

Competencies, Benefits and Limitations for Master Gardener Coordinators:
A Delphi Technique Involving County Extension Agents in Texas.

by

Landry Lockett, M.S.

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Approved

James H. Smith / Chris Boleman

Scott Cummings

David Lawver

Cynthia McKenney

John Borrelli
Dean of the Graduate School

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ABSTRACT

This study sought to develop a list of best management competencies, benefits and limitations for Texas Cooperative Extension Agents who are Master Gardener Coordinators using a Delphi technique. The study utilized fifteen expert County Extension Agent Master Gardener Coordinators throughout the State of Texas as the expert Delphi panel. Three research questions were asked of the expert panel members. Those questions included: 1. What competencies do you need to be an efficient and effective Master Gardener Coordinator?, 2. What are the perceived benefits of being a Master Gardener Coordinator? and 3. What are the limiting factors (problems) of being a Master Gardener Coordinator?

One hundred-twenty consolidated statements were generated by the panel in response to these questions. These statements were subsequently rated by the panel for their strength of agreement with each statement on a six-point Likert-type scale (6 = “*Strongly Agree*,” 5 = “*Agree*,” 4 = “*Somewhat Agree*,” 3 = “*Somewhat Disagree*,” 2 = “*Disagree*,” and 1 = “*Strongly Disagree*”).

Consensus was reached on 64 competencies needed by Master Gardener Coordinators, answering research question one. There were a total of 19 benefit statements regarding coordinating a Master Gardener program, in response to research question two. Two statements of limiting factors or problems associated with coordinating a Master Gardener Group achieved consensus associated with research question three. Categories of competencies needed included organizational leadership,

systems leadership, organizational culture, personal skills and management skills. The panel placed an emphasis on “people” skills, positive attitude and management skills to be an effective Master Gardener Coordinator. Benefits of coordinating Master Gardeners included such items as expanding the reach of the County Extension Agent and increasing Extension’s impact. Problems associated with coordinating Master Gardeners included increasing the County Extension Agent’s workload as well time commitments.

The results of this study will provide Texas Master Gardener Coordinators a list of essential competencies for effectively managing a Master Gardener program. This list will help Extension Master Gardener Coordinators most effectively utilize their time, energy and resources for maximum impact and program success.

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CHAPTER I

INTRODUCTION

Background

Volunteerism is identified as a part of the Texas Cooperative Extension Agency Strategic Plan for 2006-2010. Boleman and Burkham (2005) noted that volunteers are one of Texas Cooperative Extension's most valuable assets, and that they help Extension reach more clientele, ensure the relevancy of programs, deliver Extension education and interpret the value of Extension to stakeholders.

Master Volunteer programs were first utilized in United States Extension education efforts in the 1960's (Wolford, Cox, & Ken Culp, 2001). These volunteers are local people with an interest in a particular subject. After participating in educational classes to increase their knowledge, they use that knowledge to work as volunteers within their community. Today, the Cooperative Extension program in the United States utilizes volunteers as an essential part of the delivery of its educational programs (Boyd, 2004).

Deficiencies of Extension professionals in coordinating volunteers and volunteer programs have been identified through various studies (Collins, 2001; Deppe & Ken Culp, 2001; Hange, Seevers, & VanLeewen, 2002). It has been shown that County Extension Agents may perceive specific volunteer management functions as important, yet their personal rating of their competence in those functions often does not match the importance placed upon those functions.

Various studies have examined County Extension Agent's volunteer management function needs as described by various models such as ISOTURE (Boyce, 1971),

L-O-O-P (Penrod, 1991), or GEMS (Culp, Deppe, Castillo, & Wells, 1998). In 2004, Boyd further examined this concept by conducting a study to determine specific “competencies that would be required by administrators of volunteers in the coming decade” (p.54). This study utilized a Delphi technique with experts consisting of administrators of volunteers, directors of regional volunteer centers, Extension volunteer development specialists, and university faculty members from across the nation to develop group consensus. Ultimately, 33 competency statements divided into five constructs were retained by the expert panel. The five constructs included organizational leadership, systems leadership, organizational culture, personal skills and management skills. Examples of the 33 competency statements include: “creative use of technology to effect program impact,” “willingness to share power and give up control,” and “competent in screening volunteers.”

While Boyd’s study (2004) gave a more detailed description of what competencies are needed by Extension volunteer administrators, no study has been completed that details specific competencies for Extension Master Gardener volunteer coordinators to successfully implement the Master Gardener program. Furthermore, competencies identified by Boyd (2004) have neither been validated nor refuted as to how they relate specifically to Master Gardener coordinators. The Texas Master Gardener Management Guide provides a framework from which to manage Master Gardeners and outlines many rules and guidelines; however, this management guide does not include lessons learned from veteran Master Gardener Coordinators in relation to best management practices.

Purpose of the Study

The purpose of this study was to develop a list of best management competencies, benefits and limitations for Texas Cooperative Extension Agents who are Master Gardener Coordinators. This was accomplished using input from veteran Master Gardener Coordinators throughout the State of Texas.

Dr. Doug Welsh, the Texas State Master Gardener Coordinator, was solicited to define the qualities of a Texas Master Gardener Coordinator expert. Dr. Welsh nominated Texas Master Gardener coordinator experts to be utilized in this research project. Once Dr. Welsh gave his recommendation of qualified Master Gardener Coordinators to participate in this study, the twelve Texas Cooperative Extension District Extension Administrators (DEA's) were queried for their recommendations of County Extension Agents within their Extension region that met Dr. Welsh's definition of an expert Master Gardener Coordinator. The panel member recommendations given by the DEA's validated the list given by Dr. Doug Welsh. The coordinators selected represent both rural and urban counties, counties of various population sizes and Master Gardener volunteer groups of all sizes.

Objective

The primary objective of this study was to utilize a Delphi technique to derive a consensus of specific examples of best management competencies for Texas Master Gardener coordinators.

Significance of the Problem

Many Texas Cooperative Extension County Extension Agents are placed in the role of volunteer coordinator for a county Master Gardener program. Most of these County Extension Agents have little to no formal training in managing volunteers. These same County Extension Agents are also responsible for conducting many other roles and functions as part of their job description. Previous studies have shown that even when County Extension Agents identify competencies needed to be an effective volunteer coordinator, they often do not feel that they possess those competencies.

Previous studies have researched various aspects of volunteerism, such as motives, benefits, reasons for remaining a volunteer and competencies needed by volunteer administrators. Much time and research efforts have gone into developing volunteer management models such as L-O-O-P, ISOTURE and GEMS. However, there is no written list of best management competencies for Master Gardener Coordinators related to the general categories of volunteer management models or lists of competencies needed by administrators.

The results of this study will provide Texas Master Gardener Coordinators a list of competencies needed and successful practices for managing a Master Gardener

program. This list will help Extension Master Gardener Coordinators to most effectively utilize their time, energy and resources for maximum impact and program success.

Theoretical Framework

The theoretical framework for this research study is McClelland's theory of motivation. McClelland and others developed a motivational theory based on the belief that humans are motivated by certain needs (Atkinson & Feather, 1966; McClelland, 1961, 1985). These researchers identified three motives affecting human behavior: the need for achievement, the need for affiliation and the need for power. Achievement motives influence a person to take pride in accomplishment and a desire for excellence. Affiliation motives influence people to be most concerned about his or her relationships with others. Power motives are related to personal desires for influence and control.

Definition of Terms

The following definitions are intended to acquaint the reader with the operational context with which key concepts were used in this research.

Competency: a knowledge, skill, motive, or characteristic that causes or predicts outstanding performance (Boyd, 2004).

County Extension Agent: an individual who works for a university Extension program at the county level in the United States of America.

Delphi Method: technique based on a structured process for collecting and distilling knowledge from a group of experts by means of a series of questionnaires interspersed with controlled opinion feedback (Alder & Ziglio, 1996).

GEMS Model: model for volunteer program management. Four broad categories are included in the GEMS model, which include: Generate, Educate, Mobilize and Sustain (Culp et al., 1998). These four categories comprise a total of 18 phases.

The Generate category consists of an organizational needs assessment, writing job (position) descriptions, identifying, recruiting, screening and selecting. The Educate phase includes orienting, protecting, providing resources and teaching. Mobilize includes engaging, motivating and supervising. The Sustain category contains evaluating, recognizing and redirecting, retaining or disengaging. (Culp et al., 1998, p. 37)

ISOTURE: model for volunteer program management. “ISOTURE” is an acronym that stands for Identification (of opportunities, job descriptions), Selection (of best qualified individuals, best fit), Orientation (of organization and job), Training (knowledge, attitude and skills to do the job), Utilization (effectively using volunteers’ knowledge, skills and attitude), Recognition (of volunteer contributions) and Evaluation (of individual performance and overall program) (Boyce, 1971).

L-O-O-P: model for volunteer program management. “L-O-O-P” is an acronym that stands for Locating (volunteers), Orienting (volunteers), Operating (with volunteers), and Perpetuating (the involvement of volunteers) (Penrod, 1991).

Tailored Design:

the development of survey procedures that create respondent trust and perceptions of increased rewards and reduced costs for being a respondent, which take into account features of the survey situation and have their goal the overall reduction of survey error. (Dillman, 2000, p. 27)

Texas Master Gardeners: trained volunteers coordinated by Texas Cooperative Extension to provide horticultural advice and education on a local level.

Veteran Master Gardener: a certified Master Gardener that has volunteered for multiple years, has a working knowledge of horticulture, and understands the roles and responsibilities of Master Gardener volunteers.

Volunteer coordinator: those persons who direct or lead volunteers in organizations.

Delimitations of the Study

The following were the delimitations of this investigation:

1. Members of the Delphi panel were Master Gardener Coordinators who were also County Extension Agents for Texas Cooperative Extension.
2. For the purpose of this study, the definition of an “expert” Master Gardener coordinator was defined by the Texas Cooperative Extension Statewide Master Gardener Coordinator, Dr. Doug Welsh, and validated by Texas Cooperative Extension’s District Extension Administrators and Regional Program Directors.

Limitations of the Study

The following were the limitations for this investigation:

1. The method of data collection utilized in this study was email surveys. Accuracy of the responses was subjected to willingness of the individual to participate in the study, haste in completing the questionnaires, and willingness to divulge complete answers.
2. Only data received by the deadline for each round of questionnaires was analyzed.

Basic Assumptions

The researcher collected an extensive list of best management practices that are relevant to Texas Master Gardener coordinators. Another assumption was that the panel of experts selected to participate in this study are representative of experts within Texas Cooperative Extension on best management practices for Master Gardener coordinators. These experts represent counties with various population levels, from small to large, as well as from rural to urban.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The purpose of this chapter is to review the literature relevant to the topic of utilization of volunteers by Texas Cooperative Extension. The review includes a discussion of volunteerism, volunteer management and Texas Cooperative Extension's use of volunteers. When these components are combined, a broad range of volunteerism topics and trends are revealed.

