

Extension Education Methods

Reasons for Becoming Involved as a Master Gardener

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SUMMARY. Current and former Missouri Master Gardeners were asked to respond to each of 30 reasons (an adaptation of the Volunteer Functions Inventory [VFI]) for doing volunteer work. Principal factor analysis confirmed the presence of six principal components of volunteer motivation. Master Gardener functions related to new learning experiences (understanding) were equally as important as functions related to altruism (values). Satisfactions related to self-esteem (enhancement) ranked next in motivational importance. Motivations concerning relationships with others (social), protecting the ego (protective) and functions related to preparation for a new career (career), concluded the list. In addition, respondents were asked to indicate whether they were presently volunteering as a Master Gardener, how many years they had been active in the program, and level of volunteer time commitment to the program in the past year. In most cases, no correlations or statistical differences were found among respondents belonging to different demographic categories, making demographic information a poor predictor of motivation for volunteering. However, those who volunteered more time during the past year were more likely to highly rate certain motivational factors.

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The Master Gardener program originated at Washington State Univ. in 1972 in response to an overwhelming demand for consumer horticulture information and limited extension service resources to meet those demands. The mission of the Master Gardener program is to promote gardening, to inform the public about current horticultural practices, to enhance environmental conservation, and to broaden communities' gardening expertise (Guest, 1997). To achieve these goals, thousands of new volunteers are trained annually to teach others by extension specialists and educators. The objectives of this study were to determine the demographics of Missouri Master Gardener volunteers, and why they chose to become involved as an extension volunteer.

Understanding why people volunteer has been the subject of much research (Ellis, 1993; Gordon and Babchuk, 1959; Henderson, 1981; Piliavin and Charng, 1990; Sundeen, 1992; Thompson and Bono, 1993). In its simplest form, motivation for volunteering may be viewed as one of two incentives: helping others (altruism) or helping oneself (Piliavin and Charng, 1990; Stebbins 1996). Piliavin and Charng (1990) report that early studies of volunteer behavior took the position that under close scrutiny, all behavior must reflect egoistic motives. However, current theory and data view that true altruism does exist and is a part of human nature. The coprovision/coproduct theory of volunteerism involves aspects of both altruism and self-interest (Ferris, 1984; Sundeen, 1988). Coprovision was defined by Ferris (1984) as the "voluntary involvement of citizens in provision of publicly provided goods and services or close substitutes." Sundeen (1988) used the term coproduction to refer to activities in which citizens' volunteer time results in an increased level of public goods and services for a community either through citizens working directly under the auspices of a governmental agency or through volunteer investment of time in not-for-profit organizations. This definition of coproduction fits the model of the extension Master Gardener program where participants take horticultural training provided by the state's land-grant university system, and in turn volunteer to provide horticultural educational services to the local community.

Volunteerism may be viewed either as leisure (Henderson, 1981, 1984; Stebbins, 1996) or as career related (Ellis, 1993; Jenner, 1981). Henderson (1981) found that adult volunteers in the 4-H youth program described their volunteering as being a leisure activity. They were most motivated to volunteer for affiliation or social purposes, as evidenced by their need to interact with others. Jenner (1981) found in a mail survey that women view their volunteer role as either 1) consciously chosen primary work, 2) a supplement to primary work, or 3) a vehicle for entry or return to employment. Ellis (1993) concurs that volunteering can foster career development as well as enhance the job search process.

Materials and methods

As part of a more extensive mail survey on Master Gardener motivation and retention (Schrock et al., 1999, 2000), 417 randomly selected current and former Missouri Master Gardeners were asked to respond to their reasons for volunteering. Respondents were asked to indicate how important each of 30 reasons was for them in doing volun-

Table 1. Demographic parameters of Missouri Master Gardeners responding to the Volunteer Functions Inventory (VFI) survey.

