

**ADULT VOLUNTEER RETENTION IN AN  
AFTER-SCHOOL GARDEN CLUB SETTING:  
A CASE STUDY**

by

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## **Abstract**

Once a fixture of American schoolyards during the early 1900's, school gardens in the United States are again growing in popularity. It is estimated that one-fourth of all public and private schools in the U.S. have a school garden. Funding, teacher involvement, support of the principal, volunteer help, garden coordination, maintenance assistance and site availability are all factors found to contribute to the success of school gardens and are also found to be the barriers to sustainability of school gardens. Many of these challenges can be overcome with the support of volunteers. Little is known however, about individuals who volunteer their time to a school garden program and more importantly no research has investigated the specific variables influencing volunteer retention in an after-school garden club program setting. A case-study of long-term adult after-school garden club program volunteers was conducted to determine the variables affecting one's decision to continue volunteering after one semester with a program of this type. Twenty long-term after-school garden club program volunteers were interviewed. Interview responses were grouped into main theme and subtheme categories using NVivo, a qualitative analysis software. Main themes that had responses from at least 95% of the volunteers participating in the case-study, were isolated for further analysis. The top five subthemes for each of these isolated main themes were assessed and four of these main themes were found to have similar top five subthemes. These subthemes and the long-term volunteer demographics were then used to determine the variables affecting volunteer retention in an after-school garden club setting. Age, marital status and level of education were all found to affect length of volunteer service. Organizational commitment, positive volunteer relations, organizational support, learning opportunities and the opportunity to work with children all contributed to the decision of after-school garden club program volunteers to continue

volunteering after one semester of service. Furthermore, it can be concluded that these volunteers continued to volunteer because their initial motivations, expectations and/or needs were met through their participation in the program.

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# **Chapter 1**

## **Literature Review**



The rate of volunteerism in the United States was 26.8% in 2009 with 63.4 million Americans involved in at least one volunteer experience between September 2008 and September 2009 (Bureau of Labor Statistics, 2010). During this time period, volunteers contributed 8.1 billion hours of service, which is estimated to be worth \$169 billion (Corporation for National and Community Service, 2010). Religious organizations received the most volunteer assistance between 2008-2009 (34% of all volunteers) followed by educational and youth service related organizations (26.1% of all volunteers) (Bureau of Labor Statistics, 2010). The activities most frequently performed by volunteers include fundraising; collecting, preparing, distributing or serving food; general labor; providing transportation; and tutoring and teaching (Bureau of Labor Statistics, 2010). Approximately 90% of all volunteers surveyed by the Independent Sector in 2001 volunteer in an effort to “give back to the community” (Toppe, Kirsch & Michael, 2001, p. 20).

From the statistics presented above, it is clear that volunteers play a critical role in sustaining the work of nonprofit organizations. Their countless hours of service can also be seen as a vital contribution to our educational systems. Volunteer networks however, are not always stable, making it difficult for some organizations to rely on a steady workforce of volunteers. Even though the rate of volunteerism in the United States increased from 26.4 percent in 2008 to 26.8 percent in 2009, 34.5 percent, or roughly one-third of the individuals who volunteered in 2008, did not volunteer again in 2009 (Corporation for National and Community Service, 2010; Corporation for National and Community Service, 2008). As shown by Hager and Brudney (2004) in an organizational study of U.S. based charities, volunteer retention can be challenging. Only 17% of the charities surveyed by Hager and Brudney (2004) had a volunteer retention rate of 100% after a one-year time period and almost 3% of the charities experienced no retention.

Due to the time required and costs involved in training new volunteers, retaining volunteers can be crucial to saving both time and money for any organization who utilizes this workforce.

Since volunteers come from a diversity of backgrounds and have varied personalities, attitudes, obligations, personal histories and levels of expertise, it can be difficult to pinpoint exactly what causes an individual to stop volunteering. Knowing what specific factors affect one's decision to remain a volunteer can be useful to organizations looking to increase their volunteer retention rates. Several studies have examined the potential determinants of volunteer turnover (Cnaan & Cascio, 1999; Gidron, 1985; Hidalgo & Moreno, 2009; Kulik, 2007; Miller, Powell & Seltzer, 1990). Researchers have found a diversity of variables that can play a part in a volunteer's decision to remain with an organization. These variables include, but are not limited to: age, marital status, level of education, income, personal volunteer history, degree of organizational and social support, task achievement and the development of a volunteer role identity (Boezeman and Ellemers, 2007; Bureau of Labor Statistics, 2010; Chacón, Vecina and Dávila, 2007; Cnaan & Cascio, 1999; Gidron, 1985; Haski-Leventhal and Cnaan, 2009; Hidalgo & Moreno, 2009; Kulik, 2007; Lammers, 1991; Miller et al., 1990; Stevens, 1991; Toppe et al., 2001).

Reasons for volunteering can change throughout a volunteer's term of service, which might help to explain the fluctuations in volunteer involvement found within an organization. In their study of 300 social organization volunteers, Chacón et al. (2007) found that "the variables influencing service duration in the short term are different from those that influence it in the medium and long term" (p. 637). Lammers (1991) also found differences in the variables affecting volunteer commitment and volunteer service duration. Volunteer commitment of Midwestern crisis and information telephone service volunteers, was influenced by education level, gender, desiring a new skill and viewing voluntary behavior as having value, while overall service duration was

affected by continued education during the time of service, satisfying aspects of the task itself and relations with other volunteers (Lammers, 1991). Environmental stewardship volunteers in Ryan, Kaplan and Griese's (2001) volunteer commitment study, who initially volunteered to help the environment or learn more about it, continued to volunteer in order to meet new people and to become involved in project management. Determining the variables that influence a volunteer's duration of service can help to increase volunteer retention rates, thereby aiding in the maintenance of a solid volunteer workforce.

Demographics such as age, marital status, having children under the age of 18, living arrangements, household income and level of education, have all been found to affect one's degree of volunteer involvement (Bureau of Labor Statistics, 2010; Cnaan and Cascio, 1999; Lammers, 1991; Rohs, 1986; Toppe et al., 2001). A supplement to the September 2009 Current Population Survey sponsored by the Corporation for National and Community Service, looked at the percentage of Americans, 16 years of age and older, who volunteered at least once between September 2008 and September 2009. The study found middle-aged Americans to be the most likely to volunteer. Americans 35-44 years old and 45-54 years old, volunteer 31.5% and 30.8% of the time respectively. Those least likely to volunteer were 16-24 year olds, with only 22% of this population volunteering at least once between 2008 and 2009. Those 65 and older experience a sharp decline in volunteerism, with just 23.9% of this age group volunteering, however, this age group also had the highest median annual hours spent volunteering with a total of 90 hours (Bureau of Labor Statistics, 2010).

Age is predictor of volunteer tenure, satisfaction and burnout (Cnaan and Cascio, 1999; Kulik, 2007; Miller et al., 1990; Rohs, 1986; Spitz and MacKinnon, 1993;). A survey of 275 social

service volunteers in Israel found age to be a determining factor of volunteer burnout. “The older the participants, the lower their levels of burnout and the greater their satisfaction with volunteer activity and with its rewards” (Kulik, 2007, p. 246). Cnaan and Cascio (1999) found similar results in a study of 510 consistent human service organization volunteers in three Eastern United States cities. Age was found to be positively correlated with volunteer satisfaction and length of volunteer service (Cnaan and Cascio, 1999). U.S. based charities interviewed by Hager and Brudney (2004), who reported having a larger percentage of volunteers under age 24, also had lower retention rates. Miller et al. (1990), found age to be significantly related to turnover in a study of 158 hospital volunteers from hospitals located in a northeast suburb and a large southwestern city, 56% of whom were over the age of 60. This might be attributed to the fact that a volunteer’s age was found to significantly affect their thoughts on the convenience of the volunteer schedule and their intentions to volunteer in order to gain experience. “Older individuals were more likely to see their schedules as convenient and were less likely to be working as volunteers to gain experience” (Miller et al., 1990, p. 911). Furthermore, convenience of schedule was directly correlated with turnover.

In addition to age, marital status, living arrangements, having children under the age of 18, and income level all have an effect on one’s volunteer tenure and to some extent, their likelihood of volunteering in the first place. Married individuals volunteer for longer periods than non-married individuals, and are more likely to volunteer than those who are single, divorced, widowed or living with a partner (Cnaan and Cascio, 1999; Toppe et al., 2001). Individuals living with a spouse are more likely to commit themselves to longer terms of volunteer service than individuals living with relatives or friends and parents of children under the age of 18 are more likely to volunteer than individuals without children under the age of 18 (Bureau of Labor

Statistics, 2010; Cnaan and Cascio, 1999). Volunteers that have children involved in the programs they are volunteering for have been found to have longer tenure. In a study of 300 4-H volunteers, Rohs (1986), found a positive correlation between length of volunteer service and having children involved in 4-H. Income is also a variable in determining one's level of volunteerism. Household income is positively correlated with the likelihood of volunteering and the length of volunteer service (Cnaan and Cascio, 1999; Toppe et al., 2001). "The tendency of people to volunteer increases as household income increases" (Toppe et al., 2001, p. 19).

Approximately one in four individuals from households earning \$25,000 or less volunteered during 2000, "while more than one in two from households with incomes of \$75,000 or more volunteered" (Toppe et al., 2001, p. 19). Furthermore, the amount of time devoted to volunteering each month, increases slightly for each consecutive income group. Individuals with household incomes of \$25,000 or less spent 22 hours volunteering per month, while those in the highest income bracket of \$75,000 or more, spent 27 hours volunteering a month (Toppe et al., 2001).

Education level has also been found to predict volunteer involvement, level of performance and length of volunteer service. Individuals with a higher degree of educational attainment are more likely to volunteer than those with less education (Bureau of Labor Statistics, 2010). According to a national survey conducted by the Independent Sector (2001), 62.9% of the college graduates surveyed reported volunteering for a formal organization during the previous year, while only 36% of the high school graduates surveyed reported volunteer involvement during the previous year. In a survey of Midwestern crisis and information telephone service volunteers, educational level at the time of volunteer sign-up was discovered to be a discriminating factor among volunteers who fulfilled their volunteer commitment and those who stopped volunteering before

their commitment time was completed (Lammers, 1991). Volunteers with a higher level of education at the time of sign-up, were more likely to follow through on their commitment than those with lower levels of education (Lammers, 1991). Education was also found to be a predictor of volunteer commitment and performance in a two-year study of 67 Companions for Children, Inc. volunteers conducted by Burke and Hall (1986). The higher the education level of the volunteer, the higher performance rating they received and the longer they remained with the volunteer program (Burke and Hall, 1986). Spitz and MacKinnon (1993) found similar results in a study of 60 Big Brothers-Big Sisters volunteers. Successful volunteers, those that fulfilled a volunteer commitment, were older and more highly educated than their unsuccessful counterparts who dropped out of the volunteer program prior to completion (Spitz and MacKinnon, 1993). Degree of educational attainment can also determine how many organizations a volunteer has been involved with. Those with higher educational attainment in the September 2009 Volunteer Supplement to the Current Population Survey “were more likely to volunteer for multiple organizations than were those with less education” (Bureau of Labor Statistics, 2010, p. 3).

Volunteers can become involved with several organizations throughout their lifetime. History of volunteer service can be used to predict volunteer retention, length of volunteer service as well as volunteer satisfaction (Cnaan and Cascio, 1999; Gidron, 1985; Stevens, 1991;). Looking to identify the discriminating factors between “stayers” and “leavers by choice” in three Israeli community center volunteer settings, Gidron (1985) found that out of the six personal variables studied (age, gender, employment status, ethnicity, location of residence in reference to volunteer experience, previous experience as a volunteer), “previous experience as a volunteer” was the only personal variable found to differentiate the two groups of volunteers over a six-month time

period. Greater volunteer satisfaction and tenure resulted from volunteers who volunteered for other agencies (Cnaan and Cascio, 1999). A study of 151 senior volunteers (ages 60-93), defined the personal characteristic “service activity pattern” as the “number of cumulative years of involvement in service associations during adult life, as determined by the volunteer” (Stevens, 1991, p. 36). Out of the four personal characteristics tested in this study (“level of life satisfaction,” “service activity pattern,” “proximity to assignment,” “employment status”), “service activity pattern” was the only characteristic found to be “associated with both volunteer satisfaction and retention” (Stevens, 1991, p. 36).

The level of support and recognition volunteers receive from the organization they are serving, the supportiveness of their fellow volunteers, and their overall sense of belonging, can affect volunteer burnout, retention rates, intention to remain, duration of service, organizational commitment, volunteer satisfaction and volunteer self-esteem (Boezeman and Ellemers, 2007; Cnaan and Cascio, 1999; Gidron, 1985; Haski-Leventhal and Cnaan, 2009; Hidalgo and Moreno, 2009; Jamison, 2003; Kulik, 2007; Lammers, 1991; Stevens, 1991). Preparing a volunteer for the task at hand not only gives volunteers a sense of what their role is within the organization and increases their sense of belonging, it can also affect volunteer tenure, intention to remain and discriminate between “stayers” and “leavers by choice” (Cnaan and Cascio, 1999; Gidron, 1985; Haski-Leventhal and Cnaan, 2009; Hidalgo and Moreno, 2009; Jamison, 2003). In a study of 393 social and ecological volunteers in Spain, Hidalgo and Moreno (2009) found social networks, organizational support, positive task and training to be significant predictors of a volunteer’s intention to remain a volunteer. The authors point out that “good social relationships inside the organization, support from the organization staff, positive evaluation of the job they perform, and the training they receive contribute positively to their intention of remaining in the

volunteer activity” (Hidalgo and Moreno, 2009, p. 598). Pride and respect in terms of volunteer commitment, was the focus of Boezeman and Ellemers’ (2007) study of 89 Dutch fundraising volunteers. Perceived organizational support was found to be indirectly and positively related to organizational commitment through the level of respect exhibited by the volunteer organization to its volunteers. The authors suggest that these findings “may help volunteer organizations develop concrete policies and measures that induce pride and respect, as a means to foster commitment to the volunteer organization” (Boezeman and Ellemers, 2007).

Volunteer trainings are a way in which organizations can help volunteers to feel supported and may ultimately affect volunteer commitment and retention. From a review of research literature, Haski-Leventhal and Cnaan (2009) developed a model of four volunteer group types: habitual, dual-identity, training-induced and provisional. In a training-induced group setting, new and unaffiliated volunteers are brought together in an effort to form a “long-term, cohesive and committed group of volunteers” (Haski-Leventhal and Cnaan, 2009, p. 71). These volunteers are brought together for the first time during a volunteer training. Haski-Leventhal and Cnaan (2009) suggest that the training a volunteer receives is part of their organizational socialization process and that “role ambiguity and organizational ambiguity among volunteers may create frustration, anxiety, and low commitment” (p. 72). After interviewing more than 1700 volunteer administrators and executive managers from U.S. based charities, Hager and Brudney (2004) discovered that charities who offer training and professional development opportunities to their volunteers, have higher rates of volunteer retention. In a comparison study of 86 active and 33 inactive volunteers of agencies affiliated with the Community Human Service Partnership in Leon County, Florida, Jamison (2003) found that active volunteers were more satisfied than inactive volunteers regarding pre-service training, in-service training and challenging work.



Thus, these factors are related to volunteer retention and turnover, each of which can be easily managed by the organization. Additional evidence of the importance of pre-service training was that “55.4% of those who reported no training were unsatisfied with the volunteer experience” (Jamison, 2003, p. 126). In contrast, Cnaan and Cascio (1999) found volunteer orientation to be associated with shorter lengths of volunteer service.

Supervision is also a variable that can be used to describe volunteer satisfaction and retention (Hager and Brudney, 2004; Kulik, 2007). For social service volunteers in Israel, lack of professional supervision resulted in lower levels of satisfaction with the rewards of volunteering and with the volunteer activity itself (Kulik, 2007). Conversely, regular supervision and communication with volunteers from U.S. based charities, was found to be associated with lower levels of volunteer retention (Hager and Brudney, 2004). In fact, this management practice was the only management practice out of eight, to have a negative influence on volunteer retention. Hager and Brudney (2004) suggest that “some charities may supervise and communicate in a way that volunteer experiences feel too much like the grind of their daily jobs rather than an enjoyable avocation, thereby diminishing the experience for volunteers and reducing their desire to continue volunteering” (p. 9).

