten (90%) volunteer respondents were Caucasian/White, 6% were African American, and 4% were Native American. One individual in the study was Hispanic, one individual was West Indian, and one individual did not respond.

The mean age of these FAFCE volunteers was 71 years of age, with a range from 49 to 90 years of age. Twenty-four volunteers failed to report their age.

Individuals in the sample were asked to identify their educational level. Of the 268 volunteers that responded to the question, “Please indicate your highest degree completed,” 6% said some high school, 44% had a high school degree, 31% attended some college, 3% had earned an associates degree, 8% earned a bachelors degree, and 6% of volunteers surveyed had a graduate degree.

FAFCE volunteers and extension agents involved in the study represented three of the five extension districts in the state of Florida: Districts II, IV, and V. The FAFCE volunteers in the study represented 24 of the 67 counties in Florida.
Volunteers and Extension Agents: Current Informal and Formal Volunteer Training Programs for FAFCE Volunteers and Extension Agents

The FAFCE volunteers were asked, "Have you received training as a member of FAFCE?" Just under half (42%) of volunteers reported they have received training. Twenty-percent of the volunteers did not respond to this question. Those that participated in training noted they participated in a variety of trainings (10%), leadership training (8%), educational/specific topic training (7%), Family Community Leadership (FCL) (6%), officer training (3%), monthly training (1%), working with youth (1%), and county level training was mentioned by one participant.

Respondents were asked to report the individual or group who hosted the training. Sixty-five percent of FAFCE volunteers did not respond to this question. Twenty percent of training was reported as given by county level agents (19%). Other trainers included FAFCE member (4%), University of Florida (3%), a variety of trainers (3%), state specialists (2%), leader trainer (2%), FCL staff (1%), and volunteers (1%). The following trainers were also mentioned: club president, community leaders, and both national and state officers.

Learning Styles of FAFCE Volunteers and Extension Agents

As a group FAFCE volunteers were field dependent. The median GEFT score for FAFCE volunteers was 2.0, with GEFT scores ranged from 0 to 18 (Table 1).

Table 1. GEFT Scores for FAFCE Volunteers

<table>
<thead>
<tr>
<th>FAFCE Volunteers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean score</td>
<td>2.84</td>
</tr>
<tr>
<td>SD</td>
<td>3.08</td>
</tr>
<tr>
<td>Median</td>
<td>2</td>
</tr>
<tr>
<td>Minimum</td>
<td>.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>18</td>
</tr>
</tbody>
</table>

Correlational analyses were conducted with the variables of GEFT score and age. The correlation for the dependent variable, GEFT score, with the independent variable, age, can be observed in Table 2. A significant low negative correlation was found between age and GEFT score ($r = -.17$, $p = .008$). Two additional correlations were run to see if the age of volunteer above and below the mean age could predict GEFT scores.
FAFCE volunteers were separated into two groups for this analysis. There were no significant correlations between age and GEFT score for FAFCE volunteers who were 71 years of age and younger (n=108), and those above 71 years of age (n=132).

Table 2. Correlation for the Dependent Variable, GEFT Score and the Independent Variable, Age, Age < 71 and Age > 71

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Correlation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>240</td>
<td>-.17*</td>
<td>.008</td>
</tr>
<tr>
<td>Age ≤ 71</td>
<td>108</td>
<td>-.02</td>
<td>.818</td>
</tr>
<tr>
<td>Age &gt; 71</td>
<td>132</td>
<td>-.14</td>
<td>.121</td>
</tr>
</tbody>
</table>

*Significant at p<.01
† Pearson product moment correlation

Conclusions

Results of the demographic portion of the survey indicate that the majority of the FAFCE volunteers were Caucasian, females with an average age of 71 years. Most of the volunteers do not work outside the home (92%). Almost half of the volunteers earned a high school degree, and almost one-third attended some college.

Forty-two percent (42%) of volunteers noted they received training as a member of FAFCE. Major training received included: a variety of training (10%), leadership training (8%), educational/specific topic training (7%), and Family Community Leadership (6%). The most significant responses to the individual responsible for the training include county extension agents (19%), Family and Consumer Educator (4%), University of Florida (3%), a variety of trainers (3%), state specialists (2%), and leader trainer (2%). Brudney (1990) believes that training coordinates the motives and needs of the volunteers, the organization, and clientele. Naylor (1973) notes that lack of training can decrease productivity in volunteers, decrease the image of the organization, and the organization can lose volunteers as a result. Not only is it important to provide current technical content to volunteers, it is equally important that trainers use a number of methods and teaching techniques in training (Naylor, 1973).

The assessment of learning styles indicated that the median GEFT score of FAFCE volunteers was 2.0. This indicates that FAFCE volunteers field dependent learners. There was a low negative correlation (r = -.171, p = .008), between age and GEFT score for FAFCE volunteers. As age increases, scores go down. The direction of the relationship is consistent with literature; however, the relationship observed is very weak and does not explain a great deal of variation in the model. The findings of this
study do not contribute substantially to the research by (Comalli, 1965; Schwartz & Karp, 1967) that show as individuals’ age, they tend to exhibit increasing field dependence.

The majority of individuals in this study were field dependent women, which supports the research that shows a relationship between field dependence and gender (Cairns, et al., 1985; DeRussey & Futch, 1971; Morf, et al., 1971; Parlee & Rajogopal, 1974; Saarni, 1973; Sherman, 1974; Takigami, 1975). However, an equivalent comparison group of males was not available for analysis. Therefore, we can not attribute the field dependence of the group solely on gender.

Implications

The results of this study affect FAFCE volunteers, extension agents, state specialists, and the Florida Cooperative Extension Service. The findings of this study suggest specific volunteer leadership and training issues that should be addressed in relation to FAFCE.

Orientation and Training

For example, less than half of FAFCE volunteers (42%) reported they received training, and 20% did not even respond to this question. For volunteers to carry out the mission, handle subject matter, and educate individuals in the community, they must receive adequate training. Efforts should be made to increase training and workshops for FAFCE volunteers. This reaffirms the need and rationale that FAFCE volunteers are a viable constituent group that should be served by UF/IFAS, Florida Cooperative Extension Service faculty, both at the county and state level. There is a continued need for agents to deliver educational programs and training to volunteers. Agents must be conscientious and understanding of learning styles in an effort to deliver effective programs.

Given the value and importance of FAFCE volunteers representing UF/IFAS Florida Cooperative Extension Service, the effort and input focused on professional development for volunteers can enhance their effectiveness in delivering programs to the clients in the state of Florida. Therefore, it is imperative to offer professional development to both our state specialists and agents and subsequently our volunteers, in an effort to deliver effective programs to the state of Florida. Witkin (1976) notes that individuals differ in their learning styles and they tend to teach according to their learning style. By recognizing these differences in learning styles, one can adapt their instruction to meet the needs of all learners.

Additionally, training regarding instruction, including how to recognize differences in learning styles should be addressed, as these volunteers in turn educate and teach in their communities. It is vital for them to understand and appreciate different learning styles and for them to utilize a variety of teaching methods in their volunteer programs. By accommodating the unique learning styles of all learners, this will greatly increase the successful transfer of information.
This effort will provide volunteers, county faculty, and state specialists with a variety of instructional strategies and guidelines for program delivery. The ultimate goal is to make the volunteers better educators and trainers within their communities and consequently enhance the effectiveness and image of UF/IFAS. Boone (1985) states that volunteers should not be overlooked because volunteers are representatives of the organization that can acquire and disseminate information to the public, and they extend the resources available to the organization.

References