Parameter	Respondents (%)
Age (years)	
<40	13.7
40s	27.1
50s	23.5
60s	24.5
≥70	11.2
Gender	
Female	65.0
Male	35.0
Relationship status	
Married	82.5
Divorced/widowed/separated	13.1
Single	4.4
Have children	
Yes	86.2
No	13.8
Occupation	
Retired	26.9
Professional/medical/education	22.5
Trade/technical	18.2
Homemaker	14.6
Business/sales/service	12.2
Other	5.6
Highest level of education	
High school graduate	11.6
Some college	35.3
College graduate	30.9
Postgraduate	22.2
Income Level	
Under \$20,000	10.3
\$20,000–\$39,999	33.2
\$40,000–\$59,999	23.3
\$60,000 or more	33.2
Residence	
City >250,000	21.7
City 25,000–249,999	24.3
Area <25,000	53.9
Years at present location	
<5	18.5
5–10	24.3
>10	57.2

teer work through the university outreach and extension Master Gardener program. If they were no longer active, they were asked to answer the questions to the best of their recollection of when they were involved as a Master Gardener. Responses were based on a seven-point Likert-like scale (Matell and Jacoby, 1972) from 1 (not at all important/accurate) to 7 (extremely important/accurate). The initial mailing resulted in 216 responses. A followup mailing to nonrespondents brought in another 66 responses for a total of 282 responses, a 67.6% response rate. Respondents to the first mailing were more likely to be currently active volunteers than respondents to the second mailing (72% vs. 52%, $P < 0.01$). However, other demographic categories and responses to questions, with one exception noted

below, did not differ significantly between the two groups. Thus no adjustments in data analysis were made for nonrespondents.

The survey instrument was an adaptation of the Volunteer Functions Inventory developed by Clary et al. (1998). The adaptation includes five questions for each of six principal components of volunteer motivation: Understanding (U), Values (V), Enhancement (E), Social (S), Protective (P), and Career (C). Principal factor analysis confirmed the presence of six principal components. The reliability of the six principal components was measured by Cronbach's alpha coefficient for internal consistency (Cronbach, 1951), which was 0.93 for all factors.

Demographic questions included age, gender, marital relationship status, ages of children, household income, occupation, level of education, location and length of residence. In addition, respondents were asked to indicate whether they were presently volunteering as a Master Gardener, how many years they had been active as Master Gardener volunteers, and level of volunteer time commitment to the Master Gardener program in the past year.

Results and discussion

Most respondents were married women with children and at least some college education (Table 1). About half were in their 40s or 50s, and had lived in communities with a population of less than 25,000 for more than 10 years. Retired individuals and professionals constituted the largest occupational categories.

Over two-thirds of respondents were presently active (defined as 20 h or more of volunteer service per year) as Master Gardener volunteers (Table 2). A plurality of respondents was currently volunteering 20 to 40 h/year and had been active in the program for 2 to 5 years. Most Master Gardener programs in Missouri require 30 h of volunteer service the first year and 20 h in succeeding years for participants to remain active Master Gardeners. The Master Gardener program began in the state in 1983, but most local Master Gardener organizations in the state were new within the 5 years before the survey.

Overall means for the six principal components of volunteer motivation are reported in Table 3. Master Gar-

Table 2. Volunteer activity of Missouri Master Gardeners responding to the Volunteer Functions Inventory (VFI) survey.

Activity	Respondents (%)
Presently volunteering as Master Gardener	
Yes	68.0
No	32.0
Hours volunteered in last year	
None	22.4
1–20	20.9
20–40	31.4
≥40	25.3
Number of years active	
0–1	40.6
2–5	45.7
6–10	8.3
≥10	5.6

Table 3. Principal motivation factors of Missouri Master Gardeners responding to the Volunteer Functions Inventory (VFI) survey.

Principal factor	Mean ^z
Understanding (U)	5.25 a
Values (V)	5.19 a
Enhancement (E)	3.98 b
Social (S)	3.42 c
Protective (P)	2.73 d
Career (C)	2.39 e

^zMeans from seven-point Likert scale: 1 = not at all important/accurate, 7 = extremely important/accurate. Means followed by the same letter are not significantly different ($P = 0.05$) as determined by Duncan's multiple range test.

dener functions related to new learning experiences, (exercising knowledge, skills, and abilities) categorized as U, were equally as important as functions related to altruism and humanitarian concern, labeled as V. Overall means for U and V were greater than 5 on the seven-point Likert scale, and they did not differ significantly from one another according to Duncan's multiple range test. Each of the other volunteer motivation categories differed significantly from Understanding and Values and from each other.

Table 4. Ranking of motivational factors within the Volunteer Functions Inventory (VFI) for Missouri Master Gardeners volunteers.