Volunteers like to feel appreciated and recognized for the work they perform. Organizations and agencies that show appreciation to their volunteers and reward them for their work with have more satisfied and committed volunteers who are less likely to experience burnout (Cnaan and Cascio, 1999; Kulik, 2007). Cnaan and Cascio (1999) looked at 17 different symbolic rewards and their effect on volunteer satisfaction, commitment (hours given per month) and tenure. Out of all 17 rewards, only two were not associated with volunteer satisfaction. The authors point

out that “This finding underscores the importance of rewards in enhancing volunteer satisfaction” (Cnaan and Cascio, 1999, p. 24). Four out of the seven rewards were associated with volunteer commitment: prizes, out-of-house conferences, free medical services, and free meals and three of the rewards were associated with volunteer tenure: thank you letters, certificates of appreciation, and luncheons (Cnaan and Cascio, 1999). The volunteers surveyed by Kulik (2007) expressed similar reactions towards appreciation. Lack of appreciation was found to be significantly linked to volunteer burnout (Kulik, 2007). Active volunteers in Kulik’s (2007) study were more likely to express high satisfaction with their volunteer experience and higher satisfaction for organizational factors such as working directly with the staff and staff appreciation than did inactive volunteers. Recognition was also one of the four attitudinal variables found to distinguish “stayers” from “leavers by choice” (Gidron, 1985). Out of the eight primary management practices that were adopted by U.S. based charities, hosting recognition activities had the most positive influence on volunteer retention (Hager and Brudney, 2004). In Stevens’ (1991) study of 151 senior volunteers, she discovered “role recognition”- “the positive feedback from peers, supervisor, clients, and the volunteer organization”- to be associated with higher levels of volunteer satisfaction and retention (p. 37).

Not only does the degree of supervision and recognition one receives from their volunteer organization play into their level of satisfaction and length of service, the social networks formed during their service can have a direct impact on these variables as well. In addition to “role recognition,” Stevens (1991) found “role-set interaction” to be a defining role characteristic of volunteer satisfaction and retention. “Role-set interaction refers to contact with other volunteers and paid staff” (p. 37). Working as a team, solving problems together and forming friendships are items used to describe the attitudinal variable “relationship with other volunteers,” which was

shown to separate the “stayers” from the “leavers by choice” in Gidron’s (1985) volunteer study. Hidalgo and Moreno’s (2009) volunteer study results show that “social networks with other members of the organization are quite important, as this variable alone accounts for 23% of the variability of the intention to remain a volunteer” (p. 599). The authors suggest that “the creation of effective bonds with other members of the organization can make volunteers reluctant to break those bonds and, therefore, they remain volunteers” (Hidalgo and Moreno, 2009, p. 599). Lammers (1991) discovered volunteer relationships to be a positive feature of the volunteer experience and a key variable in determining the length of volunteer service (1991). Volunteer relations were one of the three significant variables found to predict duration of service (Lammers, 1991).

While social networks forged between members of a volunteer group can successfully reduce turnover, the absence of such support networks, can lead to higher levels of volunteer burnout. Crisis line volunteers studied by Cyr and Dowrick (1991) associated experiencing the turnover of fellow volunteers, experiencing a lack of contact within their volunteer group and experiencing a lack of discussion with their fellow volunteers about the stressors of their volunteer experience, with feelings of burnout.

Social networks can create a sense of belonging among its members. This feeling of belonging can boost one’s self esteem, which in turn can increase a volunteer’s level of satisfaction as well as decrease volunteer burnout (McCurly and Lynch, 1994 as cited in Haski-Leventhal and Cnaan, 2009; Kulik, 2007). Self-esteem is “a system of beliefs and attitudes that individuals have about themselves, their value, their abilities, and their social status” (Rosenberg, 1965 as cited in Kulik, 2007). Empowerment is also a personality trait that can be linked to volunteer

satisfaction and burnout. Kulik (2007), who studied the impact of personality traits on volunteer satisfaction and burnout, defines empowerment as, “a sense of control over the environment that is generated when people feel they are performing a task that has social value” (p. 241). Kulik’s (2007) study results show that “the higher the volunteers’ self-esteem and the higher their levels of empowerment, the greater their satisfaction with volunteering and the lower their levels of burnout” (p. 252). Contrasting results were found by Cnaan and Cascio (1999). Out of the nine personality traits tested by Cnaan and Cascio (1999), self-esteem was the only trait found not to be significantly associated with volunteer satisfaction, level of commitment (hours given per month) and tenure.

Time is a highly valued commodity. Volunteers who feel their time is not being well utilized by the volunteer organization, are more likely to express lower levels of satisfaction with the volunteer activity and experience higher levels of burnout (Kulik, 2007). Volunteers want to feel that they are making a difference and that their skills are getting put to good use. Gidron (1985) found the “work itself” and “task achievement” variables to discriminate between “stayers” and “leavers by choice.” “Work itself” is explained by such items as: “job is challenging,” “interesting,” “makes use of my skills and knowledge,” “allows for independence” and “requires responsibility” and the “task achievement” variable is explained by “client makes progress” (Gidron, 1985). In fact, three out of the four variables found to predict volunteer retention in Gidron’s (1985) study-“work itself,” “task achievement” and “preparation for the task”-are related to the link between the volunteer and his task (Gidron, 1985). Gidron (1985) concludes, “It seems that it is the task itself, the actual work the volunteer is doing and the opportunity through this work to express himself, that keeps him on his job” (p. 13). Having a meaningful volunteer experience was important to both active and inactive volunteers surveyed by Jamison

(2003). Both groups of volunteers reported the highest level of satisfaction with the organizational variable “worthwhile service.” “Satisfying aspects of the task itself” were tied to volunteer duration in Lammer’s (1991) study of Midwestern crisis and information telephone service volunteers (p. 139). “The perceived importance of volunteer work” was indirectly related to the organizational commitment of fundraising volunteers through feelings of volunteer pride (Boezeman and Ellemers, 2007, p. 168). Finally, carrying out gratifying tasks affects one’s intention to remain volunteering for social and ecological organizations in Spain (Hidalgo and Moreno, 2009).

In order to make a valuable contribution to a volunteer organization, volunteers first need to know what their role is within the organization. If volunteers are not clear about their specific tasks, this can lead to dissatisfaction and ultimately volunteer burnout (Kulik, 2007). “Role ambiguity and organizational ambiguity among volunteers,” may also lead to volunteer anxiety, frustration and low levels of volunteer commitment (Haski-Leventhal and Cnaan, 2009, p. 72). Through their study of social organization volunteers, Chacón et al. (2007) show that achieving volunteer role identity is associated with long-term volunteer service. When a volunteer’s role “becomes part of [their] personal identity, behaviors are produced and maintained independently of variables such as social norms” (Chacón et al., 2007).

Role identity as well as the intention to remain volunteering for one year, are predicting variables of long-term volunteer service or otherwise stated, the intention to remain for two years. While role identity can be used to explain long-term volunteer involvement, other variables have been shown to best predict service duration in the short (6 months) and medium (12 months) terms. Through their “three-stage model of volunteers’ duration,” Chacón et al. (2007) show that the

variables predicting a volunteer's intention to remain for 6 months are different than the variables predicting intention to remain for 12 months and intention to remain for two years. "Satisfaction is more relevant for predicting duration of service in the short-term, while organizational commitment and role identity are more relevant for predictions in relation to the medium (one year) and long-term (two years)" (Chacón et al., 2007, p. 638). Satisfaction is established in the initial phase of one's volunteer experience in part, through the extent to which the volunteer organization satisfies the motivations, expectations and values of the volunteer (Chacón et al., 2007). It is critical that satisfaction is established early on, however, satisfaction alone is not enough to maintain volunteers for the long-term. As time progresses, volunteers must form a connection with their service organization that outweighs the costs of volunteering (e.g. "time, money, burnout, poor personal interaction") or else their intention to remain will decrease (Chacón et al., 2007). This connection is made clear through the development of organizational commitment and role identity. According to Chacón et al. (2007), organizational commitment is the "sensation that one should do things despite the difficulties, because one endorses the organization and its objectives, its people and so on" (p. 630). Once this commitment is established, volunteers can then take on the volunteer role as part of their personal identity. Chacón et al. (2007) point out, however, that these variables (satisfaction, organizational commitment, role identity) are mediated by the behavioral intention to remain a volunteer. "The best predictor of actual service duration is volunteers' own intention to remain. It is therefore, volunteers' own estimation of their probability of continuing in the organization, and not other variables of a psychological or organizational nature, that best and most directly predicts actual longevity of service" (Chacón et al., 2007, p. 637).

Once a fixture of American schoolyards during the early 1900's, school gardens in the United States, are again growing in popularity. These outdoor classrooms have been experiencing a revival of sorts in recent years. It is estimated that one-fourth of all public and private schools in the U.S. have a school garden (Carter, 2010) and an estimated 6000 school gardens can be found in the state of California alone (The California Foundation for Agriculture in the Classroom as cited by Correa, 2010). With the support of First Lady Michelle Obama, who endorses the establishment of school gardens as a way to create healthier lifestyles among America's youth, gardens are becoming an appealing addition to the school landscape. In fact, a majority (55%) of all U.S. households surveyed by the National Gardening Association [NGA] (2009) think that gardens "should be implemented at every school" (20%) or that "gardening activities should be implemented [at schools] whenever possible" (35%) (p. 15). In addition to classroom gardens, after-school gardening programs are another way children can benefit from school gardens. Twenty-two percent of NGA respondents believe gardening activities "should be offered as an extracurricular activity" (NGA, 2009, p. 15).

No matter how popular they may become, school gardens are not without their challenges. School gardens require ample support in order to be successful. Funding, teacher involvement, support of the principal, volunteer help, garden coordination, maintenance assistance and site availability are all factors found to contribute to the success of school gardens (Azuma, Horan and Gottlieb, 2001, De Marco, 1997). Furthermore, lack of gardening experience has been found to be a contributing factor in the absence of school garden programs (Azuma et al., 2001). In an effort to identify the nature and extent of school garden programs in the Los Angeles Unified School District (LAUSD), as well as the opportunities and barriers associated with the formation and continuation of such programs, the Center for Food and Justice selected 131 of the 427

elementary schools in the LAUSD to participate in a survey. A little over half of the schools contacted had a school garden at the time of the survey and approximately 15% of the schools without a garden at the time of the survey, previously had a garden, but had abandoned it (Azuma, Horan and Gottlieb, 2001). According to the schools previously with garden programs, the top three reasons given for program termination include: teacher overload, lack of funding, space no longer available. Maintenance difficulties, lack of parent or volunteer support and time requirement were also listed as factors that affected the lifespan of school gardens. A third of the schools surveyed had never had a garden program, however, a majority of these schools, expressed interest in developing a school garden program in the future. The most common reasons given for the absence of a garden program are similar to the reasons for ending a garden program and include (in order of importance): lack of funding, teacher overload, lack of space, lack of a garden supervisor and lack of gardening experience and maintenance problems.

De Marco (1997) discovered similar barriers to the success of school gardens in her study of 236 U.S. schools who had received a Youth Gardening Grant from the National Gardening Association. A majority of respondents believed school gardens could not be successful without funding for supplies, support of the principal, teachers' gardening knowledge, site availability, a garden coordinator and a summer maintenance program. A little less than half (45.3%) of those surveyed believed school gardens could not be successful without the availability of volunteer help. While 83% of the 53 South Carolina school gardens surveyed by Greenwold Derks (2008) had teachers that were involved in their school's garden program, parents and community volunteers were also found to be an important component, participating at 43% and 42% of the schools respectively. The greatest challenge to starting and/or maintaining a school garden program for a majority of the South Carolina schools surveyed (68%) was help, labor and



maintenance concerns. Funding, time and adequate water and gardening materials were also seen as challenges to the sustainability of school gardens in South Carolina (Greenwold Derks, 2008).

As the research in this literature review shows, a diversity of variables have been found to affect volunteer satisfaction and commitment, length of volunteer service, volunteer burnout and/or intention to remain. These variables include, but are not limited to: volunteer demographics, volunteer history, degree of organizational and social support and the development of role identity. Furthermore, these variables can ultimately be used to distinguish long-term volunteers from short-term volunteers. No research, however, has yet to distinguish the variables affecting volunteer retention in an after-school garden club program setting. The following research sets out to determine if the variables influencing after-school garden club program volunteers to continue volunteering after one semester, are similar to the findings presented in this review and lay out any new findings that are unique to this specific group of volunteers.

## Literature Cited

- Azuma, A., Horan, T. and Gottlieb, R. (2001). *A place to grow and a place to learn*. Occidental College, Los Angeles, CA: Center for Food and Justice, Urban and Environmental Policy Institute.
- Boezeman, E. J. & Ellemers, N. (2008). Pride and respect in volunteers' organizational commitment. *European Journal of Social Psychology*, 38(1), 159-172.
- Bureau of Labor Statistics, U.S. Department of Labor. (2010). *Volunteering in the United States-2009*. Washington, D.C.
- Burke, D. M. & Hall, M. (1986). Personality characteristics of volunteers in a companion for children program. *Psychological Reports*, 59, 819-825.
- Carter, C. (2010, July 20). *Transcripts of school gardens with Constance Carter*. Retrieved from: <http://www.loc.gov/rr/program/journey/schoolgardens-transcript.html>
- Chacón, F., Vecina, M. L. & Dávila, M. C. (2007). The three-stage model of volunteers' duration of service. *Social Behavior and Personality*, 35(5), 627-642.
- Cnaan, R. A. & Cascio, T. A. (1999). Performance and commitment: Issues in management of volunteers in human service organizations. *Journal of Social Service Research*, 24(3), 1-37.
- Corporation for National and Community Service. (2010). *Volunteering in America 2010 fact sheet*. Washington, D.C.

Corporation for National and Community Service. (Last Updated 2008, April 27). *Volunteering in America-Research frequently asked questions*. Retrieved from:

[http://www.volunteeringinamerica.gov/about/research\\_faqs.cfm#volunteering\\_and\\_retention](http://www.volunteeringinamerica.gov/about/research_faqs.cfm#volunteering_and_retention)

Correa, T. (2010, April 26). Valley kids find fruitful labor in school gardens. *The Fresno Bee*.

Retrieved from: <http://www.fresnobee.com/2010/04/25/1910392/valley-kids-find-fruitful-labor.html>

Cyr, C. & Dowrick, P. W. (1991). Burnout in crisisline volunteers. *Administration and Policy in Mental Health*, 18(5), 343-354.

De Marco, L. (1997). *The factors affecting elementary school teachers' integration of school gardening into the curriculum*. (Unpublished doctoral dissertation). Virginia Tech University, VT.

Greenwold Derks, L. (2008). *2008 South Carolina school garden survey results*. South Carolina: South Carolina Department of Agriculture.

Gidron, B. (1985). Predictors of retention and turnover among service volunteer workers. *Journal of Social Service Research*, 8(1), 1-16.

Hager, M.A. & Brudney, J. L. (2004). *Volunteer management practices and retention of volunteers*. Washington, D.C.: The Urban Institute.

Haski-Leventhal, D. & Cnaan, R. A. (2009). Group processes and volunteering: Using groups to enhance volunteerism. *Administration in Social Work*, 33(1), 61-80.

- Hidalgo, M. C. & Moreno, P. (2009). Organizational socialization of volunteers: The effect on their intention to remain. *Journal of Community Psychology, 37*(5), 594-601.
- Jamison, I. B. (2003). Turnover and retention among volunteers in human service agencies. *Review of Public Personnel Administration, 23*(2), 114-132.
- Kulik, L. (2007). Explaining responses to volunteering: An ecological model. *Nonprofit and Voluntary Sector Quarterly, 36*(2), 239-255.
- Lammers, J. C. (1991). Attitudes, motives, and demographic predictors of volunteer commitment and service duration. *Journal of Social Service Research, 14*(3), 125-140.
- Miller, L. E., Powell, G. N. & Seltzer, J. (1990). Determinants of turnover among volunteers. *Human Relations, 43*(9), 901-917.
- National Gardening Association. (2009). *The impact of home and community gardening in America*. South Burlington, VT: Butterfield, B.
- Rohs, F. R. (1986). Social background, personality, and attitudinal factors influencing the decision to volunteer and level of involvement among adult 4-H leaders. *Nonprofit and Voluntary Sector Quarterly, 15*(1), 87-99.
- Ryan, R. L., Kaplan, R. & Griese, R. E. (2001). Predicting volunteer commitment in environmental stewardship programmes. *Journal of Environmental Planning and Management, 44*(5), 629-648.

Spitz, R. T. & MacKinnon, J. R. (1993). Predicting success in volunteer community service. *Psychological Reports, 73*, 815-818.

Stevens, E. S. (1991). Toward satisfaction and retention of senior volunteers. *Journal of Gerontological Social Work, 16*(3), 33-41.

Toppe, C. M., Kirsch, A. D. & Michael, J. (2001). *Giving and volunteering in the United States, 2001*. Washington, D.C.: Independent Sector.

## **Chapter 2**

### **Adult Volunteer Retention in an After-School Garden Club Setting:**

#### **A Case Study**

## **Introduction**

Once a fixture of American schoolyards during the early 1900's, school gardens in the United States, are again growing in popularity. It is estimated that one-fourth of all public and private schools in the U.S. have a school garden (Carter, 2010) and an estimated 6000 school gardens can be found in the state of California alone (The California Foundation for Agriculture in the Classroom as cited in Correa, 2010). School gardens are a site for experiential learning and are utilized to teach science, environmental education, agricultural education, mathematics, language arts, health and nutrition, ethics, social studies and history (De Marco, Relf and McDaniel, 1999; Graham, Lane Beall, Lussier, McLaughlin & Zidenberg-Cherr, 2005). There are numerous anecdotal benefits found to be associated with school gardens, such as increased environmental awareness, self-esteem and sense of responsibility; school gardens motivate students to learn and promote student achievement and teamwork; school gardens increase school pride and sense of school ownership (Ozer, 2007; Pranis, 2004). Taking into account these observed benefits and research findings linking increased science scores (Klemmer, Waliczek and Zajicek, 2005; Smith and Mostenbocker, 2005), increased preferences for and/or consumption of fruits and vegetables (Lineberger and Zajicek, 2000; McAleese and Rankin, 2007; Morris and Zidenberg-Cherr, 2002) and increased physical activity levels (Twiss et al., 2003) with school gardens, it is no wonder that there has been an eight-fold increase over the past decade in teacher requests for school garden materials (Carter, 2010). Furthermore, with the support of First Lady Michelle Obama, who endorses the establishment of school gardens as a way to create healthier lifestyles among America's youth, gardens are becoming an appealing addition to the school landscape.