Volunteerism

Volunteerism in America

Americans are being urged to volunteer from the highest levels of national government to local community programs (Sitrin, 2000). Many high schools and colleges now have mandatory community service requirements in their curricula, and businesses are encouraging, sometimes requiring, their employees to become community service volunteers. There are countless publications and websites that focus on volunteerism. There are also national organizations and international conferences devoted to volunteer issues.

Americans have responded to this emphasis on volunteerism. In the United States, 44 percent of adults (83.9 million people) volunteered with a formal organization in 2000 (*Giving and Volunteering in the United States*, 2001). These volunteers gave

approximately 15.5 billion hours, representing the equivalent of over 9 million full-time employees at a value of \$239 billion (based upon the estimated hourly value of volunteer time of \$15.40 per hour).

Volunteers in Extension

Texas Cooperative Extension has the largest volunteer program of any Texas agency (Boleman & Burkham, 2005). Boleman and Burkham point out that it is essential to the mission of Texas Extension that these volunteers are organized and supervised well, noting that volunteers help Texas Extension: “reach more people; ensure that programs are relevant; deliver Extension education; and interpret the value of Extension to others” (p. 1). Because of this emphasis on volunteers, Texas Cooperative Extension has included skills in the management of volunteers in their list of competencies that faculty must possess or acquire in order to be successful as county Extension educators (Stone & Coppernoll, 2002).

Texas Cooperative Extension’s list of 35 competencies is divided into six general categories including: Subject Matter Expertise, Organizational Effectiveness, Develop and Involve Others, Communications, Action Orientation and Personal Effectiveness. Subject matter expertise refers to “a thorough knowledge and skills in the performance of a given task or subject matter area, including skills in providing education and instruction, solving problems, and integrating technology” (p. 1). Organizational effectiveness “accomplishes the mission of Extension through program development and evaluation efforts, as well as the ability to build relationships and act with

accountability” (p. 2). With competencies in the Develop and Involve Others category, a County Extension Agent “maintains healthy relationships with other people in order to meet the needs of Extension’s clientele. Responsibilities include mentoring, delegating, teamwork, facilitating groups, and providing direction for volunteers” (p. 3). The Communications category refers to “the ability to communicate effectively in interpersonal and group situations, whether through written or oral means” (p. 4). Action orientation competencies are fulfilled when a County Extension Agent “shows strong initiative, acts as a champion for change, creates a vision and working diligently toward that goal” (p. 5). Personal effectiveness is “a commitment to the profession as well as the flexibility to balance all aspects of personal and professional life in order to work effectively” (p. 6).

Volunteers provide a greater diversity of Extension contacts to targeted groups that may not be reached by other methods (Laughlin, 1990). County Extension Agents enjoy greater program visibility and positive image-building activities through volunteers. Volunteers often have resources and traits such as time, talents, ethnic backgrounds and previous experiences that allow them more access to and identification with audiences than a single County Extension Agent would have. Laughlin (1990) notes that volunteers can often provide a “special quality of contact no Extension professional has time for.” She proceeds to state that for Extension clientele, volunteers can be “credible, comfortable, and unthreatening mentors” (p.57).

Master Volunteer Groups in Texas Extension

Volunteer groups and associations support the mission of Texas Cooperative Extension through their education and service (Burkham & Boleman, 2005). They are facilitated through Texas Cooperative Extension and partner with Extension to achieve common goals. Much of the needed help that volunteers give Texas Extension stems from their own interests and experiences. Volunteer talents are enhanced as they receive training from experts in various disciplines. This develops a system where volunteers are improving their own skills while helping others.

Master volunteer associations comprise an important segment of Texas Extension volunteer programming (Burkham & Boleman, 2005). Extension master volunteers are unique volunteers in that individuals receive a specified number of training hours with a commitment to returning a designated number of hours in volunteer service. The minimum standards for Texas Extension master volunteers are 20 hours of training and 50 hours of service.

Master Volunteer programs provide Extension with several advantages by multiplying expertise in a subject area; building a support base; allowing agents to have time for advanced programming; enabling Extension professionals to focus on issue based programming; increasing self-esteem of volunteers; and providing for volunteer support to Extension programming (Laughlin & Schmidt, 1995). For example, Master Gardeners in a county provide much needed support with handling inquiries from local clientele. With Texas' urban population expanding exponentially and with so many

individuals interested in gardening today, Extension offices are inundated with local homeowner questions. County Extension Agents are too few in number to handle the vast amount of information requests that Extension offices receive through telephone, email and walk-in clientele. Master Gardeners augment the County Extension Agents' efforts to help fulfill the mission of Extension of providing quality, relevant outreach and continuing education programs and services to local citizens.

“Master Gardener” is one type of Extension master volunteer association. Master Gardeners are local community members with an enthusiasm about gardening. These volunteers support Extension programming efforts by participating in different projects throughout the year. Projects include, but are not limited to, answering gardening phone calls at the county Extension office, working with 4-H youth, planting community gardens and conducting workshops (Welsh, 2004). The first Texas Master Gardener training course was held in Montgomery County in 1979 and drew about 25 people ("History of the Texas Master Gardener Program," 2006). Texas Cooperative Extension made an official commitment to the Master Gardener program by hiring a statewide coordinator in 1987. Fifty-four Texas Master Gardener programs now exist throughout the state, ranging in size from one Master Gardener (Madison and Leon) to 478 Master Gardeners (Bexar). The Texas Master Gardener Program has experienced phenomenal growth in recent years. From 1990 to 2000, the number of Texas Master Gardener volunteers increased by 630%, from 730 to 5,329 ("Texas County Master Gardener Programs. Annual Reports.," 2001).

Motivation of Volunteers

McClelland and others developed a motivational theory based on the belief that humans are motivated by certain needs (Atkinson & Feather, 1966; McClelland, 1961, 1985). These researchers identified three motives affecting human behavior: the need for achievement, the need for affiliation and the need for power. Achievement motives influence a person to take pride in accomplishment and a desire for excellence. Affiliation motives influence people to be most concerned about his or her relationships with others. Power motives are related to personal desires for influence and control.

The actual volunteer experience is comprised of individual volunteer motivations and organizational needs (Balenger, Sedlack, & Guenzler, 1989). This experience has the potential to satisfy the needs of both the organization and the individual volunteer. Volunteers serve an organization with the expectation that certain motivational needs will be met during the volunteering process.

Steele (1987) interviewed 1,500 Extension volunteers from 300 counties across the United States as part of a National Extension Accountability Report. Participants represented affluent and poor as well as rural and urban populations. The purpose was to determine the benefits of Extension program volunteers. Results were categorized into four areas: 1. knowledge gained, 2. economic benefits, 3. social and psychological benefits, and 4. community benefits. Respondents reported improving people skills (89%) and a gain in leadership (86%). The social and psychological benefits category received the highest positive responses with satisfaction of helping (90%) and increased

self esteem (89%). Eighty-five percent of respondents gave a favorable response when asked if volunteer work had met expectations.

Simonson and Pals (1990) conducted research to discover motivational factors that attract Master Gardeners to the program. Their study sample consisted of 161 active and inactive Idaho Master Gardeners. When asked the question, “Why are you a Master Gardener?” fifty-one percent of respondents said that they wanted to increase their knowledge for their own use. The next greatest reason given for joining the Master Gardener program was self-improvement (13.9%).

Data collected from 147 individuals associated with the Master Gardener program in Illinois gave similar insight into Master Gardener motivation. Survey responses revealed that the major motivational factor for potential/current Master Gardeners to participate in the program was to improve personal gardening skills (Schott, 2000). Helping others was the second most motivational factor for participation. Illinois Master Gardeners stated that they remained in the program because of the fellowship with other gardeners and the knowledge gained. This study found no conclusive evidence as to why volunteers exited the program.

As part of a survey on Master Gardener motivations, 417 current and former Missouri Master Gardeners were questioned about their involvement with the Master Gardener program (Schrock, Meyer, Ascher, & Snyder, 2000). Participants rated gaining horticulture knowledge as their primary reason for participating in the program. The second reason for participation was helping others.

Rohs, Stribling and Westerfield (2002) reported findings of an in-depth study of Georgia Master Gardeners regarding their motives for volunteering. Data revealed that the greatest perceived societal benefit of Master Gardening was the program's ability to provide adults with an opportunity to gain horticulture knowledge. Other societal benefits from the Master Gardener program that rated highly in the study were a perceived improvement of the community and society as well as benefits to the local, state and national economy. The study also found that retention of Master Gardeners was directly related to an individual's perceived personal benefits from volunteering in the Master Gardener program.

Texas Master Gardeners in Bexar County were surveyed by Finch (1997) to determine why they applied to the program and continued to serve as Master Gardeners. Their main reasons for applying were, in order: 1. horticulture knowledge, 2. opportunity for community service, 3. camaraderie with other gardeners, and 4. fun projects. Reasons for continuing with the program were similar with the exception of camaraderie with other gardeners ranking above opportunity for community service.

Texas Master Gardeners were also the focus of a study completed by Mayfield and Theodori (2006). Four different Texas Cooperative Extension districts were represented by 94 Texas Master Gardener participants in this study. The primary reasons these Master Gardeners gave for being involved in the program included the training they received (92%), camaraderie with other gardeners (70%), and/or to give back to the community (64%).

There is still much debate about what specifically drives or motivates individuals to volunteer. The fundamental debate in this field of study is whether volunteers' motives are based out of a concern for themselves (egoistic) or a concern for others (altruistic) or both (Frisch & Gerrard, 1981; Latting, 1990; Okun, Barr, & Herzog, 1998). There are many reasons that people volunteer, and motives for volunteering are complex (Fischer & Schaffer, 1993). Fischer and Schaffer stated, "perhaps it is a package of motivations, not a single motivational impulse, that drives behavior" (p.51).

Older Adults and Volunteering

The proportion of older adults who volunteer has significantly increased in recent decades and that trend is expected to continue in coming years (Okun et al., 1998). As the baby-boomer generation retires from full-time employment, they will add to the pool of capable volunteers. Carpenter (1996) stated that this large group of environmentally conscious men and women will be looking for productive opportunities for service, and will bring with them higher expectations and skill levels than previous volunteer groups. Volunteer coordinators must be prepared to meet this challenge and provide opportunities that are exciting and speak to the talents and interests of the volunteers.

Volunteer activities enable older adults opportunities to share their experience, wisdom, and skills with both youth and adults (Rouse & Clawson, 1992). Volunteering also promotes successful and productive aging, and is favorable to the health and well-being of older adults (Baldock, 1999).

Older volunteers, age 50 and over, in Rouse and Clawson's study were motivated by achievement and affiliation and preferred purposive incentives to volunteer (1992). Respondents identified their most important achievement motives as: using skills they perform well, improving their community, using their time constructively, and learning new things. Important affiliation motives were: concern for helping others, working with fellow volunteers, and the warmth and friendliness of their volunteer group. The ability to help others was the most common reason for volunteering cited in this study as well as the one conducted by Morrow-Howell and Mui (1989).