Motivational factor	VFI category ^z	Mean ^y
1. Learn more about horticulture/gardening	U	6.37 a
2. Learn horticulture through hands on experience	U	6.04 b
3. Feel it is important to help others	V	5.67 c
4. Genuinely concerned about home gardeners	V	5.29 d
5. Can do something for a horticultural cause	V	5.08 e
6. Feel compassion for people in need	V	4.92 f
7. Concerned about those less fortunate than myself	V	4.88 f
8. Allows me to gain new perspective on things	U	4.86 f
9. Way to make new friends	E	4.74 g
10. Can explore my own strengths	U	4.61 h
11. People I know share interest in community service	S	4.41 i
12. Can learn how to deal with a variety of people	U	4.30 j
13. Those close to me value community service highly	S	4.16 k
14. Increases my self-esteem	E	4.09 k
15. Helps me forget about how bad I've been feeling	P	3.91 l
16. Helps me feel better about myself	E	3.88 lm
17. Volunteering important to those I know best	S	3.77 mn
18. Makes me feel needed	E	3.72 n
19. Makes me feel important	E	3.41 o
20. By volunteering I feel less lonely	P	2.77 p
21. Can make new contacts that help my career	C	2.61 q
22. Is a good escape from my own troubles	P	2.46 r
23. Will look good on my resume	C	2.43 r
24. Helps me work through my own problems	P	2.42 r
25. People I'm close to want me to volunteer	S	2.38 rs
26. Will help me succeed in my chosen profession	C	2.37 rs
27. Friends volunteer as Master Gardeners	S	2.34 rs
28. Allows me to explore different career options	C	2.27 s
29. Can help me get foot in door where I want to work	C	2.21 s
30. Relieves guilt over being more fortunate than others	P	2.04 t

^zMeans from seven-point Likert scale: 1 = not at all important/accurate, 7 = extremely important/accurate. Means followed by the same letter are not significantly different ($P = 0.05$) as determined by Duncan's multiple range test.

^yCategories of motivation: U = understanding, V = values, E = enhancement, P = protective, C = career, and S = social.

Satisfactions related to personal growth and self-esteem, labeled E, ranked next in motivational importance. Motivations concerning relationships with others, classified as S, led the second half of the list. Protecting the ego from negative features of self, reducing guilt over being more fortunate than others, and addressing one's own personal problems, labeled P, was next in priority. And functions related to preparation for a new career or maintaining career-relevant skills, categorized as C, concluded the list.

In examining specific motivations for volunteering as an extension Master Gardener, 9 of the top 10 reasons were related to U or V (Table 4). The top two reasons were to learn more about horticulture and home gardening and learn horticulture through direct, hands-on experience. These results concur with the findings of Simonson and Pals (1990) who found the primary reason Idaho Master Gardeners enrolled in the program was to increase knowledge for themselves. Finch (1997) also found that Texas volunteers applied to the Master Gardener program primarily for the horticultural information; and Carlton (1981) determined a preference for more hands-on training activities among Florida Master Gardeners. Responses to "allows me to gain a new perspective on things" and "can explore my own strengths", additional questions related to U, indicated

Table 5. Correlation of Master Gardener age with career-related volunteer motivational factors.

Motivational factor	Correlation ^z
New contacts I make will help me in my career	-0.37
Volunteering as Master Gardener will look good on my resume	-0.35
Allows me to explore different career options	-0.32
Can help me get my foot in the door at a place I'd like to work	-0.28
Will help me succeed in my chosen profession	-0.24

^z $P < 0.01$ for all factors.

that advancing personal understanding was less important to Master Gardeners than gaining technical horticultural knowledge.

Motivational factors related to altruism and concern for others consistently ranked high, holding down places 3 through 7. This closely follows the pattern determined by Finch (1997) in which opportunity for community service ranked second to horticultural information as a reason for applying to the Master Gardener program. However, results from the current study differ from those of Simonson and Pals (1990), where "to help others" ranked last out of six reasons for becoming an Idaho Master Gardener. A possible explanation for the discrepancy is the fact that respondents in the Idaho survey were forced to select a primary reason for becoming a Master Gardener, and the other studies asked respondents to rate the importance of each reason rather than select a single reason.

The 10 least important reasons for volunteering as a Master Gardener in Missouri focused on C, S, and P functions (Table 4). There was no statistical difference in the low priority C reasons, "can help me get a foot in door where I want to work", and "allows me to explore different career options". Exploring career options did not differ from "friends volunteer as Master Gardeners", "will help me succeed in my chosen profession", and "people I'm close to want me to volunteer". These latter three reasons also did not differ significantly from "helps me work through my own problems", "will look good on my resume", and "is a good escape from my own troubles". Slightly more important as a reason for volunteering was "I can make new contacts that help my career". The P motivation, "relieves guilt over being more fortunate than others" ranked lowest in importance as a motivation for volunteering.