No matter how popular they may become, school gardens are not without their challenges.

Funding, teacher involvement, support of the principal, volunteer help, garden coordination,

maintenance assistance and site availability are all factors found to contribute to the success of school gardens (Azuma, Horan and Gottlieb, 2001; De Marco, 1997; Greenwold Derks, 2008). As is evidenced by these findings, school gardens require ample support in order to be successful. Volunteers can be a key component of a school garden's success by helping to alleviate some of the burden felt by teachers and administrators trying to maintain a school garden. In an effort to identify the nature and extent of school garden programs in the Los Angeles Unified School District (LAUSD), as well as the opportunities and barriers associated with the formation and continuation of such programs, Azuma et al. (2001) surveyed 131 elementary schools in the LAUSD and discovered "teacher overload" to be the number one reason for ending a school garden program and the second most given reason for the absence of a school garden. Furthermore, a little less than half (45.3%) of the 236 schools surveyed by De Marco (1997) who had received a Youth Gardening Grant from the National Gardening Association, believed school gardens could not be successful without the availability of volunteer help. In addition to providing labor assistance and garden coordination, volunteers with gardening experience can help teachers new to gardening, facilitate school garden activities. Teachers' gardening knowledge was believed to be a determinant of the success of school gardens (De Marco, 1997).

According to the Bureau of Labor Statistics (2010), 63.4 million Americans were involved in at least one volunteer experience between September 2008 and September 2009, a 1.6 million increase in participation from the year before. These volunteers contributed 8.1 billion hours of service, equaling \$169 billion worth of labor (Corporation for National and Community Service, 2010). Religious organizations received the most volunteer assistance between 2008 and 2009



(34% of all volunteers) followed by educational and youth service related organizations (26.1% of all volunteers) (Bureau of Labor Statistics, 2010).

Even though the rate of volunteerism in the United States increased from 26.4 percent in 2008 to 26.8 percent in 2009, roughly one-third (34.5%) of the individuals who volunteered in 2008, did not volunteer again in 2009 (Corporation for National and Community Service, 2010; Corporation for National and Community Service, 2008). This data reveals the potential instability of volunteer networks and due to the nature of volunteerism-willingly giving of oneself without compensation-volunteer retention can be a complex task for organizations wishing to utilize this free labor force. Moreover, due to the time required and costs involved in training new volunteers, retaining volunteers can be crucial to saving both time and money for any organization.

Volunteers come from a diversity of backgrounds and bring with them varied personalities, attitudes, obligations, personal histories and levels of expertise. These factors can make it difficult to pinpoint exactly what causes an individual to stop volunteering. Furthermore, motivations for volunteering can change throughout a volunteer's term of service. Upon surveying 300 social organization volunteers, Chacón, Vecina and Dávila (2007) found that "the variables influencing service duration in the short term are different from those that influence it in the medium and long term" (p. 637). Knowing what specific variables affect one's decision to remain volunteering, can be useful to organizations looking to increase their volunteer retention rates.

Several studies have examined the potential determinants of volunteer turnover (Cnaan & Cascio, 1999; Gidron, 1985; Hidalgo & Moreno, 2009; Kulik, 2007; Miller, Powell & Seltzer,

1990). Research has shown that volunteer satisfaction, commitment, burnout and/or duration of service, are dependent on many different variables including, but not limited to: age, marital status, level of education, income, personal volunteer history, degree of organizational and social support, task achievement and the development of a volunteer role identity. Volunteers who are older, are married, have obtained a higher degree of education, feel supported by the volunteer organization and their fellow volunteers, feel that their time is being well spent and who have allowed their volunteer role to become part of their personal identity, are more likely to feel satisfied with their volunteer experience, commit more time to the organization and/or experience lower levels of volunteer burnout (Boezeman and Ellemers, 2007; Bureau of Labor Statistics, 2010; Chacón, Vecina and Dávila, 2007; Cnaan & Cascio, 1999; Gidron, 1985; Haski-Leventhal and Cnaan, 2009; Hidalgo & Moreno, 2009; Kulik, 2007; Lammers, 1991; Miller et al., 1990; Stevens, 1991; Toppe, Kirsch and Michael, 2001).

The research findings above highlight studies focusing on the variables affecting the retention of human and social service volunteers, community center volunteers and fundraising volunteers. No research, however, has yet to investigate the variables affecting length of volunteer service in an after-school garden club program setting. The growth and success of school gardens will depend in part on the support of volunteers. Discovering what motivates school garden volunteers to remain volunteering, will aid in the success of school garden programs. The following research study sets out to determine the specific variables influencing after-school garden club program volunteers to continue volunteering after one semester of service.

## **Methodology**

### ***Design and Participants***

This study was designed to qualitatively evaluate the unique characteristics of long-term volunteers in an after-school garden club program setting in Manhattan, Kansas. For the purposes of this study, a long-term volunteer was operationally defined as any individual who committed more than one semester of volunteer service to a two-year, four-semester after-school garden club program. A case-study of these long-term volunteers was carried out from July to October 2010. A total of 31 volunteers met the minimum requirement for participation in this study. There were two main types of volunteers: garden club, those who helped to facilitate the actual program with 4<sup>th</sup> and 5<sup>th</sup> graders and garden maintenance volunteers, those who worked behind the scenes to help maintain the garden when the program was not in session. Nineteen of the 31 long-term volunteers were garden club volunteers, eight were garden maintenance volunteers and four were both a garden club and garden maintenance volunteer. The long-term volunteer pool consisted of parents, community members and university students.

In June 2010, all 31 long-term volunteers were contacted by phone or e-mail to participate in the study. Twenty-two of the 31 volunteers responded and were willing to participate and twenty were chosen. Volunteers were selected based on their volunteer position (garden club, garden maintenance or both), status (parent, community member or university student) and level of overall participation. The latter was determined from garden club attendance records, total number of semesters involved and from personal accounts of fellow volunteer involvement (mainly from garden maintenance volunteers since attendance records of their participation were not kept). Volunteers with the highest rates of attendance and involvement and longest duration

of service, were given priority over those with lower levels of volunteer involvement. Of the 20 volunteers selected to participate in the study, 12 were garden club volunteers and eight were primarily garden maintenance volunteers, but did assist with garden club occasionally; six were school parents, eight were community members and six were university students.

The case-study consisted of individual interviews and a written questionnaire. A scripted interview was followed, asking participants what they learned from their volunteer experience, rewards of volunteering, frustrations, reasons for joining and reasons for continuing to volunteer, what they would change about their experience and what they would leave the same, gardening experience as a child, volunteer/teaching history, volunteer group dynamics and organizational support (Appendix A). The individual interviews lasted between 12 and 67 minutes.

Participants also completed a written questionnaire that included demographics questions (age, marital status, occupation, income, status if a university student and children attending after-school garden club program schools) and questions on the influence of the project on personal growth, level of volunteerism and gardening experience (Appendix B). The interview questions and questionnaire were created based on the research literature on volunteer retention (Pleskac, 2009; Hager & Brudney, 2004; Wolford, Cox & Culp III, 2001; Culp III, 1997). Volunteers who participated in the case-study were given a ten dollar gift card for their participation. From this point forward, volunteers who took part in the case-study will be referred to as case-study volunteers.

### ***Evaluation and Analysis***

After all interviews were transcribed verbatim, they were evaluated using QSR International's NVivo 9 software program (Doncaster, Victoria, Australia), a qualitative analytical software that

uses a process called ‘coding’ to organize the transcript data into more user-friendly ‘nodes.’ Individual nodes were created in NVivo to describe main themes found throughout the 20 transcripts. Many of the main themes were derived directly from the case-study interview questions. The remainder of these themes were created either by combining interview questions or utilizing a question from the case-study written questionnaire. The main themes, also known as parent nodes, were then broken down into subthemes, or child nodes, in order to describe the data in greater detail. In some cases, these subthemes were broken down even further if the primary researcher felt it would be beneficial to understanding the data. The transcripts were coded separately by an unbiased researcher not involved in the after-school garden club program and the primary researcher. Inter-rater reliability was tested by comparing the themes/nodes of the two coders. If a coding disagreement was discovered during the comparison process, both parties made their case for the node until a consensus was reached, leaving the node in place or removing it from the final project. This process resulted in a final coded project of all 20 interviews that contained a total of 399 parent and child nodes (Appendix C).

In order to determine the best way to analyze the data, the primary researcher began by isolating all of the main themes (parent nodes) that had responses from at least 95% (19 out of 20) of the case-study volunteers. This resulted in a total of 11 main themes. The primary researcher then ranked the top five subthemes (child nodes) under each of the 11 main themes according to 1) the total number of case-study volunteers (n) that referred to each subtheme during their interview and 2) the total number of times each subtheme was referenced by all case-study volunteers. If there was a tie in the ranking of the subthemes, the subtheme with the highest number of references was placed above the lower referenced subtheme with the same n-value. If there was a tie among the subthemes for fifth place, all of the fifth place subthemes were listed

under their main theme in descending order of references. From this list, the primary researcher found four of the main themes to have similar top five subthemes. These four main themes include: “motivation for joining,” “motivation for continuing,” “rewards and benefits” and “what volunteers learned/gained” (See ranking of subthemes in Table 4). The first three main themes listed above were derived directly from the interview questions (Appendix A) and the fourth main theme was developed from two interview questions that sought to discover 1) what volunteers learned from their volunteer experience, and 2) how the gardening program influenced their lives. For the latter question, participants were asked to elaborate on their response to a question in the written questionnaire that had eight defined responses: personal growth, friendships created, increased community connections, enhanced learning opportunities, source of creativity, sense of belonging, increased self-confidence and improved social skills. The primary researcher then used the similarities found among these four main themes as well as the demographic characteristics of long-term after-school garden club program volunteers to determine the variables influencing volunteers to continue volunteering for an after-school garden club program after one semester. The main themes of “proposed changes,” and “no changes” and “volunteer frustrations,” a subtheme of “fellow volunteers,” and their corresponding top subthemes were also used for analysis and to draw conclusions about long-term after-school garden club program volunteers.

## **Results**

### ***Descriptive Characteristics of All After-School Garden Club Program Volunteers***

Prior to volunteering, all individuals participating in the after-school garden club program, completed a written questionnaire and volunteer training. One-hundred and thirty-four

individuals completed both in the two years of the after-school garden club program. According to the demographic data collected, volunteers ranged in age from 12-88 with a median age of 22. A majority of the volunteers were university students (63.4%) and were between the ages of 18-23 (61.2%). A majority were female (77.6%), white (91.8%), single (67.2%) and had completed some college or an associate's degree (61.9%). Most were either working a part-time job (43.3%) or were unemployed at the time they signed up to volunteer (34.3%), were child-less (73.1%) and had a garden at the time of sign-up (63.4%). A majority (69.4%) of the 134 volunteers who signed-up to volunteer, participated in the garden club portion of the program (Table 1). Furthermore, almost one quarter of all after-school garden club program volunteers had experience in agriculture/farming (24.6%). A smaller percentage of all volunteers had experience in landscaping (14.9%), floral design (3.0%), teaching or extension experience in agriculture, botany and/or horticulture (7.5%) and nursery/greenhouse production (9.0%) (Table 2).

**Table 1. Descriptive characteristics of adult volunteers for an after-school garden club program for 4<sup>th</sup> and 5<sup>th</sup> graders**

	After-School Garden Club Program <sup>z</sup>		
	All volunteers (n=134)	Long-term volunteers	Case-study volunteers
Variable	Percent (n)	Percent (n)	Percent (n)
<b>Age</b>			
<13	.7 (1)	-	-
18-23	61.2 (82)	35.5 (11)	30 (6)
24-33	11.9 (16)	12.9 (4)	15 (3)
34-43	9 (12)	16.1 (5)	15 (3)
44-53	4.5 (6)	12.9 (4)	10 (2)
54-63	5.2 (7)	12.9 (4)	15 (3)
64 and above	7.5 (10)	9.7 (3)	15 (3)
<b>Gender</b>			
Female	77.6 (104)	74.2 (23)	80 (16)
Male	22.4 (30)	25.8 (8)	20 (4)

<b>Status<sup>y</sup></b>			
Student	63.4 (85)	38.7 (12)	30 (6)
Non-student	36.6 (49)	61.3 (19)	70 (14)
<b>Position</b>			
Garden Club	69.4 (93)	58.1 (18)	55 (11)
Garden Maintenance	8.2 (11)	29.0 (9)	25 (5)
Both	3.0 (4)	12.9 (4)	20 (4)
Other <sup>x</sup>	19.4 (26)	-	-
<b>Ethnicity<sup>w</sup></b>			
American Indian or Alaska Native	1.5 (2)	3.2 (1)	-
Asian	6.0 (8)	6.5 (2)	-
Black or African American	1.5 (2)	3.2 (1)	5 (1)
Native Hawaiian or other Pacific Islander	1.5 (2)	-	-
White	91.8 (123)	96.8 (30)	100 (20)
No response given	1.5 (2)	-	-
<b>Marital Status</b>			
Married	24.6 (33)	41.9 (13)	50 (10)
Divorced or separated	3.7 (5)	6.5 (2)	5 (1)
Widowed	1.5 (2)	6.5 (2)	10 (2)
Single	67.2 (90)	45.2 (14)	35 (7)
Not married, but living with a partner	3.0 (4)	-	-
<b>Education Level</b>			
Less than high school	.7 (1)	-	-
High school graduate or equivalent <sup>v</sup>	11.2 (15)	3.2 (1)	-
Some college or associate's degree	61.9 (83)	48.4 (15)	40 (8)
Bachelor's degree	15.7 (21)	22.6 (7)	30 (6)
Master's degree or above	10.4 (14)	25.8 (8)	30 (6)
<b>Employment Status</b>			
Full-time	14.2 (19)	25.8 (8)	20 (4)
Part-time	43.3 (58)	38.7 (12)	35 (7)
Unemployed <sup>u</sup>	34.3 (46)	25.8 (8)	30 (6)
Retired	8.2 (11)	9.7 (3)	15 (3)
<b>Children</b>	26.9 (36)	48.4 (15)	55 (11)
<b>Children at gardening school<sup>l</sup></b>	-	25.8 (8)	30 (6)
<b>Grandchildren</b>	10.4 (14)	19.4 (6)	30 (6)
<b>Have a garden<sup>s</sup></b>	63.4 (85)	77.4 (24)	90 (18)

<sup>z</sup> “All volunteers” refers to all individuals who completed the written questionnaire and volunteer training upon signing up for the after-school garden club program; “long-term volunteers” refers to any of the “all volunteers” who volunteered more than one semester; “case-study volunteers” refers to long-term volunteers who were selected to participate in this case-study.

<sup>y</sup> “Student” refers to volunteers who were university students at the time of their volunteer service with the after-school garden club program; “non-student” refers to volunteers who were not university students at the time of their volunteer service.

<sup>x</sup> “Other” refers to volunteers who either assisted with some other aspect of the after-school garden club program, primarily the initial construction of the school gardens, or who signed-up to volunteer and



completed the written questionnaire and volunteer training but dropped out of the after-school garden club program before it began.

<sup>w</sup> Multiple responses were allowed for this response category

<sup>v</sup> The actual number of volunteers whose educational level was ‘high school graduate or equivalent’ may be lower than the figures listed under “all volunteers” and “long-term volunteers” due to the considerable number of university students marking this field instead of “some college or associate’s degree” on the written questionnaire.

<sup>u</sup> Four of the case-study volunteers who are categorized as “unemployed” are actually stay-at-home parents. “Stay-at-home parent” was not a response choice under “employment status” in the written questionnaire given to all volunteers, however, it was a response choice under “employment status” on the written questionnaire given to case-study participants at the time of their interview.

<sup>t</sup> The number of “all volunteers” who had children at one of the gardening schools is unknown since it was not part of the larger study.

<sup>s</sup> This field does not specify whether the volunteer themselves took care of a garden or if the garden they are referring to is part of a family garden, which may be the case for university students who do not physically have a garden in the town in which they go to school.