Older adults were also questioned in the Marriott Seniors Volunteerism Study (Sneed, 1991) on their reasons for volunteering. Participants were allowed to choose more than one response. Eighty-three percent of respondents reported that they volunteered to help other people. Sixty-five percent of the respondents stated that feeling more useful or productive was their motive for volunteering. Half of the respondents felt that volunteering fulfilled a moral responsibility and one-third indicated that volunteering was a social obligation. One-fourth of the seniors volunteered as a means of finding companionship.

Rumsey (1996) conducted a study to learn more about the characteristics which motivate older adults 55 years of age and more to take a role as a volunteer for service organizations. Data were obtained from a sample of 275 volunteers, many of which were Washington State University Cooperative Extension Master Gardeners. The findings from this study showed the following: 1. there is a greater commitment to volunteerism from those individuals with higher levels of education and retirement status, 2. sociability

influenced rate of participation in volunteer programs, and 3. beginner and veteran volunteers showed no significant difference in regard to altruism factors.

Volunteer Management

Boyd (2004) describes a volunteer administrator as a person who directs or leads volunteers in an organization. Kotter (1990) states that a volunteer administrator decides what needs to be done, creates networks of people and relationships that can accomplish the task, and then, tries to ensure that those people complete the job.

Most leaders of volunteers are exposed to the profession of volunteer administration through on-the-job or previous volunteer experience (Fisher & Cole, 1993). In a study conducted in 2000 of the membership of the Association of Volunteer Administrators (AVA), it was found that 77.8% of volunteer administrators surveyed had received no formal training in volunteer administration prior to their first job experience as a volunteer administrator (Brudney & Schmahl, 2002).

Managers of volunteers must understand that volunteerism is not simply about getting a job done, rather it is about how to motivate people to get the job done (Carpenter, 1996). Understanding what motivates people to volunteer is a very important component of volunteer administration (Murk & Stephan, 1990).

Master Gardener Coordinators that capitalize on the skills and talents of veteran Master Gardeners enhance the overall quality of the Master Gardener Program while offering Master Gardeners more ownership in the program and providing options for continued involvement (VanDerZanden, 2001).

The field of volunteer management is becoming more professionalized, with a literature base, professional societies and formal education (Fisher & Cole, 1993).

Needs of County Extension Agents and Volunteer Coordinators

King and Safrit (1998) conducted a descriptive-coreational study to determine Ohio State University County Extension Agents' perceptions of the importance of and their perceived competence with selected volunteer management competencies. This study found that many Extension staff members may not emphasize a volunteer management system as a crucial part of volunteer programming efforts. Many of the programs that are conducted by County Extension Agents could be implemented by volunteers if a volunteer implementation strategy would be included as a fundamental part of the program or activity. The researchers go on to state that such a strategy could include: (a) volunteer job descriptions, (b) recruitment techniques, (c) program orientation and training materials, and (d) pre-developed program and volunteer evaluation forms.

Snider (1985) points out that there are opportunities for volunteer coordinators to give volunteers more program ownership when the agent allows volunteers to perform specifically identified program management tasks.

Rouse and Clawson (1992) state that the ability for County Extension Agents to satisfy motives and reward older adults with meaningful incentives will be critical in recruiting and retaining older adult volunteers.

A study was conducted by Cooper and Graham (2001) utilizing Arkansas Extension personnel to identify and describe competencies needed to be successful County Extension Agents and successful Extension administrators. The participants of this study, labeled thirty-nine competencies as highly important for success. These competencies were divided into seven categories as follows: 1. program planning, implementation, and evaluation; 2. public relations; 3. personal and professional development; 4. faculty/staff relations; 5. personal skills; 6. management responsibility; and 7. work habits. The researchers note that the educational level of today's audience has changed, and competence in program areas requires more specialized training.

The Delphi Technique

The Delphi technique is a research strategy that was employed in this research study. It was first developed by the Rand Corporation in the 1950s, as a technique primarily used for forecasting, policy investigations and goal-setting (Ulschak, 1983). The Delphi's purpose is to solicit reliable responses from a panel of experts regarding a specific problem or dilemma (Stitt-Gohdes & Crews, 2004). A panel of experts in a given field are utilized in the Delphi technique to develop consensus regarding the answer to a specific question or series of questions. A Delphi technique enables the exploration of creative ideas revealing highly reliable data that can be used for decision making (Rowe & Wright, 1999).

The Delphi technique uses experts to answer research questions in a more qualitative sense as opposed to quantitative (Kaynak, Bloom, & Leibold, 1994). The goal

of most Delphi studies is the creative and reliable exploration of ideas or the gathering of suitable data for decision-making (Alder & Ziglio, 1996; Rowe & Wright, 1999).

Linstone and Turoff (1975) describe Delphi as a method of conducting a group communication process, so that a group of individuals, as a whole, can deal with a complex problem. The Delphi approach accomplishes research objectives by allowing a group of individuals to reach consensus on a problem under consideration, without actually meeting face-to-face (Feret & Marcinek, 1999). This facilitates the exchange of information and ideas by allowing each participant to have an equal input, preventing bias caused by position, status or dominant personalities. Participants can respond individually and then reach consensus collectively.

The Delphi procedure is designed for the systematic solicitation of expert opinion and involves anonymous feedback made on two or more rounds by a panel of independent experts (Alder & Ziglio, 1996). The researcher gives these experts feedback between rounds. Responses made separately by panel members may highlight new ideas, which other participants had not previously considered. Participant responses are then collated and fed back to the panel in a synthesized form in the next Round. Participants are then asked for a further response, allowing them to revise their initial position if they so desire. This process is then repeated, with the aim of each Round being to produce a consensus among the panel which yields desired research results. Four important criteria characterize the Delphi method (Martino, 1983): 1. Anonymity is necessary to remove social pressures. 2. Iteration is important to allow panel members to review and change responses (revised questionnaire presented over a number of rounds until consensus is

reached). 3. Controlled feedback is important with each iteration, where panelists are allowed to review their previous responses based on the overall group responses. 4. Statistical aggregation is useful where results are typically given as a group median. The spread of results can be used as a measure of consensus reached.

The majority of the use of the Delphi technique in Agricultural Education has been in curriculum development; however, it has also been widely used to determine essential competencies in many fields (Martin & Frick, 1998; Shinn & Smith, 1999).

Summary

Volunteerism is a growing trend in America and an important function within the Cooperative Extension system. Understanding some of the primary motivations of Extension volunteers is fundamental to recruiting and retaining volunteers. The potential for Master Gardener volunteers to enhance and expand County Extension Agent programming efforts is enormous; however, for this potential to become a reality, Extension personnel must be equipped with the competencies needed to successfully coordinate volunteers.

The Delphi technique is a useful tool in deriving a consensus from a small panel of experts. This targeted research technique is a viable research option for compiling a list of competencies needed within a field of study.

CHAPTER III

METHODOLOGY

Purpose of the Study

The purpose of this study was to develop a list of best management competencies for Texas Cooperative Extension agents who are Master Gardener Coordinators.

Research Questions

To accomplish the purposes of this study, the following research questions were investigated:

1. What competencies do you need to be an efficient and effective Master Gardener Coordinator?
2. What are the perceived advantages of being a Master Gardener Coordinator?
3. What are the limiting factors (problems) of being a Master Gardener Coordinator?

The Delphi Procedure

A Delphi technique was utilized to develop group consensus in this descriptive research design. Guidelines for conducting this Delphi study followed those proposed by Linstone and Turoff (1975) and Turoff and Hiltz (2006).

The Delphi technique was developed as a methodology designed to elicit expert opinion in a systematic manner (Sackman, 1975). This technique can produce a reliable consensus among an expert group by a series of questionnaires combined with controlled

opinion feedback (Dalkey & Helmer, 1963). A Delphi study is typically conducted in a number of rounds. In the first round, a questionnaire is sent to panel members to complete and return, and their responses are analyzed. A new questionnaire is then created based upon the previous responses, and then sent to panel members. The goal of the series of questionnaires is to achieve consensus of opinion by allowing members to contemplate and re-rate their opinions regarding items in the questionnaire.

The Delphi method is reliable when an expert panel has at least 15 members and is a true representation of the expert community (Dalkey, Rourke, Lewis, & Snyder, 1972). Furthermore, a group size of 13 would provide reliability within a 0.90 correlation coefficient.

Martin and Frick (1998) note that articles describing research studies utilizing the Delphi technique have appeared in peer reviewed agricultural journals such as: Journal of Agricultural Education (and its predecessor, Journal of the American Association of Teacher Educators in Agriculture), Journal of Vocational Education Research, and Journal of Extension as well as Summaries of Research and Development Activities in Agricultural Education. The majority of these studies dealt with some aspect of curriculum development. The Delphi technique has also been utilized in the determination of essential competencies. Other specific uses of the Delphi method included an evaluation of perceptions, the identification of research needs as well as critical resources, the establishment of program objectives, the identification of barriers to effective programming, and to accomplish technological forecasting.

Because this research study would involve County Extension Agents working for Texas Cooperative Extension, it was important to have the permission and endorsement of Texas Extension administration prior to conducting this research. Kyle Smith, Texas Cooperative Extension's Associate Director for County Programs, was contacted, and the goals and procedures of this study were outlined for him. Smith was supportive, and allowed this study to proceed.

Panel of Experts

Recruitment of the panel of experts in a Delphi study is fundamental to the success of the research. Johnson (1976) notes that the goal should be to obtain members from a wide variety of backgrounds and positions in the subject area.

Recruitment for this study occurred in three stages. Stage 1 consisted of deriving a definition of an expert Texas Master Gardener Coordinator, as well as gaining the Texas State Master Gardener Coordinator's nominations of County Extension Agents to be used in this research project. Stage 2 sought Texas District Extension Administrators' (DEA's) nominations for County Extension Agents that should be considered for this study. Stage 3 was narrowing these two lists of potential participants to 20, and asking those County Extension Agents to join the expert panel for this study.

In September, 2006, Dr. Doug Welsh, the Texas State Master Gardener Coordinator, was solicited to define the qualities of an expert Texas Master Gardener Coordinator. Dr. Welsh responded with the following statements:

The definition of an ‘expert’ County Master Gardener Coordinator is somewhat amorphous. In practical terms, an expert Coordinator successfully plans, implements, and evaluates meaningful and relevant educational programs for clientele through the use of Master Gardener volunteers. The focus is on educating the clientele. The Master Gardener volunteers are a valuable resource to be trained, engaged, and properly managed by the Coordinator. In addition to meeting clientele needs, the Master Gardeners must gain personal, non-monetary benefits through training and service for a Coordinator to be considered successful in volunteer management.

The qualities associated with successful Coordinators vary significantly, as do personalities of Coordinators. Common competencies have been identified for successful volunteer managers and the identification of ‘Best Management Practices’ using these competencies can assist current and future Coordinators in becoming experts (Welsh, 2006).

Dr. Welsh was also asked to nominate at least 20 Texas Master Gardener Coordinator experts, both Agriculture and Natural Resource County Extension Agents as well as Horticulture County Extension Agents, that would be suitable participants in this study. Welsh’s list consisted of 22 Texas County Extension Agents who would qualify for the expert panel of this study.