The relatively low ranking of C-related motivational factors is surprising in light of Simonson and Pals' (1990) study, which found "knowledge for job" as the third most important reason for volunteering as a Master Gardener after "knowledge for self" and "self-improvement". Also, Jenner (1981) found that women view their volunteer role either as consciously chosen primary work, a supplement to primary work, or a vehicle for entry or return to employment. Ellis (1993) supports the idea that volunteering can foster career development and enhance the job search process. Indeed, in the current survey, females were more likely than males ($P = 0.016$) to indicate that the Master Gardener program allows them to explore different career options.

Differences in responses by gender surfaced in several areas other than C-related motivators. Females were more likely than males to indicate these as important reasons for volunteering: "I feel compassion toward people in need" ($P < 0.01$), "I can learn how to deal with a variety of people as

a Master Gardener volunteer" ($P = 0.01$), "I am concerned about those less fortunate than myself" ($P = 0.02$), "Volunteering as a Master Gardener is a way to make new friends" ($P = 0.04$), and "Through the Master Gardener program I can explore my own strengths" ($P = 0.05$).

As might be expected, age also plays a role in the importance of C as a motivational factor in volunteering as a Master Gardener. Career-related motives are negatively correlated with age. As age of respondents increased, importance of career motivational factors decreased (Table 5).

Current involvement level in the Missouri Master Gardener program differentially affected responses to many motivational factors. Those who volunteered more time during the past year were more likely ($p < 0.05$) to highly rate the following reasons for volunteering:

- Helps me forget about feeling bad
- Do something for a horticultural cause important to me
- Makes me feel needed
- Helps me feel better about myself
- Genuinely concerned about home gardeners
- Can explore my own strengths
- Gain new perspective on things
- Those close to me value community service
- Makes me feel important
- People I know share an interest in community service
- Way to make new friends
- Feel it is important to help others
- Volunteering is important to people I know best.

Conclusions

Missouri Master Gardener volunteers are motivated to contribute time to university extension horticultural education programs for a variety of reasons. Reasons related to increasing personal horticultural knowledge and opportunity to help others rank highest as reasons for volunteering. Reasons related to career development, social aspects and protecting the ego tend to be ranked as a low priority. However, for certain volunteers, each of the 30 reasons examined may rank extremely high or extremely low in importance since the range of responses to each question on the seven-point Likert scale was from 1 through 7, with the exception of the U-related questions, "Learn more about horticulture and home gardening" and "Learn horticulture through hands-on experience", for which the range of responses was 2 through 7 (data not presented).

Demographic information is a poor predictor of motivation for volunteering. In most cases, no correlations or statistical differences were found among respondents belonging to different demographic categories. Exceptions included gender and age. Younger Master Gardener volunteers and women are more likely to be motivated by C-

related reasons. In addition, women are more likely to volunteer because they feel compassion toward people in need; they want to learn how to deal with a variety of people; they are concerned about those less fortunate than themselves; they see the Master Gardener program as a way to make new friends; and they view the Master Gardener program as a means of exploring their own strengths. All these reasons help explain why Master Gardener programs typically have more female than male volunteers.

Use of the VFI as part of the Master Gardener application process could help determine the intent of a candidate to volunteer in the program. For example, volunteers whose primary motivation is career related are likely to leave the program upon receiving training that prepares them for a career change or advancement. VFI results could also aid in volunteer placement, matching reasons for volunteering with likely outcomes of experiences. Since the knowledge function is so important to nearly all Master Gardener volunteers, it is vital to provide continued learning opportunities for them, in the form of advanced training sessions, periodic updates, newsletters, and on-the-job learning experiences.

Active Master Gardener volunteers are more likely to ascribe greater importance to motivational factors as reasons for volunteering than volunteers less involved. Further study is needed to determine whether the attribution of greater importance to specific reasons for volunteering could be used as a predictor of future involvement in the program, or whether the attribution is a result of having received personal benefits from volunteering. A separate article on benefits received from the Master Gardener program (Schrock et al., 2000) addresses this research topic.

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