**Table 2. Work experience in the fields of horticulture, agriculture and/or botany of adult volunteers involved in an after-school garden club program for 4<sup>th</sup> and 5<sup>th</sup> graders**

	School Garden Volunteers		
	All volunteers (n=134)	Long-term volunteers (n=31)	Case-study volunteers (n=20)
Work Experience	Percent (n)	Percent (n)	Percent (n)
Agriculture/farming	24.6 (33)	29.0 (9)	35 (7)
Landscaping	14.9 (20)	16.1 (5)	20 (4)
Floral design	3.0 (4)	-	-
Teaching or University Extension in Agriculture, Botany and/or Horticulture	7.5 (10)	3.2 (1)	5 (1)
Nursery/greenhouse production	9.0 (12)	9.7 (3)	15 (3)

### *Descriptive Characteristics of Long-Term Volunteers*

As previously stated, there were a total of 31 individuals who volunteered for more than one semester with the after-school garden club program and are considered long-term volunteers for the purposes of this study. There were some notable differences found among the long-term volunteers when compared to the larger population of 134 volunteers. A majority of the long-

term volunteers were non-students (61.3%) and were older than 18-23 years old (64.5%). The median age for this subgroup was 37, while it was 22 for the larger volunteer pool. A greater percentage of the long-term volunteers were married (41%) and the same number of long-term volunteers that had received some college or an associate's degree (48.4%) had received either a bachelor's degree (22.6%) or a master's degree or above (25.8%). A greater number of the long-term volunteers had children (48.4%) and 25.8% of those with children, had children at the after-school garden club program schools. Furthermore, a little over three-fourths of long-term volunteers had a garden at the time their volunteer commitment began (77.4%) (Table 1). Long-term volunteers had similar backgrounds in the fields of agriculture/farming (29.0%), landscaping (16.1%) and nursery/greenhouse production (9.7%) as all volunteers, however, a lower percentage of long-term volunteers (3.2%) had experience in teaching or university extension related to agriculture, botany and/or horticulture as compared to all volunteers (Table 2).

### ***Descriptive Characteristics of Case-Study Volunteers***

The majority of the long-term volunteers selected to participate in the case-study were over the age of 23, female, not a university student, volunteered for the garden club portion of the program as opposed to assisting with garden maintenance or both garden club and maintenance, all identified themselves as white, half of the case-study volunteers were married, all earned at least some college or an associate's degree and a majority of these volunteers had children (Table 1). Thirty percent of those with children, had children that were enrolled at the schools where the after-school garden club programs were located. Fifteen percent had children that were participating directly in the after-school garden club program. Over one-third of the case-

study volunteers had a background in agriculture/farming and one-fifth had experience in landscaping (Table 2).

In addition to completing a written questionnaire when they started with the after-school garden club program, case-study volunteers were also asked to complete a written questionnaire at the time they were interviewed for this study (Appendix B). When asked what their average level of volunteerism was over the past five years, 55% of the case-study volunteers responded that they volunteered frequently (once/week) or very frequently (more than once/week). A majority of the case-study volunteers reported experiencing “personal growth,” the formation of friendships and “increased community connections,” as a result of being involved with the after-school garden club program. While an overwhelming percentage of the case-study volunteers had gardens before joining the program (90%) (Table 1), only 65% of these volunteers said that they would identify themselves as gardeners before volunteering. The number of case-study volunteers who would classify themselves as gardeners rose 20% by the end of their volunteer service (Table 3).

**Table 3. Descriptive characteristics of adult volunteers that participated in a case-study of long-term volunteers involved in an after-school garden club program for 4<sup>th</sup> and 5<sup>th</sup> graders**

	<b>Case-study Volunteers (n=20)</b>
<b>Variable</b>	<b>Percent (n)</b>
<b>Level of volunteerism over past five years<sup>z</sup></b>	
Occasional	25 (5)
More than occasional	5 (1)
Fairly frequent	15 (3)
Frequent	30 (6)
Very frequent	25 (5)
<b>Gardener before volunteering</b>	65 (13)
<b>Gardener after volunteering</b>	85 (17)
<b>Ways in which the gardening program influenced volunteers’ lives<sup>y</sup></b>	

Personal growth	75 (15)
Friendships created	70 (14)
Increased community connections	55 (11)
Enhanced learning opportunities	50 (10)
Source of creativity	35 (7)
Sense of belonging	25 (5)
Increased self- confidence	25 (5)
Improved social skills	25 (5)

<sup>z</sup> “Occasional” refers to a few times a year; “more than occasional” refers to once a month; “fairly frequent” refers to a few times a month; “frequent” refers to once a week; “very frequent” refers to more than once a week.

<sup>y</sup> Multiple responses were allowed for this response category

### ***Primary Interview Response Themes***

The four main themes found below, “motivations for joining,” “motivations for continuing,” “rewards and benefits of the volunteer experience” and “what volunteers learned or gained from their volunteer experience,” were derived directly from the 11 main themes that had responses from at least 95% (19 out of 20) of the case-study volunteers.

These 11 main themes include:

- “fellow volunteers”
- “gardening”
- “children”
- “motivations for joining”
- “motivations for continuing”
- “future program participation”
- “proposed changes”
- “no changes”
- “rewards and benefits of the volunteer experience”
- “volunteer history”
- “what volunteers’ learned or gained from their volunteer experience”

### ***Motivations for Joining***

The motivational factor for deciding to volunteer for the after-school garden club program given by most case-study volunteers was “interest in gardening” with 75% giving this response (Table

4). This interest was not only expressed as a personal interest in learning about gardening or expanding upon existing gardening knowledge, it was also a motivation of three case-study volunteers who joined specifically to connect children with gardening:

I think kids should be gardening. That was a very easy call for me.

The opportunity to “work with children” was the second most common motivational factor for joining (50%). “Convenience” was another motivational factor for joining (30%). Some of the case-study volunteers lived near the garden club program school (n=2) or already spent time at the school as a classroom volunteer (n=1). Three case-study volunteers discussed how the opportunity to volunteer for the after-school garden club program was a good fit with their existing knowledge and interests and for one case-study volunteer it was the first volunteer opportunity that they found. Other motivational factors for joining were: “wanted to give back/community” (25%); to fulfill volunteer hours (20%); participate in a program their own children could benefit from or volunteer at a school their grandchildren attended (20%); agreed with the mission of the after-school garden club program, which was to create healthier lifestyles among 4<sup>th</sup> and 5<sup>th</sup> graders through gardening (20%); some simply thought the program sounded fun (20%); and some wanted to participate in an opportunity that would connect children with the environment (20%).

**Table 4. Interview responses of adult volunteers for an after-school garden club program with 4<sup>th</sup> and 5<sup>th</sup> graders that participated in a case-study of long-term volunteers**

<b>Motivation for joining (n=20)</b>	<b>Motivation for continuing to volunteer after one semester (n=20)</b>	<b>Rewards/benefits of the volunteer experience (n=20)</b>	<b>What volunteers learned/gained from their volunteer experience (n=20)</b>
Interest in gardening (15)	Good volunteer cohort (15)	Working with children (19)	Increased community connections (17)

Wanted to work with children (10)	Good children (11)	Friendships created with volunteers and children(8)	Gardening (17)
Convenience (6)	Organizational support (11)	Increased gardening knowledge (6)	Leadership development (16)
Wanted to give back/community (5)	Concerned about the success of the program (10)	Being part of the program (4)	Personal growth (16)
Needed volunteer hours (4)	Fun experience/good program (9)	Increased community connections (3)	How to work with children (15)
Own children/grandchildren (4)	Learning opportunities (9)	-	-
Belief in mission of program (4)	-	-	-
Sounded fun (4)	-	-	-
Connecting children with the environment (4)	-	-	-

### ***Motivations for Continuing***

Although a majority of case-study volunteers initially volunteered due to the learning opportunities (“interest in gardening”) that the after-school garden club program presented, it was not the primary motivational factor affecting the case-study volunteers’ decision to continue volunteering. Instead, “good volunteer cohort,” was found to be the most common motivational factor influencing a majority (75%) of the case-study volunteers’ to continue volunteering after their first semester with the program (Table 4). Case-study volunteers mentioned the positive interactions that took place within their volunteer group:

...you didn’t feel like you were the only one giving your time or that nobody really appreciated you coming out to help, you know. We all liked each other and it was pleasant to see them every week. And nobody tried to get out of the uncomfortable

things like being in charge of the journal club. Everyone took turns and they were just really nice people to work with. So that definitely made it a lot easier.

The positive experiences the case-study volunteers had while working with the garden club participants (“good children”) and the support the case-study volunteers received from the volunteer organization (“organizational support”) also contributed to a majority (55%) of the case-study volunteers’ decision to continue volunteering. “Organizational support” can be broken down into subthemes including, “communication,” “curriculum,” “volunteer newsletter” and a “sense of belonging.” Case-study volunteers described the support they received from the organization:

I always felt very supported and had a lot of backup. And I felt like if I had any questions or concerns or anything I always felt like I had lots of people to go to.

Well, it seemed like you guys actually cared that we were volunteering so that definitely helped me do it the second semester too.

The other motivational factors found to influence a case-study volunteer’s decision to continue volunteering, relate to the after-school garden club program itself. Fifty percent of the case-study participants continued to volunteer because they were “concerned about the success of the program” and 45% felt it was a “fun experience/good program.” Four of the case-study volunteers who expressed concerns about the success of the program were worried about future volunteer participation in the program, especially from the surrounding community; three case-study volunteers not only felt that the children involved in the program counted on the garden club, but they also mentioned experiencing the excitement of the children involved and they wanted to ensure that the opportunity continued to be available for the children; two case-study

volunteers who had younger children at the gardening school who were not old enough to participate in the gardening program wanted to ensure that the program was in place for their children once they were old enough. Case-study volunteers mentioned how the enthusiasm of the children participating in the after-school garden club affected their decision to continue volunteering with the after-school garden club program:

...the kids liked it and counted on it. They counted on it and wanted to see it through and were excited about growing stuff.

...you could tell that the kids were having fun with it and gaining a lot from it, and that was probably one of the main schools that needed something like that for the students.

So I really wanted to make sure that they were able to continue with that.

“Learning opportunities” including opportunities relating to gardening, working with children and those in general, were found to influence 45% of the case-study volunteers’ decision to continue volunteering (Table 4).

### ***Rewards and Benefits of the Volunteer Experience***

Eleven different volunteer rewards/benefits were found to be a product of the after-school garden club program. Of these, “working with children” was the most common response and was discussed by almost all of the case-study volunteers (95%) (Table 4). This response can be broken down into several different subthemes such as: the “excitement of the children,” “impacting children’s lives,” and “seeing children develop” through the program. Case-study volunteers discussed how the energy and excitement of the garden club children was rewarding:



At TR the kids really liked it whenever I came. They just got excited, so that was obviously rewarding. And like seeing them so proud of their garden beds. Like at Amanda Arnold there were some girls that just had these incredible beds, and they loved showing them off and that was really rewarding because it was like everything we taught them they were doing.

I think the best thing about it was the kids. I'd always be coming from work, and many days at work were stressful and tiring, and it seemed like when I was with those kids and around their enthusiasm for gardening and growing their own vegetables and fruits and then being able to eat them, they were just so enthusiastic and so, I don't know, lively that I couldn't help but perk up and pep up. Sometimes they just made my day.

“Friendships created with volunteers and children” was the second most common response with 40% of case-study volunteers mentioning this reward/benefit. Case-study volunteers mentioned expanding their social network:

Oh, I made lots of friends. I made friends with the kids. And you always have some that you just connect with especially well. And the students, the K-State students, I don't have a lot of contact with K-State students so that was kind of cool. I felt like we were friends. And then some of the other adults closer to my age that were volunteering, you know, I made friends with them too.

“Increased gardening knowledge” was a benefit expressed by 30% of the case-study volunteers and “being part of the program” was found to be rewarding among 20% of these volunteers. In terms of “being part of the program,” case-study volunteers expressed feeling a sense of ownership over the after-school garden club program and a sense of belonging to something

larger than themselves. They also expressed pride in being involved in a well-designed and well-supported program:

I felt like wow, this is my garden club too. I mean, it was the kids' garden club but it was my garden club, and I was kind of proud to be part of such a neat thing... the sense of belonging was, belonging to something good, something that was going to benefit kids and hopefully have a ripple effect to other kids. Kids they know, or maybe their family, their friends or something. So I felt like I was part of something really good that was going to benefit not only the kids in the club, but the time and hopefully the future.

Lastly, 15% of case-study volunteers found “increased community connections” with the school community, the volunteers and/or with the managing organization, to be a rewarding feature of the after-school garden club program. One case-study parent volunteer mentioned building connections with other parents at the school she volunteered at due to her “new” role as a gardener:

It's nice to have an identity at the school as being a gardener, you know, because I've always been a gardener but maybe other people didn't know that. So it's nice to sort of be the, you know, one of the moms that people can ask questions about. Conversations started for instance with other parents just sitting around waiting for our kids after school. Somebody asked me, “Well, how do you build a compost pile?” And you get categorized then as somebody who might know the answers to green questions.

### ***What Volunteers Learned or Gained From Their Volunteer Experience***

“Increased community connections” was found to be the number one feature that case-study volunteers gained from their experience with the after-school garden club program (Table 4).

Eighty-five percent of the case-study volunteers mentioned building relationships with fellow volunteers, particularly with the university student volunteers and with the children involved in the program, with the school community including parents, and with the community surrounding the school. Case-study volunteers who were university students at the time of their volunteer service, mentioned increasing their connections with the community outside of the university:

Increased community connection, I mean, coming to Kansas State I really haven't, you don't spend much time out in like Manhattan community, you know. There are quite a few people that live here all year round and they are not like involved with the University at all. And it's good to kind of get out and have that connection.

Well, I mean because I'd been involved with the Ogden School for my early field experience, but to be there a second time during the day for the Garden Club, I really got to know the faculty a little bit better and, you know, when I would walk in they would ask me about how my day was going or so forth. So that was really cool, and especially since I'm an education major. And then like some of the volunteers that I worked with, you know, we've added each other on Facebook and you know, so we keep in touch that way and what not, and like I don't know, I guess...

Learning about some aspect of gardening was also an outcome of the volunteer experience for 85% of the case-study volunteers. Five case-study volunteers mentioned learning how to garden through their participation in the after-school garden club program, five case-study volunteers learned how to best teach children about gardening and 16 case-study volunteers mentioned gaining new gardening knowledge. Some of the case-study volunteers who were new to

gardening when they signed-up to volunteer for the after-school garden club program, discussed learning about gardening right along with the children:

Learning about gardening and learning with them about gardening and just how to create that whole thing. I just had never been around it before, but I always wanted to learn, so it was really cool to have that opportunity to learn on a kid's level, you know, and see the experience, be part of the experience and really make it happen for the kids too.

Like, I learned stuff while we were going too. Like I didn't know anything about gardening, so I learned stuff about some of the different like lessons that they were talking about and like the different types of plants and stuff they were talking about, so that was kind of cool too. Like not only was I teaching them but I was like learning myself.

Eighty percent of case-study volunteers enhanced their leadership skills through their participation in the garden club program. A majority of these volunteers gained experience as a leader by leading garden club activities independently (n=10), co-leading an activity with another volunteer (n=7) and/or taking charge of disciplinary issues arising during the garden club sessions (n=7). Several case-study volunteers also mentioned gaining confidence in their ability to teach children (n=6):

The enhanced confidence for sure. Having the ability to get up and talk in front of kids and not – I mean it's harder to talk with kids than with people your own age because kids don't understand the way you talk, you know. If you use more advanced words and whatnot, and so you have to really think about what you say and say it in a way that they will understand. But, you know, not to be condescending. They're not babies. They're

really smart. The kids that we were working with were very, very smart kids. So just finding that balance, and just having the confidence to talk with them and handle the giggling and, you know, their own personalities.

Like it just made me kind of get outside my box a little bit. Because a lot of times I would be in charge of something and so like I had to be responsible for it and I would just show up, and like the first semester I was really nervous and stuff and wouldn't have dared wanting to be a leader or whatever. But then the second semester I was like yeah, I could do that, after I had a little bit of practice with it.

A majority of the case-study volunteers (80%) experienced personal growth as a result of their involvement in the after-school garden club program. Case-study volunteers reported experiencing an increase in self-confidence (n=9), exploring new interests such as gardening (n=3), feeling good about their participation in the program (n=3) and improving upon their ability to interact with others, specifically children (n=5) and fellow volunteers (n=6). Case-study volunteers also learned more about themselves through their experiences working with the after-school garden club children:

Oh, yes, I think being around the kids always grows me personally, and just being in a teaching role and being around kids and being kind of, that's not the role I have professionally, but it's a role that I enjoy. I enjoy teaching. I enjoy trying to inspire some creativity and learning in others. That would be where I would say personal growth happened.

Personal growth, I just thought, you know, any time you spend time with kids I feel like you're going to learn something about yourself just because, I don't know, they seem like they are all over the place. It kind of brings out what you need to know in yourself.

“How to work with children” was the fifth most common learning outcome of the volunteer experience for case-study volunteers. Seventy-five percent of case-study volunteers mentioned some aspect of this outcome. A majority (80%) of these volunteers discussed learning better ways to manage children whether it be managing the behaviors of children (n=12) or learning how to communicate with children more effectively (n=4). A majority of case-study volunteers (60%) also reported acquiring new teaching skills, some learned more about themselves through their experiences working with the garden club children (n=4) and some discussed learning the importance of staying organized in relation to facilitating an after-school garden club program for children (n=3):

Well, I mean, I've been a leader for 4-H and I taught Sunday School and, you know, I have younger cousins and sisters and stuff so, I mean, I kind of, you know, was experienced a little bit. But, in that setting it was a whole new experience because there were things that, you know, could happen and you're walking with the kids from school to the garden, you know. So, I say organization from before where you set out to do anything was a big part that helped out a lot because some days the kids, you know, were cooperative, other days they had their own ideas in what they wanted to do and they would test you on that. But, I don't know, it just varied.