Upon receiving Dr. Welsh’s definition of an expert Master Gardener Coordinator and his list of nominations, the twelve Texas Extension District Extension Administrators (DEA’s) were contacted by email to request their nominations. The email explained the purpose of the research, and asked the DEA’s to nominate up to two or three County Extension Agents in their Region that would fit the description of an expert Master Gardener Coordinator. Dr. Welsh’s definition of a Master Gardener Coordinator expert was shared with the DEA’s; however, his list of nominations was not shared with the DEA’s.

The lists of nominated expert Master Gardener Coordinators produced by both the statewide Master Gardener Coordinator, Dr. Doug Welsh and the twelve DEA's were reviewed to identify County Extension Agents receiving nominations from both sources. The final list of County Extension Agents invited to participate in this study were County Extension Agents that were nominated by Dr. Doug Welsh and their DEA. Twenty expert Master Gardener Coordinators were individually invited to participate in this study. An expert group of peers that are invited individually to participate in a Delphi study, will have increased participation as opposed to open invitations (Stitt-Gohdes & Crews, 2004). This final list of invited County Extension Agents was derived by comparing and contrasting Dr. Welsh's list of nominations and the list of County Extension Agents nominated by Extension DEA's.

Care was taken to ensure that the final list consisted of County Extension Agents who were: 1. either Agricultural and Natural Resources County Extension Agents or Horticulture County Extension Agents, 2. County Extension Agents representing both rural and urban counties, 3. County Extension Agents representing counties of various population sizes, 4. County Extension Agents from counties in Texas that would give geographic representation from the entire state and 5. County Extension Agents representing Master Gardener groups of all sizes.

These individuals were allocated an identification number known only to the researcher. Data were recorded according to identification numbers so as to ensure anonymity of participants. The data for this study were collected by email questionnaire during September through December, 2006.

Instrumentation

This study utilized a three-round Delphi method with the questionnaires designed by the researcher to achieve a consensus from a panel of experts based on multiple responses. Three rounds are optimal for a Delphi as results from four or more rounds show little change from the third round results and participants become disengaged due to repetition (Linstone & Turoff, 1975).

A sequential series of questionnaires was completed by a panel of Texas Cooperative Extension County Extension Agents involved in managing Master Gardeners. The goal of gathering these completed questionnaires was to derive a consensus among the panel of the best management practices for Texas Master Gardener coordinators. Responses from each round of questionnaires was collected and analyzed. Common and conflicting viewpoints were then identified. Responses from Round 1 were used to create Round 2, and responses from Round 2 were used to create Round 3. Consensus among the Delphi panel members was set a priori and defined when two-thirds of the panel members rated a statement “agree” (5) or “strongly agree” (6) using a six-point Likert scale.

Each round of the Delphi questionnaire was administered through email by the facilitator. In this research project, the researcher also acted as the Delphi facilitator. The facilitator contacted all nominated panel members by telephone to explain the research project, answer any questions and confirm their willingness to participate in all series of questionnaires.

Participants in this process were guaranteed anonymity. A numbered code was placed on each questionnaire to ensure confidential identification and track each panel member. Although participants' responses were anonymous, panel members were informed about who is actually involved in the group of Delphi respondents. Turoff and Hiltz (2006) note that an individual participant must feel that the other members of the panel are capable of contributing valuable insight about the problem being examined. This is an important factor in motivating participation.

All emails sent to participants were sent individually in an effort to ensure confidentiality as well as to encourage a response by making the email personal.

Respondents were informed of alternative ways to respond, such as printing the questionnaire and mailing back their response. Dillman (2000) states that many people find it easier to examine and respond to long messages if they are printed on paper; furthermore, this option may have helped to alleviate participant confidentiality concerns that an employer or outside party might read their email.

In order to control non-response bias, efforts were made to contact participants to encourage them to submit their completed questionnaires. Reminder messages were sent by email to participants if a questionnaire response deadline was drawing near and they had not yet responded. A replacement questionnaire was sent with this reminder message for participant convenience.

Data Collection

Round I

The 20 County Extension Agents invited to participate were sent separate emails summarizing the objectives of the study and the requirements of participation in terms of time and thought. Round 1 questionnaire containing guidelines for completing the questionnaire and three research questions was sent as an attachment to the invitation email. This enabled willing recipients to begin completing Round 1 questionnaire as soon as possible.

The initial round asked the panel of experts to respond to three open-ended questions. The panel was asked to respond with as many statements as they desired to the following questions: 1. What competencies do you need to be an efficient and effective Master Gardener Coordinator? 2. What are the perceived advantages of being a Master Gardener Coordinator? 3. What are the limiting factors (problems) of being a Master Gardener Coordinator?

Participants were provided one week to complete and return the questionnaire. Respondents were informed of alternative ways to respond, such as printing the questionnaire and mailing back their response or faxing their response. Four days after the initial emailing to the potential participants, a reminder email was sent to those that had not already accepted the invitation to join or had not already completed Round 1 questionnaire. Furthermore, the researcher also made an effort to contact these potential participants by telephone in an effort to increase response and answer any questions they

might have. A telephone message was left for any potential participants that could not be reached in person.

Round 1 questionnaire was sent electronically twice in following Dillman's Technique (Dillman, 2000). The responses made by participants to the three questions in Round 1 were analyzed and coded using qualitative research methodology outlined by Dooley and Murphy (2001).

Fifteen of the original 20 members of the expert panel responded to the first round for a response rate of seventy-five percent.

Round II

The researcher examined the statements identified in Round I to find commonalities among them and to combine similar statements. Combining similar statements resulted in 67 competency statements, 31 statements of benefits and 22 statements regarding limitations. These statements were used to create the questionnaire for Round 2. In Round 2, the expert panel was asked to rate their strength of agreement with each statement on a six-point Likert-type scale where 6 was assigned to "Strongly Agree," 5 was assigned to "Agree," 4 was assigned to "Somewhat Agree," 3 was assigned to "Somewhat Disagree," 2 was assigned to "Disagree," and 1 was assigned to "Strongly Disagree." All fifteen panel members who responded in Round I also responded in Round II.

Round 2 data were analyzed using SPSS 12.0 for Windows software as well as Microsoft® Excel software. Descriptive statistics were used to summarize data.

Round III

The purpose of Round 3 was to develop consensus among the panel members. The panel members were sent a third revised instrument and asked to re-evaluate each statement using the same six-point Likert-type scale. This allowed participants to either retain their initial score or revise it up or down. Participant's scores were not revealed to the entire group, only to the participant who owned the score. The 120 statements that were sent in Round 2 and rated by the panel were once again sent to the panel along with additional information for a final rating. The additional information was the mean score that each statement received from the panel in Round 2, the percentage of the panel that gave that particular statement a "5" (agree) or "6" (strongly agree) rating, and the rating that they as a panel member gave each specific statement in Round 2.

Consensus was derived with 15 of the 20 experts questioned responding to all three rounds of questionnaires.

Validity

Two threats to internal validity existed in this study. Those were mortality and subject characteristics.

A mortality threat existed as participants in this study consisted of Extension Agents who were very busy with their full-time positions. Furthermore, there was a span of time between each questionnaire round which increased the risk of a mortality threat. The researcher attempted to control mortality by emphasizing to the expert panel the

importance of their individual contribution to the study and the imperative nature that they complete all three rounds. Participants were reminded that this study would improve Texas Cooperative Extension and Master Gardener Coordinators, and they were reminded that this activity could be reported on their “Organizational Support” Extension plan of work. The researcher also focused on completing the project in a quick and efficient manner to decrease the time span between each round.

Attitude of subjects may also pose a threat to internal validity. Subjects may not answer all questions on a survey instrument for various reasons, which affect, but are unrelated to, the study. The researcher attempted to control this threat by stressing the importance of answering all questions. Some subjects may show bias to particular areas on the questionnaire due to their expertise and involvement in particular fields. The consensus nature of this study controlled this threat by using collective opinions obtained through the three rounds of questionnaires.

Reliability

The Delphi method is reliable when an expert panel has at least 15 members and is a true representation of the expert community (Dalkey et al., 1972). Furthermore, a group size of 13 would provide reliability within a 0.90 correlation coefficient.

CHAPER IV

RESULTS

Introduction

The purpose of this study was to develop a list of best management competencies and practices for Texas Cooperative Extension agents who are Master Gardener coordinators. Texas Cooperative Extension Agents (N=15) participated as expert panel members in a three-round Delphi procedure lasting beginning in October 2006 and concluding December 2006 (Table 4.1). The questionnaires utilized for each of the three rounds may be viewed in Appendix B.

Three questions were submitted to the panel, and responses given by individual panel members were then rated by the entire panel to establish level of agreement. Data were collected and analyzed to determine consensus, or the lack there of, for these individual statements. Round one produced 120 statements once consolidation of like statements was made by the researcher (Table 4.1). The expert panel yielded a consensus on 87 of the 120 statements in Round two (Table 4.1). The final number of statements receiving consensus from the Delphi panel was 85 statements of the original 120 (Table 4.1).

Table 4.1: Description of the Delphi Panel Response, Time Line, and Statements Retained in each Delphi Round Regarding Research Questions.

	Round 1	Round 2	Round 3
Panel Response	15	15	15
Date Emailed	Oct 30, 2006	Nov 17, 2006	Dec 12, 2006
Return Requested	Nov 6, 2006	Nov 29, 2006	Dec 20, 2006
Consolidated Panel Statements Created	120	--	--
Panel Statements Retained Through Consensus	--	87	85

The Delphi Panel

Nine of the twelve Texas Cooperative Extension Districts were represented by the fifteen expert panel participants in this study (Table 4.2). This gave wide representation of the entire state of Texas.

All of the Delphi expert panel members were Texas Cooperative Extension, County Extension Agents (CEA's). Nine (60%) participants were Horticulture (HORT) County Extension Agents, while the other six (40%) of the fifteen participants were Agriculture and Natural Resource (ANR) County Extension Agents (Table 4.2). The expert panel population was comprised of thirteen (87%) males and two (13%) females. The mean years of service as a County Extension Agent was 19 years (SD=9.95), and the mean years as a Master Gardener Coordinator was 10 years (SD=7.07) (Table 4.3). The mean number of Master Gardeners managed by each Agent was 164 (SD=94.73) (Table 4.3).

Fourteen of 15 (93.33%) expert panel members had one primary Texas county where they served and reported. The one exception was a County Extension Agent in the

Far West Extension District who was responsible for both Midland and Ector Counties (Table 4.2). The county(ies) population ranged from 22,000 to 2,300,000, with a mean population of 495,956 (SD=701,749) (Table 4.2).

Table 4.2: Counties, Extension Districts and Population Size of Areas Served by Participating Delphi Panel Members.