Through their participation in the after-school garden club program, case-study volunteers learned that children learn in their own way:

Improved social skills I feel was a really good blend, especially with the kids because sometimes being at a college level you know there's a hustle and bustle and things are pretty straight forward so you follow the straight line. But with kids you kind of have to learn to let go and really, you know pay attention, but let things slide. Not everything is so important that they have to dig the hole the right way or put the seed in a certain place, you know. Kids will be kids and that was kind of something that I had to learn. Kind of let them do what they want to do and they are still learning, and they are still doing a good job.

But, I did struggle sometimes with feeling that the kids weren't learning as much as they could. But, I'm very idealistic. I really wanted them to learn about it. Then I relaxed and went, you know, they're learning and they're learning in a really wonderful kind of fun, after school atmosphere.

### ***Proposed Changes According to Case-study Volunteers***

During the interview process, each case-study volunteer was asked what they would change about the after-school garden club program if they had a chance. Nineteen of the 20 case-study volunteers would change something about the program. A majority of these volunteers (63.2%) would change the level of overall volunteer involvement from the community-at-large, parents and teachers at the gardening schools and from current volunteers in terms of their level of preparation for garden club (Table 5):

But I was disappointed that they weren't able to come up with whatever they need adults out of that community.

One case-study volunteer mentioned that having more volunteers with gardening knowledge would have been helpful. Six of the twelve case-study volunteers that are grouped under this response, discussed increasing their own involvement in the after-school garden club program, whether it be attending more of the after-school garden club sessions (n=2) or being more reliable and consistent (n=3):

Well, just I think I learned that I need to be more regimented in, in offering my volunteer time because there were times that I wasn't able to go as frequently as I would have liked to. So I needed to have a better schedule.

Other case-study volunteers discussed committing more time to garden maintenance (n=2) and/or taking the time to get to know their fellow volunteers (n=1):

Well, it would have helped me more to have actually met my volunteer group. I didn't do that, and that's partly because I didn't show up for the big day, work day kind of activities. But, that would have made a bigger difference I think if I would have known who else I was actually working with.

Finally, some case-study volunteers also mentioned having increased participation from the children at the gardening schools both during the school year and during the summer months when the gardens were most productive (n=2).

**Table 5. Case-study volunteers' interview responses to what they would and would not change about the after-school garden club program for 4<sup>th</sup> and 5<sup>th</sup> graders they were a long-term volunteer for**

What Volunteers Would Change (n=19)	What Volunteers Wouldn't Change (n=20)
Increased involvement from fellow volunteers, teachers, self, parents and children (12)	Program management (17)



More communication and/or awareness from volunteers, community, gardening school and program management (10)	Trainings (14)
Physical facilities (7)	Newsletters (13)
Garden Club activities/curriculum (6)	Curriculum (12)
Child management (6)	Volunteer feedback sessions (9)

A majority of the case-study volunteers that would change something about the after-school garden club program (52.6%), would change the level of communication and/or awareness during their time as a volunteer. Eighty percent of the case-study volunteers listed under this response would have liked to have experienced more communication from their fellow volunteers with the biggest challenge being the lack of communication between the two groups of volunteers. Case-study volunteers who took on garden maintenance roles with the after-school garden club program, complained that garden club volunteers weren't letting them know what needed to be done regarding watering, weeding, etc. (n=5):

More communication with either the [after-school garden] club or, like I had communication with you, but like the [after-school garden] club didn't seem to ever tell me what they wanted done or what they needed done, unless I actually went there during club and found one of them, which meant I had to leave [work] early and go, so, it was just lack of communication.

One garden club case-study volunteer wished the relationship between the two groups of volunteers (garden club and garden maintenance) had been stronger:

Yeah, those two distinct groups, maintenance and then the people who were working with the kids. And, you know, this is in an ideal situation, everybody needs to feel that they're really part of the team. And so I wish that we had all been together there, the

maintenance people – maybe they were like at the beginning of the, when I missed the beginning of the first semester maybe I didn't meet those maintenance people and then it kind of carried on that the maintenance people were always these shadow figures.

Other garden club case-study volunteers mentioned the lack of notification from fellow volunteers when they were going to miss an after-school garden club session, which made it hard for the volunteers in attendance to plan for the day (n=2):

I think the most frustrating thing was not knowing how many volunteers, adult volunteers would show up. We had a couple of days that I remember that were very stressful, and we couldn't really accomplish the goals that were set out, and the objectives set out in the very well-prepared lesson because we just didn't have enough adults. The ratio of the kids to adults just wasn't – and I think if we had known maybe that we weren't going to have as many show up we could have somehow, I mean, maybe called somebody else or...we could have made some switches if we had known.

Forty percent of the case-study volunteer responses listed under “more communication and/or awareness” would have liked more communication from the program management, specifically more notification and explanation about changes to the garden club curriculum (n=3) and more explanation about the responsibilities of the garden maintenance volunteers (n=1). Finally, forty percent of the case-study volunteer responses categorized under “more communication and/or awareness” would have liked to have seen more community awareness about the school gardens.

The third most common change case-study volunteers would like to see would be improvements to the garden itself such as better soil, increased security, water accessibility and raised beds.

The fourth most popular change given would be modifications to the garden club activities.

Case-study volunteers thought time would have been better spent doing more gardening activities than spending time on activities like journaling or crafts (n=5). The fifth most common change that case-study volunteers proposed was to have a better plan for managing the behaviors of the garden club children (n=6). One garden club case study volunteer mentioned wanting to have a better idea of how to best organize the children during the garden club activities in order to create the best learning experience for them.

### ***What Worked According to Case-study Volunteers***

Along with being asked what they would change about their volunteer experience, case-study volunteers were also asked what they would leave the same. In addition to case study volunteers' responses to this question, any response dealing with a positive aspect of the program, was coded under this main theme. The top five subthemes of this main theme can be found in Table 5. Eighty-five percent of the case-study volunteers mentioned liking the way the after-school garden club program was managed. Case-study volunteers appreciated the open-line of communication they had with after-school garden club program managers (n=9) and felt that the after-school garden club program leaders did an effective job of managing the volunteers and keeping things organized at garden club (n=8):

I felt, it was rewarding to know that I could call [program staff] or e-mail [program staff] or [the program leader] or anyone, and get an answer if I didn't know what was, how to proceed. That was, that was very helpful. And I never felt that we were at odds about anything. Sometimes I was a little, I think I was overbearing maybe, but no one ever made me feel that I was that way, and it was a happy experience.

For one case-study volunteer, the level of communication from the program management contributed to her decision to continue volunteering:

Well, I think it was very, I thought that was very good and probably mostly responsible for my continuing volunteering because it, that communication again if it's a regular thing and you feel like things are going forward then it's nice to be a part of that. But the regular communication was excellent.

Volunteer trainings were held at the beginning of each semester and it was required that all volunteers attend an initial training. Volunteers who continued to volunteer after one semester, were encouraged to attend future trainings. Seventy percent of the case-study volunteers liked the volunteer trainings. Case-study volunteers felt that the trainings were useful (n=1), good (n=3), fun (n=1), helpful (n=2) and educational (n=1). One case-study volunteer mentioned learning how to manage behavior issues at garden club and another felt more aware of the mission of the program after attending the training. Two case-study volunteers also enjoyed the opportunity to meet other volunteers and exchange ideas with these volunteers at the trainings.

Sixty-five percent of case-study volunteers enjoyed receiving the weekly volunteer newsletter. The volunteer newsletters relayed garden club curriculum updates, offered advice on gardening and working with children, answered volunteers' questions, contained a healthy recipe utilizing produce from the school gardens and highlighted different volunteers each week. Case-study volunteers found them to be helpful (n=3), educational (n=1), fun (n=2), great (n=2), cool (n=1), exciting (n=1) and an important line of communication between volunteers and program management (n=3).

The garden club program followed a pre-planned curriculum, which was given to all garden club volunteers by email each week (year one) or at the beginning of each semester (year two). There were four main activities that were to be carried out at each garden club session-snack time, a physical activity, time to garden and a plant science or nutrition lesson. Making crafts and journaling were recurring activities, but were not carried out at every garden club session. A majority of case-study volunteers (60%) mentioned liking at least one aspect of the after-school garden club curriculum, with the snack being the most popular activity mentioned (n=6):

And the snacks. I liked the healthy food that they provided, because it introduced a lot of kids to new stuff. I know a lot of those kids hadn't tasted some of that fruit before or even like a vegetable dip with vegetables. Some kids were really leery of that, but a lot tried it and liked it.

Physical activity was the second most popular activity mentioned by case-study volunteers (n=5) and gardening was the third most popular activity mentioned (n=4). One case-study volunteer found the curriculum to be helpful and even though the amount of information it contained was overwhelming for one case-study volunteer, she thought that it did allow room for self-expression. Another case-study volunteer mentioned incorporating her own knowledge into the lessons.

Volunteer feedback sessions were held once a semester during the second year of the program. These sessions allowed program management to listen to the concerns of the volunteers, to offer advice and to celebrate the accomplishments of the volunteers. They also gave volunteers a chance to share ideas about how to effectively carry out a garden club session. Forty-five percent of case-study volunteers discussed liking the feedback sessions. Case-study volunteers

enjoyed meeting other volunteers (n=2) and sharing ideas (n=3). They reported feeling like they were not alone in their volunteer endeavors (n=3) and they that they were part of something exciting after attending a feedback session (n=1).

### ***Volunteer Frustrations***

As stated earlier, case-study volunteers were questioned about the group dynamic of their volunteer group and were asked if they found anything about this dynamic to be frustrating. Eighty percent of the case-study volunteers discussed frustrations and/or challenges working with their volunteer group. The most cited frustration was level of consistency among volunteers and/or volunteer involvement (n=8). Most of the case-study volunteers who mentioned this frustration were frustrated with not knowing how many volunteers were going to show up each week (n=6), which they reported made things stressful (n=2) and made it difficult to accomplish the objectives of the garden club session (n=2). Three case-study volunteers were frustrated with the level of volunteer involvement from parents at the gardening schools and from the community-at-large. They hoped that more parents and community members would volunteer. Volunteer communication was the second most given frustration by case-study volunteers (n=7). Both garden club and garden maintenance case-study volunteers reported feeling frustrated with the level of communication that took place within their volunteer group (n=4):

Just some certain stuff that didn't seem to be working with this group. It might work perfectly with another school or another group, I don't know, but this specific group there were things that just didn't work that I felt like could have been remedied if we would have just switched it up a little bit. And my suggestions, you know, just kind of fell on deaf ears I guess.

Garden maintenance case-study volunteers were also frustrated with the lack of communication with the garden club volunteers (n=4) and one garden club case study volunteer expressed the same frustration towards the garden maintenance volunteers:

Sometimes it would have been nice if the Garden Club people had left us better information about what was being done and what they intended to do.

The third most popular case-study volunteer frustration was dealing with behavioral issues at garden club (n=7). One case-study volunteer mentioned being frustrated with behavior issues at garden club because it was not something he/she signed up for as a volunteer. Two case study volunteers were frustrated that none of the other volunteers wanted to take on the disciplinarian role at garden club:

I think was one of the main things that a lot of volunteers struggled with was nobody wanted to take on the disciplinary role. If you don't have that going on well then you can't get anything accomplished.

## **Discussion**

### ***Analysis of Long-Term Volunteer Demographics***

#### ***Age***

Age is a determining factor found to predict initial volunteer involvement and length of volunteer service (Bureau of Labor Statistics, 2010; Cnaan and Cascio, 1999; Hager and Brudney, 2004; Kulik, 2007). Americans between the ages of 35-44 years old and 45-54 years old are the most likely age groups to volunteer (Bureau of Labor Statistics, 2010). Furthermore, a positive correlation has been found between length of volunteer service and the age of the volunteer with

the length of volunteer service increasing as age increases (Cnaan and Cascio, 1999; Kulik, 2007). Results of this case-study correspond to these research findings. A majority of all after-school garden club program volunteers were university students between the ages of 18-23, however, this age group was not found to be the majority among long-term after-school garden club program volunteers (Table 1). The proportion of 18-23 year olds among long-term volunteers was 25.7% less than the proportion of 18-23 year olds found among all after-school garden club program volunteers. This decline caused a shift in the distribution of age groups from all volunteers to long-term volunteers resulting in a higher proportion of long-term volunteers 24 years old and above when compared with the proportion of all after-school garden club program volunteers in this same age range. In fact, volunteers 24 years old and above make up the majority of long-term volunteers. Furthermore, volunteers aged 34-43, 44-53 and 54-63 all showed a marked increase in the proportion of volunteers in these age categories when comparing all volunteers to the group of 31 long-term volunteers. A 7.1%, 8.4% and 7.7% increase respectively, was found among these age groups, leading the primary researcher to conclude that 34-63 year old non-university students are more likely than 18-23 year old university students to have longer terms of volunteer service in an after-school garden club program setting. Volunteers 24-33 years old only showed a 1% increase from all volunteers to long-term volunteers. Volunteers 64 and older also showed a slight increase from 7.5% of the overall volunteers to 9.7% of the long-term volunteers, however, this age group made up the lowest percentage of both groupings of volunteers. The distribution of case-study volunteers by age group was similar to the distribution of age groups among long-term after-school garden club program volunteers with a majority of case-study volunteers being over the age of 23 (Table 1).



### ***Marital Status***

Marital status has also been found to affect length of volunteer service. According to studies conducted by Cnaan and Cascio (1999) and Toppe et al. (2001), married individuals volunteer for longer periods of time than non-married individuals. They are also more likely to volunteer in general than their non-married counterparts. The opposite result was found to be true among all after-school garden club program volunteers. This is due to the large percentage of university students involved in the after-school garden club program. The overall percentage of non-married volunteers, including those that are divorced or separated, widowed, single and not married, but living with a partner (75.4%) is higher than the overall number of volunteers who are married (24.6%) (Table 1). However, when comparing overall volunteers to long-term volunteers, we see the proportion of single individuals decline by 22%, while the proportion of married volunteers increases by 17.3%. There is also a slight increase in the proportion of divorced or separated and widowed volunteers from the overall group of volunteers to the long-term volunteers. This increase might be attributed more to the age of the volunteer, than their marital status. These findings lead the primary researcher to suggest that married, divorced or separated and widowed volunteers are more likely than their single counterparts to continue volunteering for an after-school garden club program after one semester.

### ***Level of Education***

A higher degree of educational attainment can lead to greater initial volunteer involvement as well as higher levels of volunteer commitment in the long run (Burke and Hall, 1986; Lammers, 1991; Toppe at al., 2001). At the time of sign-up, a majority of the after-school garden club program volunteers had some college or an associate's degree (61.9%), while only 15.7% and 10.4% of volunteers had a bachelor's degree and master's degree respectively (Table 1). These

findings are contrary to the research described above, however, level of education does indeed become a predictor of volunteer commitment to the after-school garden club program.

Approximately 22% fewer volunteers with less than a bachelor's degree, continued to volunteer after one semester. Volunteers holding bachelor's degrees and above on the other hand, made up a greater proportion of the long-term volunteer base, with a 22.3% increase from the proportion of all after-school garden club program volunteers who had obtained a bachelor's degree or higher.

A majority of all after-school garden club program volunteers were university students at the time of their volunteer service (Table 1). This explains the high proportion of all after-school garden club program volunteers with a level of education of some college or an associate's degree. While university students are a dependable volunteer base for an after-school garden club program with 63.4% of the overall volunteer pool being comprised of this demographic initially, we see from the findings described above that volunteers who have earned a bachelor's degree or above are more likely to continue volunteering for such a program than their fellow volunteers who have yet to complete a four-year degree. Furthermore, the sustainability of an after-school garden club program is dependent on its long-term volunteers, a majority (61.3%) of whom in this case were not university students.

Project results demonstrate that individuals who are older than 23, are not single (married, divorced or separated, and widowed) and who have obtained a bachelor's degree or higher, are more likely to remain volunteering for an after-school garden club program than their younger, single, less-educated counterparts.

### *Analysis of Case-study Volunteer Responses*

*Children* (“working with children,” “own children/grandchildren,” “good children,”), *learning opportunities* (“interest in gardening,” “leadership development), *volunteer relations* (“good volunteer cohort,” “friendships created,” “increased community connections”), and the *program itself* (“belief in mission,” “sounded fun,” “concerned about success of program,” “fun experience/good program,” “being part of the program”), were found to be recurring subthemes among the case-study volunteer interview responses in at least three out of the four main themes in Table 4. Previous research findings can help to explain the link between these recurring subthemes and one’s intentions to continue volunteering with the after-school garden club program.

#### ***Volunteer Relations***

The social connections case-study volunteers formed while volunteering with the after-school garden club program, had a positive impact on their overall volunteer experience as well as their decision to continue volunteering with the program. In fact, 75% of case-study volunteers reported they continued to volunteer, in part, due to the positive relations they experienced with their fellow volunteers (Table 4). “Good volunteer cohort” was the number one response given by case-study volunteers in reference to their reasons for continuing by a margin of 20% over the second most popular response. Case-study volunteers also discussed the positive ways in which the friendships and community connections they formed through volunteering with the after-school garden club program were rewarding and had an influence on their life:

The volunteers, the relationships and the personalities of the volunteers definitely made it a good atmosphere to want to be a part of for the two or three hours...

Project results support reported research which found social networks among volunteers, relations between volunteers and peer communication, to be predictors of volunteer satisfaction and retention, length of volunteer service and volunteer burnout (Cyr and Dowrick, 1991; Gidron, 1985; Hidalgo and Moreno, 2009; Lammers, 1991; Stevens, 1991). It can be concluded that the relationships established among volunteers and between volunteers and the program participants, the program staff, the school community and the community at- large, affect one's overall volunteer experience in an after-school garden club program setting as well as their intention to remain volunteering for such a program.

### ***Organizational Support***

The results of this study are in line with previous research which found a positive relationship between organizational support and a volunteer's intention to remain a volunteer as well as their overall level of participation (Farmer and Fedor, 1999; Hidalgo and Moreno, 2009).

“Organizational support” was one of the key motivators found to affect a majority of case-study volunteers' decision to continue volunteering with the after- school after-school garden club program (Table 4). Farmer and Fedor (1999) found that fundraising health advocacy volunteers, who reported higher levels of organizational support, participated more in the organization. Organizational support also affected volunteers' intentions to withdraw from the advocacy organization. Volunteers who “felt valued and appreciated, and felt that the organization genuinely cared about their efforts and well-being,” had lower withdrawal intentions (Farmer and Fedor, 1999, p. 360). It can be concluded that organizational support can influence one's decision to remain volunteering with an after-school garden club program.

### *Volunteer Motivations*

Research has shown that the more a volunteer organization is able to meet the needs, expectations and motivations of its volunteers, the greater its level of overall volunteer participation, volunteer satisfaction and volunteer retention rates will be (Clary et al., 1998; Farmer and Fedor, 1999; Francies, 1983; Gidron, 1985; Rodriguez, 1983 as cited in Sitrin, 2000). In a study examining the variables affecting the retention behavior of volunteers, Rodriguez (1983) found a correlation “between an organization’s ability to meet its volunteers’ needs and its volunteer retention rate” (as cited in Sitrin, 2000, p. 19). In order to measure the impact volunteers’ initial expectations had on volunteer participation as well as withdrawal intentions, Farmer and Fedor (1999) analyzed “the extent to which volunteers saw the job as what it was expected to be when it was taken” (p. 357). They discovered that volunteers’ whose expectations were met, “participated more in the organization,” however, having expectations fulfilled, did not directly impact one’s withdrawal intentions (Farmer and Fedor, 1999, p. 359). Gidron (1985) identified predictors of volunteer retention by comparing personal, organizational and attitudinal variables of “stayers,” Israeli service volunteers who remained volunteering at a six-month follow-up, with “leavers,” service volunteers who had dropped out before follow-up. Through his comparison, Gidron (1985) found the “major predictors of retention in volunteer work include good preparation or the particular task, placement in a job in which the volunteer can find self-expression and where he feels his work can produce results, and all within an environment with positive peer interaction (pp. 14-15). Based on his findings, Gidron (1985) points out that volunteer agencies may be able to control volunteers’ intentions to withdrawal from the organization “by manipulating certain organizational variables; the most important of which is the individualization of the volunteers’ tasks (p. 15).

Instruments have been developed to more effectively match a volunteer's motivations and needs with the tasks they perform. Francies (1983) and Clary, Snyder and Ridge (1992) have shown a positive correlation between the degree of match and volunteer satisfaction, participation and intention to remain, utilizing the instruments they created. Recognizing the need to reduce volunteer turnover, Francies (1983) created and tested the "Volunteer Needs Profile," which was constructed to "measure the relative strength of a person's needs" in seven distinct focus areas (p. 20). Based on a monthly report form completed by social service volunteers over several years, Francies (1983) pinpointed seven different needs that "have been shown to be associated with the motive to become a volunteer" (p. 19). These needs include: the need for experience, the need to express feelings of social responsibility, the need for social contact, the need to respond to the expectations of others, the need for social approval, the need for future rewards and the need to achieve (Francies, 1983). Francies (1983) then used the "Volunteer Needs Profile" to match volunteers with specific tasks that met their needs as a volunteer and tested the effectiveness of the profile against using an interview method to carry out the matching. The "Volunteer Needs Profile" "increased the likelihood of obtaining a high degree of match between the needs of the volunteer and the task as compared to the interview method alone" (Francies, 1983, p. 29). Furthermore, Francies (1983) found that volunteers, whose needs were better matched to the volunteer task, were more satisfied with their volunteer experience, participated more and remained longer with the organization than volunteers whose needs were not addressed by the volunteer work.

Clary et al. (1992) developed the "Volunteer Functions Inventory (VFI)" "to identify the motivations behind volunteering" (p. 335). This inventory is based upon a functional approach that suggests that "underlying the decision to volunteer is a process by which individuals come to

see volunteerism in terms of their personal motivations” (Clary et al., 1998, p. 1528).

Furthermore, this approach proposes that if volunteers are assigned to activities that match their motivations for volunteering, they will be more satisfied with their volunteer experience and as such, will continue to volunteer. The VFI contains six different focus areas that “reflect the psychological and social functions of volunteerism” (Clary et al., 1998, p. 1519). These areas include: protective, values, career, social, understanding, and enhancement. After administering the VFI to university student volunteers at two distinct points in time, 12 weeks apart, Clary et al. (1998) found a link between volunteer satisfaction and intention to remain and the fulfillment of functionally relevant benefits. Volunteers who “perceived that their initial functional concerns had been met through their volunteer activity,” “were not only satisfied with their service but also intended to continue to volunteer in both the short-and long-term” (Clary et al., 1998, p. 1526). These results have important implications for volunteer managers wishing to increase volunteer retention rates. As Clary et al. (1992) point out, administrators who satisfy the needs and goals of their volunteers, “will foster an atmosphere in which volunteers receive more satisfaction from their work and will thus continue longer in their service (p. 345).

As stated earlier, four recurring themes, *children*, *learning opportunities*, *volunteer relations*, and *the program itself*, were found in at least three out of the four main response themes in Table 4. The above research findings help to shed some light on the importance of these recurring themes, especially their potential impact on after-school garden club program volunteers’ intentions to continue volunteering. Three of the four recurring themes (*learning opportunities*, *children*, and *the program itself*) can be found under the top five responses for both “Motivation for joining” and “Motivation for continuing to volunteer after one semester” (Table 4). Furthermore, all of the motivations for joining except “connecting children with the environment,” were given as

motivations for continuing. Due to the fact that case-study volunteers discussed the same motivations for becoming a volunteer and continuing to volunteer, it can be inferred that these long-term volunteers continued to serve because their initial motivations and/or expectations were met through their participation in the garden club program. Additionally, the presence of these three themes under the top five responses to “Rewards/benefits of the volunteer experience” and “What volunteers learned/gained from their volunteer experience” (Table 4), suggests that volunteers’ needs were being met by their volunteer experience. Case-study volunteers were not asked about their overall level of satisfaction as a volunteer, however, it can be implied from the results in Table 4 that these volunteers found their work to be satisfying because their primary needs were fulfilled, which in turn influenced their decision to continue volunteering.

While a “Volunteer Functions Inventory (VFI)” was included in the pre-survey administered to all volunteers at the time of sign-up, the results of the inventory were not used to match volunteers to assignments based on their initial motivations for volunteering. Instead, volunteers were matched to assignments based on their availability, garden school site preference and their interest in assisting with garden club, garden maintenance duties or both. It is possible that volunteers who dropped out of the program after one semester, had needs and expectations that were not met through their experience with the program. Furthermore, there may have been a larger number of long-term volunteers if the results of each volunteer’s VFI were used to match them to tasks that fit their initial motivations for volunteering. This would have been a large undertaking, and due to time constraints, it might not have been feasible, however it was not considered as an option when finalizing volunteer assignments. From a small sample (n=11) of volunteers who did not continue after one semester, it is known that a majority (54.5%) of this



sample self-reported that they were unable to continue volunteering due to scheduling conflicts. Two of these eleven volunteers self-reported that their expectations were not met.

### *Personal Growth*

The opportunity to learn something new was a motivational factor for case-study volunteers at sign-up and was influential in convincing some case-study volunteers to continue volunteering. Learning opportunities were also seen as rewards of the volunteer experience by 30% of the case-study volunteers and all of the case-study volunteers either discussed learning something new or enhancing their personal skills during their time as an after-school garden club program volunteer (Table 4). These results both coincide and conflict with previous research findings. After analyzing the motivations of AIDS volunteers, Omoto and Snyder (1995) conclude “AIDS volunteerism motivated by relatively more self-oriented motivations (such as developing personal skills and feeling better about oneself) leads to longer duration of service” (p. 681). Finkelstein (2008) found similar results in a study of hospice volunteers. Motivations for volunteering were different at a three-month and twelve-month follow-up for volunteers who remained with the organization for at least one year. After three-months, the amount of time volunteers committed to the hospice was found to be associated with the fulfillment of altruistic motives. At 12-months, volunteer involvement was less dependent on altruistic motives and more dependent on the fulfillment of personal growth motives. In contrast, social service volunteers who remained volunteering after eight years of service, expressed a lower degree of satisfaction for their motivations of knowledge (learning new and interesting things) and improved curriculum (gaining relevant professional skills) than volunteers who dropped out before completing one year of service (Vecina, Chacón and Sueiro, 2010). The long-term volunteers did however express greater satisfaction with motivations of improved self-esteem,

values (experience helps volunteer to express personal values) and defense of self (experience helps volunteers to forget their problems).

The opportunity to learn something new and to grow personally, are important outcomes of the volunteer experience for case-study volunteers. Moreover, the fulfillment of these motives can influence one's decision to continue volunteering for an after-school garden club program.

### ***Organizational Commitment***

According to Chacón et al. (2007), organizational commitment is the “sensation that one should do things despite the difficulties, because one endorses the organization and its objectives, its people and so on” (p. 630). Furthermore, Vecina et al. (2010), discuss organizational commitment as the “emotional link between volunteers and their organization” and found it to be a distinguishing factor between volunteers who dropped out of the organization before completing one year of service and volunteers who remained volunteering after eight years of service (p. 347). Vecina et al. (2010) used items such as: I am concerned about the future of the organization, I find that my values and the values of the organization are very similar, I am proud to be able to say that I am a part of this organization, from the Organizational Commitment Questionnaire developed by Mowday, Steers, and Porter (1979) and adapted by Dávila and Chacón (2003), to determine the organizational commitment of 240 socio-assistance volunteers in Spain.

The motivational factors of “concerned about the success of the program” and “fun experience/good program” found under “Motivations for Continuing” (Table 4), both express the organizational commitment of the after-school garden club program volunteers. In fact, when we pull out all of the responses coded under the response theme of “Motivations for Continuing”

that point to an emotional link between the volunteer and the organization (“concerned about the success of the program,” “fun experience/good program,” “belief in mission,” and “interested in program outcomes”), we see that 90% of the case-study volunteers expressed organizational commitment when discussing their reasons for continuing to volunteer (Appendix C).

Organizational commitment was also found to be a motivation for joining the after-school garden club program, but by a smaller number of case-study volunteers. Only 30% of the case-study volunteers initially volunteered because they believed in the mission of the program, felt the program was beneficial to children and/or were concerned about initial volunteer involvement in the program (Appendix C).

Taking into account Chacón et al.’s (2007) and Vecina et al.’s (2010) definitions of organizational commitment and the number of case-study volunteers who referenced this form of commitment in terms of their motivation for continuing, it can be concluded that organizational commitment played a large role in one’s decision to continue volunteering for the after-school garden club program.

### ***Volunteer Frustrations***

All of the case-study volunteer frustrations discussed in the results section, can also be found under the proposed changes given by case-study volunteers in Table 5. It is clear from these results that all of the long-term volunteers in this study encountered frustrations during their experience with the after-school garden club program, but for some reason or another, they chose to continue volunteering for another semester despite these frustrations. Vecina et al. (2010) found volunteers who remained with an organization after eight years had a significantly higher degree of emotional fatigue than volunteers who dropped out of the organization before

completing the first year. The authors suggest that this difference “may indicate that sustained volunteer activity involves diverse costs to sensitive volunteers” (Chacón et al., 2007, p. 348). As previously stated, when volunteers feel a sense of organizational commitment, they continue to participate despite the difficulties they might encounter because they believe in the mission of the organization (Chacón et al., 2007). The findings of this case-study are in line with the research on emotional fatigue and the idea behind organizational commitment. Even though long-term after-school garden club program volunteers experienced frustrations along the way, the organizational commitment they mentioned as a motivation for continuing (Table 4), allowed them to see past these frustrations and continue volunteering for another semester.

## **Conclusions**

Volunteers are more likely to continue volunteering for an after-school garden club program after one semester if they are over the age of 23, are married, divorced, separated or widowed, and hold a bachelor’s degree or above. Despite the frustrations after-school garden club program volunteers might encounter, long-term volunteers, those committing more than one semester to the program, continue to volunteer due to their organizational commitment; the positive relationships they forged with fellow volunteers, program participants, program staff, the school community and community members in general; the support they received from the volunteer organization; the learning opportunities they encountered and the opportunity to work with children. Furthermore, it can be concluded that long-term after-school garden club program volunteers continue to volunteer because their initial motivations, expectations and/or needs are met through their participation in the program.

## **Limitations**

This case-study is limited in scope since it did not take into account short-term volunteers, those dropping out of the program after one semester. The primary researcher is unable to make any comparisons between short-and long-term volunteers or draw any conclusions as to why a majority of the after-school garden club program volunteers chose not to continue volunteering. This information could help to validate the findings of this case-study if the reasons short-term volunteers did not continue were related to unfulfilled motivations and expectations, an absence of organizational commitment and positive relationships, and a feeling that organizational support and learning opportunities were lacking. As Clary et al. (1992) point out, volunteers “involved in the same activity can be attempting to satisfy very different motives, and second, that the same individual may seek to fulfill more than one motive” (p. 346).

Furthermore, this study is limited to the city in which the program was carried out. As previously pointed out, a majority of our total volunteer pool were university students. For some reason, the volunteer coordinator experienced difficulty recruiting parents at the garden schools to participate in the program. This may have been because the after-school garden club program was limited to 4<sup>th</sup> and 5<sup>th</sup> graders and those parents with younger children might not have seen the advantage of participating in a program their children could not participate in. The volunteer coordinator also experienced difficulty recruiting general community members. Perhaps if more parents and community members were involved in the after-school garden club program, this might have resulted in an increase in the number of long-term volunteers.

## **Implications for Practice**

Volunteer managers of after-school garden club programs would potentially benefit from administering the “Volunteer Functions Inventory (VFI)” or the “Volunteer Needs Profile” to volunteer candidates and utilizing the results to match volunteers with tasks that fit their initial motivations, expectations, concerns and/or needs. Volunteer managers must also be mindful of the fact that volunteers’ motivations for volunteering may evolve overtime as they participate in the volunteer activity. Clary et al. (1992) suggest administering the VFI at different points throughout a volunteer’s tenure in order to allow the volunteer manager to assess any changes in the motivations of the volunteer and modify volunteer assignments accordingly in order to satisfy the changing needs of the volunteer. Taking the time to match volunteers with specific tasks, could result in greater volunteer satisfaction and participation as well as higher rates of volunteer retention.

## **Future Research Needs**

Future research studies examining volunteer retention in an after-school garden club setting, should investigate the motives of both the short-and long-term volunteers in this setting to see if a distinction can be made between the two groups. Utilizing a tool such as the “Volunteer Functions Inventory” to evaluate volunteer motives, would be a good place to start.

## Literature Cited

Azuma, A., Horan, T. and Gottlieb, R. (2001). *A place to grow and a place to learn*. Occidental College, Los Angeles, CA: Center for Food and Justice, Urban and Environmental Policy Institute.

Blair, D. (2009). The child in the garden: An evaluative review of the benefits of school gardening. *The Journal of Environmental Education*, 40(2), 15-38.

Boezeman, E. J. & Ellemers, N. (2008). Pride and respect in volunteers' organizational commitment. *European Journal of Social Psychology*, 38(1), 159-172.

Bureau of Labor Statistics, U.S. Department of Labor. (2010). *Volunteering in the United States-2009*. Washington, D.C.

Burke, D. M. & Hall, M. (1986). Personality characteristics of volunteers in a companion for children program. *Psychological Reports*, 59, 819-825.

Carter, C. (2010, July 20). *Transcripts of school gardens with Constance Carter*. Retrieved from: <http://www.loc.gov/rr/program/journey/schoolgardens-transcript.html>

Chacón, F., Vecina, M. L. & Dávila, M. C. (2007). The three-stage model of volunteers' duration of service. *Social Behavior and Personality*, 35(5), 627-642.