County(ies) Served	Extension District	Extension District Title	County(ies) Population	Panel Member Title
Potter	1	Panhandle	220,000	CEA-ANR
Parker	3	Rolling Plains	103,000	CEA-ANR
Denton	4	North	550,000	CEA-HORT
Dallas	4	North	2,300,000	CEA-HORT
Tarrant	4	North	2,000,000	CEA-HORT
Smith	5	East	100,000	CEA-HORT
Midland & Ector	6	Far West	240,000	CEA-HORT
El Paso	6	Far West	750,000	CEA-HORT
Tom Green	7	West Central	110,000	CEA-HORT
Bell	8	Central	297,000	CEA-ANR
Galveston	9	Southeast	265,000	CEA-HORT
Montgomery	9	Southeast	350,000	CEA-HORT
Walker	9	Southeast	62,343	CEA-ANR
Aransas	11	Coastal Bend	22,000	CEA-ANR
Victoria	11	Coastal Bend	70,000	CEA-ANR

Table 4.3: Descriptive Statistics Related to Expert Panel.

	n	Minimum	Maximum	Mean	SD
Population of County(ies) served by Participants	15	22,000	2,300,000	495,956	701,749
Years as Extension Agent	15	3	31	19.27	9.95
Years as Master Gardener Coordinator	15	3	28	10.27	7.07
Current No. of Master Gardener Volunteers	15	70	400	163.67	94.73

The Texas Master Gardener Association (2006) gives three size categories for Texas Master Gardener groups. Small groups are made of Master Gardener groups with 1-50 volunteers. Medium groups have 51-140 members. Large groups have 141 or more Master Gardener volunteers. In this study, the expert panel represented no (0%) small groups, ten (66.67%) medium groups and five (33.33%) large groups.

Round I

Research Question One

The first question that the expert panel was asked to respond to was, “What competencies do you need to be an efficient and effective Master Gardener Coordinator?” The panel was encouraged to respond to this question with as many statements as they desired. The panel responded with 95 original statements answering this question. These statements were examined by the researcher to find commonalities among them and to combine similar statements. This task condensed the list to 67 statements. These statements have been sorted by the researcher into the five constructs developed by Boyd (2004). These constructs and the number of statements from this study that accompany the constructs are as follows: organizational leadership (n=10), systems leadership (n=8), organizational culture (n=15), personal skills (n=17) and management skills (n=17). The constructs and their accompanying statements may be found in Appendix C.

Research Question Two

The second question that the expert panel was asked to respond to was, “What are the perceived advantages of being a Master Gardener Coordinator?” The panel responded with 47 original statements answering this question. These statements were examined by the researcher to find commonalities among them and to combine similar statements. This procedure condensed the list to 31 statements (Appendix C) that were utilized in Round 2 and rated for strength of agreement by the panel.

Research Question Three

The third and final question that the Delphi panel was asked in Round 1 was, “What are the limiting factors (problems) of being a Master Gardener Coordinator?” The panel responded with 43 original statements answering this question. These statements were examined by the researcher to find commonalities among them and to combine similar statements. This procedure condensed the list to 22 statements (Appendix C) that were utilized in Round 2 and rated for strength of agreement by the panel.

Round II

Introduction

The purpose of Round 2 was to begin the process of the Delphi panel members reaching a consensus regarding the answers given for the original three research questions. To start this process, panel members gave ratings of agreement in Round 2 to

the 120 consolidated response statements for the three research questions. Individual questionnaires completed by the fifteen participants were analyzed for strength of agreement by the researcher utilizing Microsoft® Office Excel 2003 and SPSS 12.0 software. Consensus among the Delphi panel members was set a priori and defined when two-thirds of the panel members rated a statement “agree” (5) or “strongly agree” (6) using a six-point Likert scale. In this study, consensus was reached when 10 of the 15 participants (66.67%) rated a statement as “agree” (5) or “strongly agree” (6).

Research Question One

The expert panel found consensus on 64 of the 67 statements in Round 2 related question one, “What Competencies Do You Need to be an Efficient and Effective Master Gardener Coordinator?” Twenty-three of these statements had all 15 (100%) of the panel members give a rating of “agree” (5) or “strongly agree” (6) (Table 4.4). Another 27 statements achieved consensus with 86.67 – 93.99% of the panel (13 to 14 members) giving a rating of “agree” (5) or “strongly agree” (6) (Table 4.5). Fourteen statements achieved consensus with anywhere from ten to twelve panel members (66.67 – 80%) rating them “agree” (5) or “strongly agree” (6) (Table 4.6).

Table 4.4: Statements in Round 2 Reaching Consensus with 100% of the Panel (n=15) Giving Either a “5” or a “6” Rating of Agreement, on a Scale of 1-6*, to the Question: What Competencies Do You Need to be an Efficient and Effective Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Ability to articulate Extension’s mission and goals to the Master Gardeners	5.93	.26	15	100
Respect for the time and contributions of your volunteers	5.80	.41	15	100
Positive attitude	5.80	.41	15	100
Enjoy “working” with people	5.80	.41	15	100
Ability to communicate what the MG organization is doing and where it is going	5.73	.46	15	100
Expressing gratitude to the Master Gardeners often	5.73	.46	15	100
Praising Master Gardeners to people outside of the organization	5.73	.46	15	100
Following through with what you say you will do	5.73	.46	15	100
“People” skills	5.67	.49	15	100
Management skills	5.67	.49	15	100
Ability to communicate a shared vision	5.67	.49	15	100
Ability to effectively enlist the assistance of your Master Gardeners	5.67	.49	15	100
Ability to inspire your volunteers to rise to the challenge	5.67	.49	15	100
Willingness to let volunteers plan and implement programs, yet be involved enough to provide guidance, assure accuracy of information, and compliance with Texas Cooperative Extension requirements	5.67	.49	15	100
Trusting volunteers to complete tasks given to them	5.60	.51	15	100
Letting the volunteers know you are “going to bat” for them	5.60	.51	15	100
Commitment to the mission of the group	5.53	.52	15	100
Ability to facilitate	5.53	.52	15	100
Plan and implement training for volunteers	5.53	.52	15	100
Avoiding micro-managing the volunteers	5.47	.52	15	100
Ability to think big but start small by seeing the big picture while identifying the individual steps to accomplish your goals	5.40	.51	15	100
Ability to identify and communicate the organization’s strengths and weaknesses	5.40	.51	15	100
Oral communication skills	5.33	.52	15	100

* Scale ratings are as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree

Table 4.5: Statements in Round 2 Reaching Consensus with 86.67 - 93.33% of the Panel (n=15) Giving Either a “5” or a “6” Rating of Agreement, on a Scale of 1-6*, to the Question: What Competencies Do You Need to be an Efficient and Effective Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Crediting your program’s successes on the hard work and determination of your volunteers	5.73	.59	14	93.33
Interest in helping the public	5.67	.62	14	93.33
Leading with a shared vision and shared purpose	5.67	.62	14	93.33
Leadership skills	5.67	.62	14	93.33
Motivational skills	5.60	.63	14	93.33
Willingness to do the very things you ask of your volunteers	5.60	.63	14	93.33
Patience	5.60	1.63	14	93.33
Ability to identify and communicate the need’s of the organization	5.47	.64	14	93.33
Patient steering of volunteers in the right direction	5.47	.64	14	93.33
Personal flexibility	5.47	.64	14	93.33
Listening skills	5.40	.63	14	93.33
Ability to give the volunteers the proper amount of responsibility within the organization	5.40	.63	14	93.33
Allowing tasks to be completed in ways that you would not have personally done them	5.33	.62	14	93.33
Realization as an agent, you don’t and can’t possibly know everything	4.40	1.30	14	93.33
Knowing your volunteers and their life experiences and respecting them as professionals	5.47	.74	13	86.67
Fairness with everyone	5.40	1.35	13	86.67
Organizational skills	5.33	.72	13	86.67
Goal orientation	5.33	.72	13	86.67
Ability to communicate Extension policies and procedures effectively	5.33	.72	13	86.67
Conflict resolution skills	5.33	.72	13	86.67
Expecting volunteers to follow through with what they say they will do	5.33	.72	13	86.67
Willingness to stand firm on your policies	5.33	.90	13	86.67
Written communication skills	5.33	.72	13	86.67
Availability to Master Gardeners if they need assistance or advice	5.27	.70	13	86.67
Ability to identify volunteer’s strengths and weaknesses and see where they would best function within the organization	5.21	.90	13	86.67
Commitment to gaining knowledge of subject matter	5.20	1.01	13	86.67

* Scale ratings are as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree

Table 4.6: Statements in Round 2 Reaching Consensus with 80% and Fewer of the Panel (n=15) Giving Either a “5” or a “6” Rating of Agreement, on a Scale of 1-6*, to the Question: What Competencies Do You Need to be an Efficient and Effective Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Ability to develop the proper balance of ownership of the Master Gardener program between the volunteers and the Extension Agent	5.40	.99	12	80
Time management skills	5.33	.98	12	80
Ability to delegate work	5.33	.98	12	80
Ability to say “No”	5.27	.80	12	80
Finding ways to secure resources, training, etc.	5.20	.77	12	80
Committee work	5.20	.77	12	80
Ability to understand the true source of conflict	5.13	.74	12	80
Ability to conduct a sound program development and structuring process	5.13	.92	12	80
Willingness to be present at a majority of MG-related events (training sessions, monthly meetings, major planning sessions, MG-sponsored educational events)	5.13	1.06	12	80
Constantly communicating your messages, not just to Master Gardeners and not just at meetings	5.00	.85	12	80
Ability to offer guidance to autonomous association, yet maintain direction within Texas Cooperative Extension parameters	5.00	1.31	12	80
Strong consensus building skills	5.07	.80	11	73.33
Computer skills (word processing, internet usage, etc...)	4.93	.80	10	66.67
Cautious understanding that decisions the coordinator makes become policy	4.93	1.13	10	66.67

* Scale ratings are as follows: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Somewhat Disagree*, 4 = *Somewhat Agree*, 5 = *Agree*, 6 = *Strongly Agree*

Three of the 67 statements related to competencies needed by Master Gardener Coordinators did not reach consensus in Round 2, meaning that less than 10 panel members gave ratings of “agree” (5) or “strongly agree” (6) on these three statements (Table 4.7). Just over half of the participants (n=8, 53.33%) gave a rating of “agree” (5) or “strongly agree” (6) to the statement “Technical competencies in the scientific principles of horticulture and environmental stewardship” (Table 4.7). The competency statement, from the list of 67 statements given for research question one, that had the lowest mean panel rating (M=4.27, SD=1.03) was “Background in volunteer coordination” with only five of the fifteen Delphi panel members giving it a rating of “agree” (5) or “strongly agree” (6) (Table 4.7).

Table 4.7: Statements in Round 2 Not Reaching Consensus and the Panel’s (n=15) Ratings of Agreement on a Scale of 1-6* made to the Question: What Competencies Do You Need to be an Efficient and Effective Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Technical competencies in the scientific principles of horticulture and environmental stewardship	4.73	1.10	8	53.33
Handwritten cards sent to Master Gardeners	4.53	.99	7	46.67
Background in volunteer coordination	4.27	1.03	5	33.33

* Scale ratings are as follows: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Somewhat Disagree*, 4 = *Somewhat Agree*, 5 = *Agree*, 6 = *Strongly Agree*

Research Question Two

The second question that the expert panel was asked to respond to was, “What are the perceived advantages of being a Master Gardener Coordinator?” Data analysis revealed that consensus was reached on 19 of the original 31 statements (Table 4.8) regarding perceived benefits of being a Master Gardener Coordinator. The entire Delphi panel (n=15, 100%) gave a rating of “agree” (5) or “strongly agree” (6) to the following statements regarding benefits: “Increase Extension’s impact in community,” “Expands the reach of the agent,” “Satisfaction of seeing people accomplish good things for others,” and “Working with people who want to improve their community” (Table 4.8).

Table 4.8: Statements in Round 2 Reaching Consensus and the Panel’s (n=15) Ratings of Agreement on a Scale of 1-6* made to the Question: What are the Perceived Benefits of Being a Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Increase Extension’s impact in community	5.80	.41	15	100
Expands the reach of the agent	5.67	.49	15	100
Satisfaction of seeing people accomplish good things for others	5.60	.51	15	100
Working with people who want to improve their community	5.47	.52	15	100
Satisfaction of helping people grow in their knowledge	5.47	.64	14	93.33
Excellent grass roots support base	5.47	.64	14	93.33
Ability to affect change where needed	5.40	.63	14	93.33
Ability to address more issues	5.40	.63	14	93.33
Satisfaction of helping others	5.33	.62	14	93.33
Develops leaders	5.40	.74	13	86.67
Positive advocates of extension willing to interpret benefits to decision makers	5.33	.72	13	86.67
Work with highly motivated volunteers	5.33	.72	13	86.67
Association with productive people from diverse backgrounds	5.13	.64	13	86.67
Ability to conduct large educational endeavors	5.00	1.25	13	86.67
Having volunteers who can help with the program area requirements	4.87	1.30	13	86.67
Additional help to address programming needs	5.27	.80	12	80
Work with people who love horticulture	4.93	1.03	11	73.33
Increase accomplishments of agent	5.00	1.00	10	66.67
Reaching audiences not typically addressed due to lack of time	4.93	.96	10	66.67

* Scale ratings are as follows: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Somewhat Disagree*, 4 = *Somewhat Agree*, 5 = *Agree*, 6 = *Strongly Agree*

Twelve of the 31 statements regarding perceived benefits of being a Master Gardener Coordinator did not attain consensus in Round 2 (Table 4.9). These twelve did not meet the a priori agreement of at least two-thirds of the panel (n=10, 66.67%) rating a statement “agree” (5) or “strongly agree” (6).

One benefit statement, “Increased contacts,” (M=4.73, SD=1.16) needed only one more Delphi participant to give a rating of “agree” (5) or “strongly agree” (6) in order to reach consensus of agreement (Table 4.9).

Within the twelve statements for research question two, four items revealed a mean value of less than 3.0. These were: “Reduction of agent workload addressing horticulture education issues” (M=2.93, SD=1.71), “Work with a select class of people” (M=2.80, SD=1.61), “Everything Master Gardeners do is for the agent” (M=2.33, SD=1.05), “There are none” (M=1.27, SD=.71). Two statements, “Everything Master Gardeners do is for the agent,” (M=2.33, SD=1.05) and “There are none (benefits)” (M=1.27, SD=.71) did not receive a rating of “agree” (5) or “strongly agree” (6) from any expert panel members (Table 4.9).

Table 4.9: Statements in Round 2 Not Reaching Consensus and the Panel's (n=15) Ratings of Agreement on a Scale of 1-6* made to the Question: What are the Perceived Benefits of Being a Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Increased contacts	4.73	1.16	9	60
Reaching audiences not typically addressed due to lack of resources	4.67	1.05	8	53.33
Personal development	4.60	.83	8	53.33
Help with routine or repetitive educational aspects of job	4.47	1.25	7	46.67
Having a group that can raise funds to underwrite educational program expenses	4.07	1.49	6	40
Volunteer program looks good on reports and personal dossier	3.93	1.62	6	40
Reaching audiences not typically addressed due to lack of subject knowledge of agent	3.67	1.88	5	33.33
Prestige in the community for excellence in chosen specialty	3.87	1.25	4	26.66
Reduction of agent workload addressing horticulture education issues	2.93	1.71	3	20
Work with a select class of people	2.80	1.61	2	13.33
Everything Master Gardeners do is for the agent	2.33	1.05	0	0
There are none	1.27	.71	0	0

* Scale ratings are as follows: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Somewhat Disagree*, 4 = *Somewhat Agree*, 5 = *Agree*, 6 = *Strongly Agree*

Research Question Three

Delphi members rated consolidated statements regarding research question three, “What are the Limiting Factors (Problems) of being a Master Gardener Coordinator?” Data analysis revealed that consensus was reached in Round 2 on four of the 22 statements (Table 4.10) regarding this topic.

There was not a single statement regarding the problems associated with being a Master Gardener Coordinator that the entire panel (n=15, 100%) could find agreement about; therefore, there is no problem statement where all fifteen panel members rated a statement as “agree” (5) or “strongly agree” (6) (Table 4.10). The problem statements that did attain consensus of agreement were related to Cooperative Extension Agents’

increased time demands, workload and responsibilities as well as having to handle issues and complaints that arise within the Master Gardener group (Table 4.10). County Extension Agents having increased time requirements due to volunteer programs is a common problem according to Laughlin (1990).

Table 4.10: Statements in Round 2 Reaching Consensus and the Panel's (n=15) Ratings of Agreement on a Scale of 1-6* made to the Question: What are the Limiting Factors (Problems) of Being a Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Takes a great deal of the agent's time	5.27	1.33	13	86.67
Increased workload	5.07	1.44	12	80
The agent is ultimately responsible for the volunteers and the MG program	4.67	1.35	10	66.67
Agent must handle issues and complaints	4.73	1.28	10	66.67

* Scale ratings are as follows: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Somewhat Disagree*, 4 = *Somewhat Agree*, 5 = *Agree*, 6 = *Strongly Agree*

Eighteen of the statements associated with problems of being a Master Gardener Coordinator had nine or fewer panelist (60% or less) give a rating of “agree” (5) or “strongly agree” (6) and did not reach consensus (Table 4.10). Two statements lacked one panel member giving a rating of “agree” (5) or “strongly agree” (6) in order to attain consensus of agreement. Those statements included: “Finding the right balance of program responsibility between agent and volunteers,” (M=4.53, SD=1.30, n=9, 60%) and “It is a never ending, year round process,” (M=4.67, SD=1.63, n=9, 60%) (Table 4.11). Three of the eighteen statements revealed a mean value of 3.0 or less. These were: “Not knowing which schools are involved in Junior Master Gardeners (JMG)” (M=3.00, SD=1.46), “There are none” (M=1.60, SD=1.40), “Lack of technical

knowledge in ornamental horticulture” (M=2.47, SD=1.13) (Table 4.11). No panel members that gave the statement, “Lack of technical knowledge in ornamental horticulture” (M=2.47, SD=1.13) a rating of “agree” (5) or “strongly agree” (6) (Table 4.10).

Table 4.11: Statements in Round 2 Not Reaching Consensus and the Panel’s (n=15) Ratings of Agreement on a Scale of 1-6* made to the Question: What are the Limiting Factors (Problems) of Being a Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Finding the right balance of program responsibility between agent and volunteers	4.53	1.30	9	60
It is a never ending, year round process	4.67	1.63	9	60
Potential negative experience for new employees not used to the hours or management skills required to juggle so many projects at the same time	4.27	1.87	8	53.33
Finding the right balance of program ownership between agent and volunteers	4.00	1.51	7	46.67
Managing conflict	4.00	1.69	7	46.67
Personality problems between members	4.27	1.67	6	40
Hidden problems within the MG organization	4.00	1.73	6	40
Expectations from Extension	4.07	1.39	6	40
A strong service ethic (within the MG program) takes time to develop	3.87	1.68	6	40
Funds for projects, events and other activities	3.33	1.59	4	26.67
Keeping volunteers in line with Texas Cooperative Extension’s mission	3.87	1.51	4	26.67
Volunteers may not do what the agent desires	3.73	1.39	3	20
Keeping volunteers on task	3.67	1.34	3	20
Having to address recurring problems through training and education	3.47	1.25	3	20
Trying on agent’s patience	3.40	1.35	3	20
Not knowing which schools are involved in Junior Master Gardeners (JMG)	3.00	1.46	2	13.33
There are none	1.60	1.40	1	6.67
Lack of technical knowledge in ornamental horticulture	2.47	1.13	0	0

* Scale ratings are as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree

Consensus of agreement data was analyzed and compared between Round 2 and Round 3 for each of the three research questions. These data show that there were only minor differences in agreement between Round 2 and Round 3; therefore, the researcher focused attention on the results of Round 3. Table 4.12 reveals how the Delphi panel's consensus of agreement changed from Round 2 to Round 3 for the three research questions. As a result, the researcher decided to highlight the results in Round 3.

Table 4.12: Number of Statements Reaching Consensus of Agreement Regarding the Three Research Questions in Round 2 and Round 3.

Research Question	Round 2	Round 3	% Change
What are the competencies needed to be an effective Master Gardener Coordinator?	64	64	0%
What are the perceived benefits of being a Master Gardener Coordinator?	19	19	0%
What are the limiting factors (problems) of being a Master Gardener Coordinator?	4	2	-50%

Round III

Introduction

The purpose of Round 3 was for panel members to have an opportunity to re-rate and validate the consolidated statements that they had rated from Round 2 based upon panel consensus. This was an effort to gain accuracy of consensus on these items. In Round 3, participants were shown the same statements as in Round 2; however, they were also given panel and personal data from Round 2 for each statement. These data included the percentage of panel members rating a statement “agree” (5) or “strongly agree” (6) using a six-point Likert scale, the mean rating value given by the panel for

each statement, and the individual panel member's Round 2 rating for each statement. Furthermore, statements achieving consensus (at least 10 of the 15 panel members [66.67%] rating a statement as "agree" [5] or "strongly agree" [6]) in Round 2 were set in bold font in Round 3 for clarification and reference.

Research Question One

The expert panel found consensus on 64 of the 67 statements in Round 3 related question one, "What Competencies Do You Need to be an Efficient and Effective Master Gardener Coordinator?" Twenty-eight of these statements had all 15 (100%) of the panel members give a rating of "agree" (5) or "strongly agree" (6) (Table 4.13). Another 27 statements achieved consensus with 86.67 – 93.99% of the panel (13 to 14 members) giving a rating of "agree" (5) or "strongly agree" (6) (Table 4.14). Nine statements achieved consensus with anywhere from ten to twelve panel members (66.67 – 80%) rating them "agree" (5) or "strongly agree" (6) (Table 4.15).