Clary, E. G., Snyder, M. & Ridge, R. (1992). Volunteers' motivations: A functional strategy for the recruitment, placement, and retention of volunteers. *Nonprofit Management Leadership*, 2(4), 333-350.

- Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. A., Haugen, J. & Miene, P. (1998). Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology*, 74(6), 1516-1530.
- Cnaan, R. A. & Cascio, T. A. (1999). Performance and commitment: Issues in management of volunteers in human service organizations. *Journal of Social Service Research*, 24(3), 1-37.
- Corporation for National and Community Service. (Last Updated 2008, April 27). *Volunteering in America-Research frequently asked questions*. Retrieved from: [http://www.volunteeringinamerica.gov/about/research\\_faqs.cfm#volunteering\\_and\\_retention](http://www.volunteeringinamerica.gov/about/research_faqs.cfm#volunteering_and_retention)
- Corporation for National and Community Service. (2010). *Volunteering in America 2010 fact sheet*. Washington, D.C.
- Correa, T. (2010, April 26). Valley kids find fruitful labor in school gardens. *The Fresno Bee*. Retrieved from: <http://www.fresnobee.com/2010/04/25/1910392/valley-kids-find-fruitful-labor.html>
- Culp III, K. (1997). Motivating and retaining adult volunteer 4-H leaders. *Journal of Agricultural Education*, 38(2), 1-7.
- Cyr, C. & Dowrick, P. W. (1991). Burnout in crisisline volunteers. *Administration and Policy in Mental Health*, 18(5), 343-354.
- Dávila, M. C. & Chacón, F. (2003). Adaptation of instruments for assessing organizational aspects of NGO's. (2003). *Journal of Psychology of Work and Organizations*, 19, 159-179.



- De Marco, L. (1997). *The factors affecting elementary school teachers' integration of school gardening into the curriculum*. (Unpublished doctoral dissertation). Virginia Tech University, VA.
- De Marco, L. W., Relf, D. & McDaniel, A. (1999). Integrating gardening into the elementary school curriculum. *HortTechnology*, 9 (2), 276-281.
- Finkelstein, M. A. (2008). Volunteer satisfaction and volunteer action: A functional approach. *Social Behavior and Personality*, 36(1), 9-18.
- Farmer, S. M. & Fedor, D. B. (2003). Volunteer participation and withdrawal. A psychological contract perspective on the role of expectations and organizational support. *Nonprofit Management Leadership*, 9(4), 349-367.
- Francies, G.R. (1983). The volunteer needs profile: A tool for reducing turnover. *The Journal of Volunteer Administration*, 1 (4), 17-33.
- Gidron, B. (1985). Predictors of retention and turnover among service volunteer workers. *Journal of Social Service Research*, 8(1), 1-16.
- Graham, H., Lane Beall, D., Lussier, M., McLaughlin, P. & Zidenberg-Cher, S. (2005). Use of school gardens in academic instruction. *Journal of Nutrition Education and Behavior*, 37(3), 147-151.
- Greenwold Derks, L. (2008). *2008 South Carolina school garden survey results*. South Carolina: South Carolina Department of Agriculture.

- Hager, M.A. & Brudney, J. L. (2004). *Volunteer management practices and retention of volunteers*. Washington, D.C.: The Urban Institute.
- Haski-Leventhal, D. & Cnaan, R. A. (2009). Group processes and volunteering: Using groups to enhance volunteerism. *Administration in Social Work*, 33(1), 61-80.
- Hidalgo, M. C. & Moreno, P. (2009). Organizational socialization of volunteers: The effect on their intention to remain. *Journal of Community Psychology*, 37(5), 594-601.
- Klemmer, C. D., Waliczek, T. M. & Zajicek, J. M. (2005). Growing minds: the effect of a school gardening program on the science achievement of elementary students. *HortTechnology*, 15(3), 448-452.
- Kulik, L. (2007). Explaining responses to volunteering: An ecological model. *Nonprofit and Voluntary Sector Quarterly*, 36(2), 239-255.
- Lammers, J. C. (1991). Attitudes, motives, and demographic predictors of volunteer commitment and service duration. *Journal of Social Service Research*, 14(3), 125-140.
- Lineberger, S. E. & Zajicek, J. M. (2000). School gardens: can a hands-on teaching tool affect students' attitudes and behaviors regarding fruit and vegetables? *HortTechnology*, 10(3), 593-597.
- McAleese, J. D. & Rankin, L. L. (2007). Garden-based nutrition affects fruit and vegetable consumption in sixth-grade adolescents. *Journal of the American Dietetic Association*, 107, 662-665.

Miller, L. E., Powell, G. N. & Seltzer, J. (1990). Determinants of turnover among volunteers.

*Human Relations, 43*(9), 901-917.

Morris, J. & Zidenberg-Cherr, S. (2002). Garden-enhanced nutrition curriculum improves fourth-grade school children's knowledge of nutrition and preferences for some vegetables. *Journal of the American Dietetic Association, 102*(1), 91-93

Mowday, R. T., Steers, R. M. & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14*, 224-247.

Omoto, A. M. & Snyder, M. (1995). Sustained helping without obligation: Motivation, longevity of service, and perceived attitude change among AIDS volunteers. *Journal of Personality and Social Psychology, 68*(4), 671-686.

Ozer, E. J. (2006). The effects of school gardens on students and schools: Conceptualization and considerations for maximizing healthy development. *Health Education Behavior, 34*(6), 846-863.

Pleskac, S. (2009). *Wisconsin 4-H volunteers documenting their contributions and volunteer development*. Wisconsin: University of Wisconsin-Extension.

Sitrin, B. (2000). *Recruitment, training, and retention of volunteers in youth-serving organizations: A review of the literature*. Chicago University, Chicago, IL: Chapin Hall Center for Children.

Smith, L. L. & Mostenbocker, C. E. (2005). Impact of hands-on science through school gardening in Louisiana public elementary schools. *HortTechnology, 15*(3), 439-443.

- Stevens, E. S. (1991). Toward satisfaction and retention of senior volunteers. *Journal of Gerontological Social Work, 16*(3), 33-41.
- Toppe, C. M., Kirsch, A. D. & Michael, J. (2001). *Giving and volunteering in the United States, 2001*. Washington, D.C.: Independent Sector.
- Twiss, J., Dickinson, J., Duma, S., Kleinman, T., Paulsen, H. & Rilveria, L. (2003). Community gardens: Lessons learned from California healthy cities and communities. *American Journal of Public Health, 93*(9), 1435-1438.
- Vecina, M. L., Chacón, F. & Sueiro, M. J. (2010). Differences and similarities among volunteers who drop out during the first year and volunteers who continue after eight years. *The Spanish Journal of Psychology, 13*(1), 343-352.
- Wolford, M., Cox, K. & Culp III, K. (2001, April). Effective motivators for master volunteer program development. *Journal of Extension, 39*(2). Retrieved from:  
<http://www.joe.org/joe/2001april/rb4.php>

# **Appendix A**

## **Case-Study Interview Questions**

**Introduction:** You have been selected to be interviewed for this case-study because you made a volunteer commitment to the after-school garden club program for more than one semester. During this interview, I will be asking you questions about your general experiences with the after-school garden club program, your gardening experience, (your experiences working with children), your experiences working with your specific volunteer group and your thoughts on organizational support. Please be as open and honest with your responses as possible. This interview will be taped and transcribed; however, your responses will be kept anonymous throughout the research process. They will also remain anonymous if this research gets published. Do you have any questions for me before we get started?

**GENERAL:** This first section deals with questions about your overall after-school garden club program experience.

<p>1. Why did you decide to volunteer for the after-school garden club program? (Friend volunteering, volunteer hours needed, child attends school where garden is located, like to garden, like working with kids, etc.)</p>	
<p>2. What would you say were the contributing factors that affected your decision to continue volunteering for the after-school garden club program after one semester? Please elaborate</p>	
<p>3. What did you find rewarding about your volunteer experience?</p>	
<p>4. What would be some things you would change about your volunteer experience? (Setting, volunteer groups, activities, overall experience-communication, organizational support)</p>	
<p>5. What would be some things you wouldn't change about your volunteer experience?</p>	
<p>6. Overall, what did you learn from your volunteer experience?</p>	
<p>7. Refer to their response to question # 16 on written questionnaire and ask them to explain.</p>	

<p>How has being involved with the after-school garden club program influenced your life? <i>(Please circle all that apply)</i></p> <ul style="list-style-type: none"> <li>a. Personal growth</li> <li>b. Improved social skills</li> <li>c. Increased community connections</li> <li>d. Friendships created</li> <li>e. Increased self-confidence</li> <li>f. Source of creativity</li> <li>g. Enhanced learning opportunities</li> <li>h. Sense of belonging</li> </ul>	
<p>8. Would you volunteer in the future for an after-school garden club program if the opportunity existed? Why or why not?</p>	
<p>9. At what age did you take on your first volunteer responsibility? What memories do you have of that experience?</p>	

**GARDENING: This next section deals with questions about your gardening experience as a child.**

<p>1. Did you garden as a child? If yes, what did it involve and how old were you? What kind of memories do you have of that experience?</p>	
<p>2. How did your gardening experience as a child help you to identify with your role/responsibilities as a Garden Club or Garden Maintenance volunteer?</p>	

**WORKING WITH CHILDREN (Only for Garden Club Volunteers): These next questions touch on your experiences working with children.**

**Other than your work with children in the after-school garden club program, do you have any previous experience working with children? If yes, go to Q:1, if no, go to Q: 3**

**For the purposes of this study, we are defining leadership as a process of using one’s knowledge and skills to influence a group of individuals to accomplish a common goal.**  
<http://www.nwlink.com/~donclark/leader/leadcon.html>

<p>1. What kind of leadership roles in the past have you had working with children? (Babysitting, Sunday School, etc.) What specific age groups did you work with?</p>	
<p>2. What kind of leadership roles did you take on at Garden Club? (Led a station, disciplined children, organized volunteer responsibilities, e-mailed reminders to volunteer group)</p>	

**VOLUNTEER GROUP: This next section deals with your experiences working with your specific volunteer group.**

**We would like to know about the relationships within your volunteer group and how it influenced your decision to continue volunteering for the after-school garden club program.**

**For Example:**

<ul style="list-style-type: none"> <li>Was there something about the dynamics of your volunteer group, either semester that influenced you to come back each week to garden club or to continue performing garden maintenance? For example: How cohesive was your group? Was cohesiveness important to you?</li> </ul>	
<ul style="list-style-type: none"> <li>Did you become friends with any of the volunteers you worked with at your after-school garden club school site? (How did this help or impede your efforts at Garden Club?)</li> </ul>	



<p>How did this effect your decision to continue volunteering?)</p>	
<ul style="list-style-type: none"> <li>• How well did your volunteer group communicate with one another? Please elaborate. Weekly e-mails, meeting early before club, communicating during club, get togethers, etc. (How did this affect your decision to continue volunteering with the after-school garden club program?)</li> </ul>	

**Now let’s talk about frustrations. Even though you continued to volunteer, did you experience any frustrations within your volunteer group?**

<ul style="list-style-type: none"> <li>• What were some of the challenges you faced as a working volunteer group? What worked, what didn’t work?</li> </ul>	
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**TRAININGS, COMMUNICATION AND RECOGNITION**

**The after-school garden club program staff sent out e-mails and weekly newsletters, conducted volunteer trainings, held volunteer celebrations/feedback sessions and communicated weekly updates through your Garden Club Liaison.**

<p>How did the organizational support you received from the after-school garden club program staff contribute to your decision to continue volunteering? Can you be specific?</p>	
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**Was there anything else that you haven’t already mentioned, that contributed to your decision to continue volunteering for the after-school garden club program?**

## **Appendix B**

### **Case-Study Written Questionnaire**

# project PLANTS

## Case-Study Volunteer Questionnaire



Name \_\_\_\_\_  
(Last Name) (First Name)

This cover sheet will be torn off by the researchers so that your name will not be on the questionnaire.

**Instructions:**

Please read all of the instructions and questions carefully.

Do not put your name on any part of the survey on the following pages.

1. What is your age? \_\_\_\_\_
2. What is your gender? M or F
3. What is your marital status? (Please circle one)
  - a. Single
  - b. Married
  - c. Divorced or separated
  - d. Widowed
  - e. Not married, but living with a partner
4. Do you have children? Yes or No
5. Do you have grandchildren? Yes or No
6. What is your current employment status? (Circle all that apply)
  - a. Employed full-time for wages
  - b. Employed part-time for wages
  - c. Unemployed
  - d. Stay-at-home parent
  - e. Retired
7. What was your employment status during the time you were volunteering for the after-school garden club program? (Circle all that apply)
  - a. Employed full-time for wages
  - b. Employed part-time for wages
  - c. Unemployed
  - d. Stay-at-home parent
  - e. Retired
8. What is your current or most recent job? (Please describe)  

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9. What is the highest level of education you have achieved? (Circle one)
  - a. Less than high school
  - b. High school graduate or equivalent

- c. Some college or Associates degree
- d. Bachelor's degree
- e. Master's degree or above

9. Are you a student? Yes or No (Circle one)

*If yes, see below. If no, go to question 10.*

- a. What is your major? \_\_\_\_\_
- b. In what school year(s) did you volunteer for the after-school garden club program? (Circle all the apply)
  - a. Freshman
  - b. Sophomore
  - c. Junior
  - d. Senior
- c. What is your current GPA? \_\_\_\_\_

10. Were you a student when you volunteered for the after-school garden club program?

Yes or No (Circle one) *If yes, see below. If no, go to question 11.*

- a. What was your major? \_\_\_\_\_
- b. In what school year(s) did you volunteer for the after-school garden club program? (Circle all that apply)
  - 1. Freshman
  - 2. Sophomore
  - 3. Junior
  - 4. Senior
- c. What was your final GPA? \_\_\_\_\_

11. What is your current annual household income level? (Check one):

- \_\_\_\_ Under 25,000
- \_\_\_\_ 25,000 to 49,999
- \_\_\_\_ 50,000 to 99,999
- \_\_\_\_ 100,000 or above

12. In what capacity did you volunteer for the after-school garden club program? (Circle one)

- a. Garden club
- b. Garden maintenance
- c. Both

13. How many semesters did you volunteer for the after-school garden club program?

\_\_\_\_\_ Semesters

15. Do you have children that attend the school you volunteered at? Yes or No

- a. If yes, how many? \_\_\_\_\_
- b. Were any of your children in the after-school garden club? Yes or No

16. Do you live within **walking distance** of the after-school garden club school site you volunteered at? Y or N

17. How has being involved with the after-school garden club influenced your life?

*(Please circle all that apply)*

- a. Personal growth
- b. Improved social skills
- c. Increased community connections
- d. Friendships created
- e. Increased self-confidence
- f. Source of creativity
- g. Enhanced learning opportunities
- h. Sense of belonging

18. How many other volunteer opportunities were you involved with during your time with the after-school garden club program? Please list.

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19. Approximately how many volunteer opportunities have you been involved with over the past 5 years other than the ones listed above? Please list.

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20. Over the past 5 years, how would you describe your average level of volunteerism?