Volunteers need the guidance of administrators who can focus their efforts toward productive outcomes (Boyd, 2004; King & Safrit, 1998; Wolford et al., 2001). Participants in this study concurred with these thoughts, as 100% (n=15) of them gave a rating of "agree" (5) or "strongly agree" (6) to the following competency statements: "ability to articulate Extension's mission and goals to the Master Gardeners" (M=5.93, SD=.26); "leading with a shared vision and shared purpose" (M=5.73, SD=.46); "leadership skills" (M=5.73, SD=.46); "management skills" (M=5.73, SD=.46); "ability to communicate what the MG organization is doing and where it is going" (M=5.73,

SD=.46); “ability to communicate a shared vision” (M=5.67, SD=.49); “willingness to take the time necessary to meet with Master Gardener program leaders to discuss objectives and answer questions” (M=5.60, SD=.51); and “ability to facilitate” (M=5.53, SD=.52) (Table 4.13). A number of other competency statements in this study that support this theme and that also reached consensus with 86.67% (n=13) of the panel members giving each statement a rating of “agree” (5) or “strongly agree” (6). These statements are: “ability to communicate Extension policies and procedures effectively” (M=5.27, SD=.70); “availability to Master Gardeners if they need assistance or advice”, (M=5.20, SD=.68); “ability to conduct a sound program development and structuring process“ (M=5.20, SD=.86); “ability to identify volunteer’s strengths and weaknesses and see where they would best function within the organization” (M=5.20, SD=.86); and “ability to offer guidance to autonomous association, yet maintain direction within Texas Cooperative Extension parameters” (M=5.00, SD=1.25) (Table 4.14).

These data shown in Table 4.11 study support the statements of Snider (1985) and King and Safrit (1998) that Extension programs are strongest when Extension professionals and volunteers have a partnership and a balance of program ownership. Consensus within the panel was found when 100% (n=15) of the panel gave a rating of “agree” (5) or “strongly agree” (6) to the following competencies needed to be an effective and efficient Master Gardener Coordinator: “Willingness to let volunteers plan and implement programs, yet be involved enough to provide guidance, assure accuracy of information, and compliance with Texas Cooperative Extension requirements” (M=5.73, SD=.46); “Ability to effectively enlist the assistance of your Master Gardeners” (M=5.67,

SD=.49); “Allowing tasks to be completed in ways that you would not have personally done them” (M=5.60, SD=.51); and “Ability to give the volunteers the proper amount of responsibility within the organization” (M=5.53, SD=.52). Another statement reaching consensus among the panel with a rating of “agree” (5) or “strongly agree” (6) by 12 (80%) of the participants was the “Ability to develop the proper balance of ownership of the Master Gardener program between the volunteers and the Extension Agent” (M=5.40, SD=.99) (Table 4.15).

Snider (1985) also noted the importance of a volunteer coordinator’s confidence, attitude and actions for the success of an Extension volunteer program. The Delphi panel agreed with Snider, and 100% (n=15) of them gave a rating of “agree” (5) or “strongly agree” (6) to the competencies of a “Positive attitude” (M=5.80, SD=.41) and “Ability to inspire your volunteers to rise to the challenge” (M=5.73, SD=.46) (Table 4.13). Fourteen (93.33%) of the participants gave a rating of “agree” (5) or “strongly agree” (6) to “Motivational skills” (M=5.60, SD=.63) as a competency needed by Extension personnel to be an effective and efficient Master Gardener Coordinator (Table 4.14).

Table 4.13: Statements in Round 3 Reaching Consensus with 100% of the Panel (n=15) Giving Either a “5” or a “6” Rating of Agreement on a Scale of 1-6* made to the Question: What Competencies Do You Need to be an Efficient and Effective Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Respect for the time and contributions of your volunteers	5.93	.26	15	100
Ability to articulate Extension’s mission and goals to the Master Gardeners	5.93	.26	15	100
Positive attitude	5.80	.41	15	100
Enjoy “working” with people	5.80	.41	15	100
Following through with what you say you will do	5.80	.41	15	100
Ability to inspire your volunteers to rise to the challenge	5.73	.46	15	100
Leading with a shared vision and shared purpose	5.73	.46	15	100
Willingness to let volunteers plan and implement programs, yet be involved enough to provide guidance, assure accuracy of information, and compliance with Texas Cooperative Extension requirements	5.73	.46	15	100
Leadership skills	5.73	.46	15	100
“People” skills	5.73	.46	15	100
Management skills	5.73	.46	15	100
Expressing gratitude to the Master Gardeners often	5.73	.46	15	100
Praising Master Gardeners to people outside of the organization	5.73	.46	15	100
Ability to communicate what the MG organization is doing and where it is going	5.73	.46	15	100
Letting the volunteers know you are “going to bat” for them	5.67	.49	15	100
Ability to communicate a shared vision	5.67	.49	15	100
Ability to effectively enlist the assistance of your Master Gardeners	5.67	.49	15	100
Allowing tasks to be completed in ways that you would not have personally done them	5.60	.51	15	100
Trusting volunteers to complete tasks given to them	5.60	.51	15	100
Avoiding micro-managing the volunteers	5.60	.51	15	100
Willingness to take the time necessary to meet with Master Gardener program leaders to discuss objectives and answer questions	5.60	.51	15	100
Plan and implement training for volunteers	5.57	.51	15	100
Ability to give the volunteers the proper amount of responsibility within the organization	5.53	.52	15	100
Commitment to the mission of the group	5.53	.52	15	100
Ability to facilitate	5.53	.52	15	100
Oral communication skills	5.47	.52	15	100
Ability to think big but start small by seeing the big picture while identifying the individual steps to accomplish your goals	5.47	.52	15	100
Ability to identify and communicate the organization’s strengths and weaknesses	5.40	.51	15	100

* Scale ratings are as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree

Table 4.14: Statements in Round 3 Reaching Consensus with 86.67 - 93.33% of the Panel (n=15) Giving Either a “5” or a “6” Rating of Agreement on a Scale of 1-6* made to the Question: What Competencies Do You Need to be an Efficient and Effective Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Crediting your program’s successes on the hard work and determination of your volunteers	5.73	.59	14	93.33
Interest in helping the public	5.67	.62	14	93.33
Motivational skills	5.60	.63	14	93.33
Patience	5.53	.64	14	93.33
Patient steering of volunteers in the right direction	5.47	.64	14	93.33
Personal flexibility	5.47	.64	14	93.33
Ability to identify and communicate the needs of the organization	5.47	.64	14	93.33
Fairness with everyone	5.47	1.30	14	93.33
Written communication skills	5.40	.63	14	93.33
Listening skills	5.33	.62	14	93.33
Finding ways to secure resources, training, etc.	5.33	.62	14	93.33
Realization as an agent, you don’t and can’t possibly know everything	5.33	1.29	14	93.33
Ability to understand the true source of conflict	5.27	.59	14	93.33
Willingness to do the very things you ask of your volunteers	5.53	.74	13	86.67
Willingness to stand firm on your policies	5.40	.74	13	86.67
Conflict resolution skills	5.33	.72	13	86.67
Organizational skills	5.33	.72	13	86.67
Expecting volunteers to follow through with what they say they will do	5.33	.72	13	86.67
Knowing your volunteers and their life experiences and respecting them as professionals	5.33	.72	13	86.67
Goal orientation	5.33	.72	13	86.67
Ability to communicate Extension policies and procedures effectively	5.27	.70	13	86.67
Availability to Master Gardeners if they need assistance or advice	5.20	.68	13	86.67
Ability to conduct a sound program development and structuring process	5.20	.86	13	86.67
Ability to identify volunteer’s strengths and weaknesses and see where they would best function within the organization	5.20	.86	13	86.67
Commitment to gaining knowledge of subject matter	5.20	1.01	13	86.67
Constantly communicating your messages, not just to Master Gardeners and not just at meetings	5.13	.83	13	86.67
Ability to offer guidance to autonomous association, yet maintain direction within Texas Cooperative Extension parameters	5.00	1.25	13	86.67

* Scale ratings are as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree

Table 4.15: Statements in Round 3 Reaching Consensus with 80% and Fewer of the Panel (n=15) Giving Either a “5” or a “6” Rating of Agreement on a Scale of 1-6* made to the Question: What Competencies Do You Need to be an Efficient and Effective Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Time management skills	5.40	.83	12	80
Ability to develop the proper balance of ownership of the Master Gardener program between the volunteers and the Extension Agent	5.40	.99	12	80
Ability to delegate work	5.27	.96	12	80
Ability to say “No”	5.13	.74	12	80
Committee work	5.20	.77	12	80
Willingness to be present at a majority of MG-related events (training sessions, monthly meetings, major planning sessions, MG-sponsored educational events)	5.07	1.03	12	80
Strong consensus building skills	4.93	.59	12	80
Cautious understanding that decisions the coordinator makes become policy	4.93	.88	11	73.33
Computer skills (word processing, internet usage, etc...)	4.87	.74	10	66.67

* Scale ratings are as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree

The same three statements for research question one that did not achieve consensus in Round 2, also did not achieve consensus in Round 3 (Table 4.16). Distribution of ratings of level of agreement by the Delphi panel for each statement not receiving consensus regarding question one are found in Table 4.16.

Table 4.16: Statements in Round 3 Not Receiving Consensus and the Panel’s (n=15) Ratings of Agreement on a Scale of 1-6* made to the Question: What Competencies Do You Need to be an Efficient and Effective Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Technical competencies in the scientific principles of horticulture and environmental stewardship	4.73	1.03	9	60
Handwritten cards sent to Master Gardeners	4.40	.91	6	40
Background in volunteer coordination	4.13	.92	4	26.67

* Scale ratings are as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree

Research Question Two

The second question that the expert panel was asked to respond to was, “What are the perceived advantages of being a Master Gardener Coordinator?” Data analysis revealed that consensus was reached on 19 of the original 31 statements (Table 4.17) regarding perceived benefits of being a Master Gardener Coordinator.

Some of these statements reaching consensus referred to the benefit of increased Extension programming. The two statements that received 100% (n=15) agreement from the panel pertaining to this topic are: (Master Gardeners) “Increase Extension’s impact in community” (M=5.80, SD=.41), and (the Master Gardener Program) “Expands the reach of the Agent” (M=5.67, SD=.49) (Table 4.17). Other statements attaining consensus related to expanding Extension programming include: “Ability to address more issues” (M=5.40, SD=.63, n=14, 93.33%); “Ability to conduct large educational endeavors” (M=5.00, SD=1.25, n=13, 86.67%); “Additional help to address programming needs” (M=5.27, SD=.80, n=12, 80%); “Having volunteers who can help with the program area requirements” (M=4.80, SD= 1.32, n=12, 80%); and “Reaching audiences not typically addressed due to lack of time” (M=4.93, SD=.88, n=11, 73.33%) (Table 4.17).