- a. Occasional (a few times/year)
- b. More than occasional (once/month)
- c. Fairly frequent (a few times/month)
- d. Frequent (once/week)
- e. Very Frequent (more than once/week)

21. Did you consider yourself a gardener before volunteering with the after-school garden club program?

Yes or No (Circle one)

21. Would you consider yourself a gardener now? Yes or No (Circle one)

*\*If yes, see below. If no, you are finished!*

22. What kind of garden do you have? (Circle all that apply)

- a. Flower
- b. Fruit
- c. Vegetable
- d. Herb
- e. Water garden
- f. Houseplants
- g. Container garden
- h. Home garden
- i. Community garden plot
  
- j. Other \_\_\_\_\_

23. Approximately how large is the space you garden in? \_\_\_\_\_

24. About how many hours a week do you spend gardening? \_\_\_\_\_ hours

25. Over the growing season-from April-Oct. here in Kansas-how many months are you actively gardening?

\_\_\_\_\_ months

*Thank you for your participation!*



## **Appendix C**

### **Coding Tree of Case-Study Volunteer Interview Responses**

## Coding Tree

- (1) 4-H
  - (1 1) Activities
    - (1 1 1) Gardening
    - (1 1 2) Recreation
  - (1 2) Membership
  - (1 3) Proposed involvement with school garden
  - (1 4) Volunteer history in 4-H
    - (1 4 1) As 4-H leader
  - (1 5) Work experience in 4-H
- (2) Children
  - (2 1) ADD
  - (2 2) Behavior
  - (2 3) Eating habits
  - (2 4) Enthusiasm of children
  - (2 5) Gardening
  - (2 6) Learning process
  - (2 7) Physical activity
  - (2 8) Relationship with volunteers
  - (2 9) Respectful
  - (2 10) Screen time
- (3) Defining role of volunteer
- (4) Fellow Volunteers
  - (4 1) Acquaintances
  - (4 2) As leaders
    - (4 2 1) Discipline
    - (4 2 2) Organizational leaders
  - (4 3) Communication
    - (4 3 1) Negative
    - (4 3 2) Positive
  - (4 4) Consistency, commitment level
    - (4 4 1) Negative
    - (4 4 2) Positive
  - (4 5) Crush
  - (4 6) Enthusiasm
  - (4 7) Expectations
  - (4 8) Facilitating club
    - (4 8 1) Challenges
    - (4 8 2) Child management
    - (4 8 3) Consistency

- (4 8 4) Differences between two school garden sites
- (4 8 5) Preparing for club
- (4 8 6) Teamwork, using everyone's talents/knowledge
- (4 9) Friendships
- (4 10) Frustrations
  - (4 10 1) Garden club volunteer frustrations
    - (4 10 1 1) Number of volunteers
    - (4 10 1 2) Communication with fellow volunteers
    - (4 10 1 3) Communication with garden maintenance volunteers
    - (4 10 1 4) Discipline
    - (4 10 1 5) Expectations
  - (4 10 2) Garden maintenance volunteer frustrations
    - (4 10 2 1) Number of volunteers
    - (4 10 2 2) Communication with garden club volunteers
    - (4 10 2 3) Communication with fellow volunteers
    - (4 10 2 4) No frustrations
- (4 11) Interaction
  - (4 11 1) Negative
  - (4 11 2) Positive
- (4 12) Learning from fellow volunteers
- (4 13) Motives for volunteering
- (4 14) Recruitment
- (4 15) Similar interests
- (4 16) Turnover
- (4 17) Working with university students
- (4 18) Working with children
  - (4 18 1) University students' ability to work with children
- (4 19) Working with older volunteers
- (5) Gardening
  - (5 1) Benefits for children and schools
  - (5 2) Experience as an adult
  - (5 3) Experience as a child
    - (5 3 1) Prepared volunteer for role as garden club program volunteer
  - (5 4) Identify with role as a program volunteer
  - (5 5) Interest
- (6) Implementing Garden Club/Challenges
  - (6 1) Behavior issues
- (7) Interest in School Garden After After-School Garden Club Program Has Ended
- (8) Lack of Community Involvement
  - (8 1) Lack of involvement from Master Gardeners

- (9) Leadership or Teaching History
  - (9 1) Age of those being lead/taught
    - (9 1 1) Adult level
    - (9 1 2) College level
    - (9 1 3) Elementary level
      - (9 1 3 1) 4<sup>th</sup>-6<sup>th</sup> grade
    - (9 1 4) High school level
    - (9 1 5) Middle school level
    - (9 1 6) Preschool level
  - (9 2) Age of those leading/teaching
    - (9 2 1) Adult
    - (9 2 2) College
    - (9 2 3) High school
  - (9 3) Babysitting
  - (9 4) Daycare
  - (9 5) Defining leadership
  - (9 6) Extracurricular activities
  - (9 7) Gardening
  - (9 8) Own family
  - (9 9) Sunday school
  - (9 10) Teaching
    - (9 10 1) Classroom volunteer
- (10) Leadership Role with Garden Club/Garden Maintenance
  - (10 1) Maintenance
  - (10 2) Support perspective
- (11) Motivation
  - (11 1) Belief in mission
    - (11 1 1) Gardening
    - (11 1 2) In general
    - (11 1 3) Nutrition
    - (11 1 4) Physical activity
  - (11 2) Continuing in program
    - (11 2 1) Being part of a program that encourages gardening
    - (11 2 2) Belief in mission
    - (11 2 3) Benefits of gardening for children
    - (11 2 4) Came naturally
    - (11 2 5) Concerned about success of the program/volunteer participation
      - (11 2 5 1) Guilt
    - (11 2 6) Convenience
      - (11 2 6 1) Close to home

- (11 2 6 2) Easier the second year
- (11 2 7) Despite disappointments
- (11 2 8) Feedback sessions
- (11 2 9) Free produce
- (11 2 10) Fun experience/good program
- (11 2 11) Gardening
- (11 2 12) Good children
- (11 2 13) Good leadership
- (11 2 14) Good volunteer cohort
- (11 2 15) Interested in outcome
- (11 2 16) Just wanted to volunteer/give back
- (11 2 17) Learning opportunities
  - (11 2 17 1) Gardening
  - (11 2 17 2) In general
  - (11 2 17 3) Working with children
- (11 2 18) Needed volunteer hours
- (11 2 19) Organizational support
  - (11 2 19 1) Communication
  - (11 2 19 2) Curriculum
  - (11 2 19 3) Sense of belonging
  - (11 2 19 4) Volunteer newsletter
- (11 2 20) Own children
- (11 2 21) People were depending on them
- (11 2 22) Rewarding experience
- (11 2 23) Schedule worked out
  - (11 2 23 1) Minimum commitment
- (11 2 24) Teaching children
- (11 2 25) Volunteer training
- (11 2 26) Volunteer communication
- (11 3) Future program participation
- (11 4) Joining
  - (11 4 1) Acquaintances/friends were volunteering
  - (11 4 2) Belief in mission of program
  - (11 4 3) Beneficial to community/children
  - (11 4 4) Connecting children with the environment
  - (11 4 5) Convenience
    - (11 4 5 1) Already spend time at school site
    - (11 4 5 2) Close to house
  - (11 4 6) Good way to spend time
  - (11 4 7) Interest in gardening

- (11 4 7 1) Teaching children about gardening
- (11 4 8) Learning opportunity
- (11 4 9) Needed volunteer hours
- (11 4 10) New/different experience
- (11 4 11) Outside activity
- (11 4 12) Own children/grandchildren
- (11 4 13) Sharing knowledge
- (11 4 14) Sounded fun
- (11 4 15) Time to give
- (11 4 16) Volunteer participation needed
- (11 4 17) Wanted to give back/community
- (11 4 18) Wanted to work with children
- (11 4 19) Worked with own schedule
- (11 5) Reasons not to continue
- (12) Nature
- (13) Nutrition
- (14) Objectives of Garden Club
- (15) Preparedness for Garden Club
- (16) Problems Facing School Garden
  - (16 1) Broken high tunnel
  - (16 2) Development of garden
  - (16 3) Future of garden after grant has ended
  - (16 4) Mother nature
  - (16 5) Productivity
  - (16 6) Vandalism/theft
- (17) Proposed Changes
  - (17 1) Access
  - (17 2) Child management
  - (17 3) Consistent group leader needed
  - (17 4) Garden club activities/curriculum
  - (17 5) Increased involvement
    - (17 5 1) Classrooms
    - (17 5 2) Children
    - (17 5 3) Parents
    - (17 5 4) Self
    - (17 5 5) Volunteers
  - (17 6) Fewer garden maintenance volunteers
  - (17 7) Volunteer commitments
  - (17 8) More communication and awareness
    - (17 8 1) From community/school

- (17 8 2) From program staff/leaders
- (17 8 3) From volunteers
- (17 9) More feedback sessions/different times for sessions
- (17 10) More volunteers
  - (17 10 1) Number of volunteers
  - (17 10 2) With knowledge
- (17 11) No changes
  - (17 11 1) What worked
    - (17 11 1 1) Commitment level
    - (17 11 1 2) Curriculum
      - (17 11 1 2 1) Gardening
        - (17 11 1 2 1 1) Individual garden plots
      - (17 11 1 2 2) Physical activity
      - (17 11 1 2 3) Snack
      - (17 11 1 2 4) Vegetables grown
    - (17 11 1 3) Everything
    - (17 11 1 4) Feedback sessions
    - (17 11 1 5) Flexibility of volunteer experience
      - (17 11 1 6) Minimal commitment
    - (17 11 1 6) Free produce
    - (17 11 1 7) Having a set schedule
    - (17 11 1 8) Incentives
    - (17 11 1 9) Children
    - (17 11 1 10) Maintenance duties
    - (17 11 1 11) Newsletters
    - (17 11 1 12) Program management
      - (17 11 1 12 1) Communication with managers
      - (17 11 1 12 2) Program staff as garden club leaders
    - (17 11 1 13) School site
    - (17 11 1 14) Structure of program
    - (17 11 1 15) Trainings
      - (17 11 1 15 1) General comments
    - (17 11 1 16) Updates from garden club liaison
    - (17 11 1 17) Volunteers
      - (17 11 1 17 1) As leaders
      - (17 11 1 17 2) With a background in horticulture and/or physical activity
- (17 12) Number of children involved
- (17 13) Organization of garden club
- (17 14) Physical facilities

- (17 14 1) Better soil
- (17 14 2) Security of garden
- (17 14 3) Set-up of garden
- (17 14 4) Water accessibility
- (17 15) Project management, oversight and/or support
- (17 16) Summer gardening
- (17 17) Time spent gardening
- (17 18) Timeframe of school garden
- (17 19) Training
  - (17 19 1) Plant knowledge
  - (17 19 2) Suggestions for improvement
  - (17 19 3) Working with children
- (18) Rewards and Benefits
  - (18 1) Friendships created with volunteers and children
  - (18 2) Children
    - (18 2 1) Learning opportunities/new experience
      - (18 2 1 1) Food
      - (18 2 1 2) Gardening
    - (18 2 2) Physical activity
    - (18 2 3) Relaxation
    - (18 2 4) Take-home veggies
  - (18 3) Self
    - (18 3 1) Being part of the project
    - (18 3 2) Giving back
    - (18 3 3) In general
    - (18 3 4) Increased community connections
    - (18 3 5) Increased gardening knowledge
    - (18 3 6) Own children could participate
    - (18 3 7) Pride in school
    - (18 3 8) Veggies
    - (18 3 9) Wasn't looking for rewards
    - (18 3 10) Working with fellow volunteers
      - (18 3 10 1) Accomplishing a common goal
    - (18 3 11) Working with children
      - (18 3 11 1) Excitement of children
      - (18 3 11 2) Impacting their lives
      - (18 3 11 3) Seeing children develop
- (19) School Need
- (20) Scouts
  - (20 1) Volunteering/working for Boy/Girl Scouts



- (20 2) Was a Boy Scout
- (21) Technology
  - (21 1) Facebook
  - (21 2) Video games
- (22) Volunteer History
  - (22 1) Activities
    - (22 1 1) 4-H
    - (22 1 2) AmeriCorps
    - (22 1 3) Animals
    - (22 1 4) Church
    - (22 1 5) Gardening
    - (22 1 6) Nature
    - (22 1 7) Neighborhood
    - (22 1 8) School volunteer
    - (22 1 9) Scouts
    - (22 1 10) Service clubs
    - (22 1 11) Student council
    - (22 1 12) Working with children
    - (22 1 13) Working with the elderly
  - (22 2) Age of first volunteer experience
    - (22 2 1) Adult
    - (22 2 2) Elementary
    - (22 2 3) Teenager
  - (22 3) Experience with volunteer retention
  - (22 4) Importance of parents volunteering
  - (22 5) Influences on future volunteerism
  - (22 6) Influencing others to volunteer
  - (22 7) Outside influences
  - (22 8) Volunteering as an adult
- (23) Volunteers' perception of their involvement
- (24) What Volunteers' Learned/Gained
  - (24 1) Amount learned
  - (24 2) Childhood experience different than garden club children's'
    - (24 2 1) Experience of garden club children w/ military parents
  - (24 3) Enhanced learning opportunities
    - (24 3 1) Curriculum lessons
    - (24 3 2) For own children involved in the program
    - (24 3 3) Gardening
    - (24 3 4) Working with children
  - (24 4) Friendships

- (24 4 1) With garden club children
- (24 4 2) With program managers
- (24 4 3) With parents at school site
- (24 4 4) With teachers at school site
- (24 4 5) With volunteers
  - (24 4 5 1) Facebook
- (24 5) Eating and physical activity habits of children
- (24 6) Gardening
  - (24 6 1) New gardening knowledge
    - (24 6 2) From other volunteers
    - (24 6 3) Putting new knowledge to use
  - (24 6 2) New to gardening
  - (24 6 3) With children
    - (24 6 3 1) Using curriculum
- (24 7) How to work with children
  - (24 7 1) Benefits of gardening
  - (24 7 2) Child management
  - (24 7 3) Enjoyed working with children
  - (24 7 4) How to interact with children
    - (24 7 4 1) Putting things in simpler terms
  - (24 7 5) Keeping things organized
  - (24 7 6) Learning about self
    - (24 7 6 1) Resilience
    - (24 7 6 2) To go with the flow/not get frustrated
  - (24 7 7) Sharing own knowledge with children
  - (24 7 8) Teaching children
    - (24 7 8 1) Impacting children's lives
    - (24 7 8 2) Children learn in their own way
  - (24 7 9) Working specifically with 4<sup>th</sup> and 5<sup>th</sup> graders
  - (24 7 8) Working with younger children
- (24 8) Improved social skills
  - (24 8 1) Increased personal communication in other areas of involvement
  - (24 8 2) Working with children
  - (24 8 3) Working with volunteers
- (24 9) Increased community connections
  - (24 9 1) Building relations with fellow volunteers and program managers
    - (24 9 1 1) University student volunteers
  - (24 9 2) Community donations
  - (24 9 3) Community surrounding school
  - (24 9 4) Getting to know the children at the garden club school site

- (24 9 5) Influences on future volunteerism with the community
- (24 9 6) School community/parents
- (24 9 7) Through Facebook
- (24 10) Leadership development
  - (24 10 1) Being a good teacher
  - (24 10 2) Co-leading
  - (24 10 3) Gaining confidence teaching
  - (24 10 4) Leading by example
  - (24 10 5) Leading independently
    - (24 10 5 1) Being the disciplinarian
    - (24 10 5 2) Coordinating schedules/activities
    - (24 10 5 3) Encouraging teamwork
    - (24 10 5 4) Incorporating own knowledge
    - (24 10 5 5) Teaching new material
  - (24 10 6) New leadership role
  - (24 10 7) One person can make a difference
  - (24 10 8) Supporting the kids' efforts
- (24 11) Personal growth
  - (24 11 1) Constantly growing
  - (24 11 2) Increased self-confidence
    - (24 11 2 1) As a leader
    - (24 11 2 2) Due to experience
  - (24 11 3) Leadership development
  - (24 11 4) Level of volunteer commitment
  - (24 11 5) Making a difference
  - (24 11 6) Through gardening and/or environmental interests
  - (24 11 7) Working with children
  - (24 11 8) Working with others
- (24 12) Sense of belonging
  - (24 12 1) Being part of something larger than self
  - (24 12 2) Being relied upon
  - (24 12 3) Community membership
  - (24 12 4) Spending time with like-minded individuals
- (24 13) Source of creativity
  - (24 13 1) Gardening encourages creativity
  - (24 13 2) Infectious creativity
  - (24 13 3) Garden club children encouraged creativity
  - (24 13 4) Garden club lessons encouraged creativity
  - (24 13 5) Started a garden of their own
- (24 14) What it takes to coordinate a program of this magnitude

## **Appendix D**

### **Case-Study Volunteer Informed Consent**

**Project PLANTS Volunteer Community Hub**  
**Promoting Lifelong Activity and Nutrition through Schools**  
**INFORMED CONSENT**

**Project Information:** Project PLANTS is a multi-school study designed to promote gardening, healthy eating, and physical activity in children. The **Volunteer Community Hub** project is a study that aims to improve the sustainability of school gardens through a community volunteer development project as part of project PLANTS. This project is directed by the Departments of Horticulture, Forestry, and Recreation Resources and Kinesiology at Kansas State University, and is funded by a grant from the United States Department of Agriculture.

**What is involved?** You will be asked to complete a short written questionnaire followed by an interview. The questionnaire should take about 3-5 minutes to complete and will ask you questions about your volunteer experiences in addition to demographic questions. The interview should not take more than an hour and a half. You will be asked questions about your experiences volunteering with project PLANTS, your experiences working with children and your gardening experience.

**Information is confidential.** All information will be completely confidential. Your name will be replaced with ID numbers. At no time will your name be associated with your answers or with the results of this study. No individual cases will be singled out for examination; only group data will be presented so your name will not ever be identified.

**Potential benefits and concerns.** As stated above, your information will be kept completely confidential. The information gathered from this study will be used to make recommendations to future after-school garden club programs in regards to volunteer retention.

**Participation is voluntary.** Your participation in this study is completely voluntary. There will be no penalty if you do not wish to participate in the interview. You are free to not answer any of the questions.

**Questions/comments?** The Institutional Review Board at Kansas State University (Dr. Rick Scheidt, Chair, 785-532-3224, 1 Fairchild Hall, Kansas State University) approved this project. For information regarding the rights of human subjects please contact Dr. Rick Scheidt. If you have any other questions about the project, please feel free to call Dr. Candice Shoemaker at 785-532-1431 or [cshoemak@ksu.edu](mailto:cshoemak@ksu.edu).

Thank you for taking the time to read this consent. If you are willing to participate, please read and sign below and return it. The second copy of this informed consent is for you to keep for your records. Thank you for your assistance and careful responses.

*I have read the informed consent and agree to participate in this study. My participation is voluntary. I understand that I may withdraw from the study at any time without penalty. I understand that my responses are strictly confidential and will not be associated with my name.*

Name (please print): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