Table 4.17: Statements in Round 3 Reaching Consensus and the Panel's (n=15) Ratings of Agreement on a Scale of 1-6* made to the Question: What are the Perceived Benefits of Being a Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Increase Extension's impact in community	5.80	.41	15	100
Expands the reach of the agent	5.67	.49	15	100
Satisfaction of seeing people accomplish good things for others	5.60	.51	15	100
Satisfaction of helping people grow in their knowledge	5.53	.52	15	100
Working with people who want to improve their community	5.40	.51	15	100
Ability to address more issues	5.40	.63	14	93.33
Excellent grass roots support base	5.40	.63	14	93.33
Ability to affect change where needed	5.33	.62	14	93.33
Develops leaders	5.47	.74	13	86.67
Work with highly motivated volunteers	5.33	.72	13	86.67
Positive advocates of extension willing to interpret benefits to decision makers	5.27	.70	13	86.67
Satisfaction of helping others	5.27	.70	13	86.67
Association with productive people from diverse backgrounds	5.07	.59	13	86.67
Ability to conduct large educational endeavors	5.00	1.25	13	86.67
Additional help to address programming needs	5.27	.80	12	80
Having volunteers who can help with the program area requirements	4.80	1.32	12	80
Reaching audiences not typically addressed due to lack of time	4.93	.88	11	73.33
Work with people who love horticulture	4.93	1.03	11	73.33
Increased contacts	4.80	1.01	10	66.67

* Scale ratings are as follows: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Somewhat Disagree*, 4 = *Somewhat Agree*, 5 = *Agree*, 6 = *Strongly Agree*

Twelve of the 31 statements regarding perceived benefits of being a Master Gardener Coordinator did not attain consensus in the third and final round of this Delphi study (Table 4.18).

Feather (1990) stated that Extension programs can increase in depth and continuity when volunteers relieve Extension professionals to teach other subject matter of a more advanced nature. The participants in this study did not validate this statement as the benefit statement, “Help with routine or repetitive educational aspects of job,” did not reach consensus as only 46.67% (n=7) of the panel gave this statement a rating of “agree” (5) or “strongly agree” (6) (M=4.40, SD=1.18) (Table 4:16).

Table 4.18: Statements in Round 3 Not Receiving Consensus and the Panel’s (n=15) Ratings of Agreement on a Scale of 1-6* made to the Question: What are the Perceived Benefits of Being a Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Increase accomplishments of agent	4.87	.99	9	60
Reaching audiences not typically addressed due to lack of resources	4.60	.99	8	53.33
Personal development	4.47	.74	7	46.67
Help with routine or repetitive educational aspects of job	4.40	1.18	7	46.67
Having a group that can raise funds to underwrite educational program expenses	4.00	1.31	6	40
Volunteer program looks good on reports and personal dossier	3.60	1.55	5	33.33
Reaching audiences not typically addressed due to lack of subject knowledge of agent	3.53	1.77	4	26.67
Prestige in the community for excellence in chosen specialty	3.53	1.06	2	13.33
Reduction of agent workload addressing horticulture education issues	2.73	1.67	2	13.33
Work with a select class of people	2.67	1.45	2	13.33
Everything Master Gardeners do is for the agent	2.20	.94	0	0
There are none	1.20	.77	0	0

* Scale ratings are as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree

Research Question Three

Delphi members were queried about the limiting factors or problems of being a Master Gardener Coordinator. Data analysis revealed that consensus was reached on two of the 22 statements (Table 4.19) regarding this topic. The specific drawbacks that attained consensus among the panel were: (the Master Gardener Program) “Takes a great deal of the Agent’s time” (M=5.27, SD=1.33, n=13, 86.67%) and “Increased workload” (M=5.13, SD=1.46, n=12, 80%) (Table 4.19).

Table 4.19: Statements in Round 3 Reaching Consensus and the Panel’s (n=15) Ratings of Agreement on a Scale of 1-6* made to the Question: What are the Limiting Factors (Problems) of Being a Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
Takes a great deal of the agent’s time	5.27	1.33	13	86.67
Increased workload	5.13	1.46	12	80

* Scale ratings are as follows: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Somewhat Disagree*, 4 = *Somewhat Agree*, 5 = *Agree*, 6 = *Strongly Agree*

Twenty of the statements associated with problems of being a Master Gardener Coordinator did not reach consensus because they had nine or fewer panelist (60% or less) give a rating of “agree” (5) or “strongly agree” (6) (Table 4.20).

Table 4.20: Statements in Round 3 Not Receiving Consensus and the Panel’s (n=15) Ratings of Agreement on a Scale of 1-6* made to the Question: What are the Limiting Factors (Problems) of Being a Master Gardener Coordinator?

Statement	Panel Mean Rating	SD	No. Rating 5 or 6	% Rating 5 or 6
The agent is ultimately responsible for the volunteers and the MG program	4.60	1.24	9	60
It is a never ending, year round process	4.60	1.45	9	60
Agent must handle issues and complaints	4.53	1.25	8	53.33
Finding the right balance of program responsibility between agent and volunteers	4.47	1.30	8	53.33
Potential negative experience for new employees not used to the hours or management skills required to juggle so many projects at the same time	4.20	1.86	7	46.67
Managing conflict	4.00	1.51	6	40
Finding the right balance of program ownership between agent and volunteers	3.93	1.49	6	40
Personality problems between members	4.20	1.57	5	33.33
Expectations from Extension	4.00	1.36	5	33.33
A strong service ethic (within the MG program) takes time to develop	3.67	1.54	4	26.67
Keeping volunteers in line with Texas Cooperative Extension’s mission	3.93	1.39	3	20
Keeping volunteers on task	3.73	1.33	3	20
Volunteers may not do what the agent desires	3.67	1.45	3	20
Hidden problems within the MG organization	3.60	1.50	3	20
Funds for projects, events and other activities	3.33	1.54	3	20
Having to address recurring problems through training and education	3.40	1.18	2	13.33
Trying on agent’s patience	3.33	1.23	2	13.33
There are none	1.87	1.60	1	6.67
Not knowing which schools are involved in Junior Master Gardeners (JMG)	2.73	1.10	0	0
Lack of technical knowledge in ornamental horticulture	2.33	1.05	0	0

* Scale ratings are as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree

CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This final chapter contains a summary of the research conducted in this dissertation. It concludes with implications and recommendations for Cooperative Extension Systems and Master Gardener Coordinators. Suggestions are given for further research.

Summary

The purpose of this study was to develop a list of best management competencies and successful practices for Texas Cooperative Extension Agents who are Master Gardener Coordinators. Furthermore, this study was conducted to gain insight into the perceived benefits as well as limiting factors (problems) of being a Master Gardener Coordinator. This was accomplished utilizing a Delphi technique and input from fifteen expert County Extension Agent Master Gardener Coordinators throughout the State of Texas.

Competencies Needed by Master Gardener Coordinators

The Delphi panel of expert Master Gardener Coordinators established consensus of agreement on 64 of the original 67 consolidated statements of competencies needed to be an efficient and effective Master Gardener Coordinator. This extensive lists points to the fact that experts in the field of Master Gardener management have found much to

agree about when it comes to needed skills and actions in conducting a Master Gardener program. Each of the 64 competencies that the expert Master Gardener Coordinators agreed were essential for effectively coordinating a group of Master Gardener volunteers are all competencies that coincide with the standard volunteer management models such as ISOTURE (Boyce, 1971), L-O-O-P (Penrod, 1991), or GEMS (Culp et al., 1998). Furthermore, many of the 64 competencies reaching consensus of agreement within this study have also been identified as essential competencies for managing volunteers in previous research studies.

In 2004, Boyd examined the concept competencies needed by Extension personnel in volunteer administration positions by conducting a study to determine specific “competencies that would be required by administrators of volunteers in the coming decade” (p.54). This study utilized a Delphi technique with experts consisting of administrators of volunteers, directors of regional volunteer centers, Extension volunteer development specialists, and university faculty members from across the nation to develop group consensus. Ultimately, 33 competency statements divided into five constructs were retained by the expert panel. The five constructs included organizational leadership, systems leadership, organizational culture, personal skills and management skills.

Comparing and contrasting the competency statements found in Boyd’s (2004) study with the competency statements achieving consensus related to Master Gardener Coordinators in this study is a useful tool for greater understanding in the area of Extension personnel interacting with and managing volunteers. A discussion examining

the findings of these two studies follows as the findings of this study are examined in the context of the five constructs developed by Boyd (2004).

Organizational Leadership

The findings in Boyd's (2004) study and the findings in this study in the area of organizational leadership share many similarities. The responses from Delphi panel in this study support the importance of articulating an organizational vision to stakeholders and then displaying a commitment to that vision. The ability to "see the big picture" and identify the individual steps to accomplish goals is a theme that both studies share.

A specific competency found in this research study that was interesting to note was the ability to articulate Extension's mission and goals to the Master Gardener volunteers. Boleman and Burkham (2005) point out that volunteers help Texas Extension: "reach more people; ensure that programs are relevant; deliver Extension education; and interpret the value of Extension to others." These are powerful functions within the Cooperative Extension system. It is imperative that the Master Gardener volunteers truly understand Extension's mission and where they fit into the public education schema.

Systems Leadership

Competencies related to achieving a proper balance of ownership and responsibility within the volunteer program were highlighted in both this study and Boyd's (2004) study. The expert panel in this study felt that enlisting the help of Master Gardeners and then giving them freedom to carry-out tasks – oftentimes in a manner that the County Extension Agent would not have personally completed them – is important. The overall volunteer management theme from this panel is one of avoiding micro-managing, yet being available to provide guidance, assure accuracy of information and compliance with Texas Cooperative Extension requirements.

Organizational Culture

Competencies listed under this construct relate to setting the organization's "tone" when conducting business and interacting with fellow volunteers as well as public clientele. In this context, participants in this study noted that it is important for a Master Gardener Coordinator to show volunteers, through words and actions, that they understand the strengths, weaknesses and needs of the Master Gardener organization, and that they are willing to work towards utilizing and/or improving those items.

The concept of guiding the Master Gardener volunteers, yet respecting them as individuals and as an autonomous association, is a concept from which multiple competency statements arose. Some of these competency statements reaching consensus included: "Knowing your volunteers and their life experiences and respecting them as professionals," "Trusting volunteers to complete tasks given to them," "Respect for the

time and contributions of your volunteers,” “Ability to offer guidance to autonomous association, yet maintain direction within Texas Cooperative Extension parameters,” and “Willingness to do the very things you ask of your volunteers.”

Personal Skills

Both Boyd’s (2004) study and the Delphi panel in this study matched up on various competencies related to personal skills. “People” skills and communication skills were emphasized in both studies. These studies indicate that the enjoyment of working alongside and partnering with people is fundamental to having a successful Master Gardener program.

It is interesting to note that in both studies, specific competencies that did not reach consensus of agreement were technical competencies in subject matter knowledge (i.e. horticulture and environmental stewardship) as well as the coordinator having a background in volunteer coordination. In essence, these studies imply that good “people” skills make up for limited subject matter knowledge or a lack of previous experience with volunteer coordination.

Management Skills

Seventeen competency statements related directly to management skills achieved consensus in this study. These competencies indicate the importance of a Master Gardener Coordinator possessing a set of skills that allow a volunteer group to function with order, clarity and with an understanding of procedural operations. It is within the

competencies found in the construct of “management skills” that the business side of the Master Gardener program is implemented. These business-type competencies tempered by the more emotional competencies found under the construct of “personal skills” allow a Master Gardener Coordinator to plan, implement and maintain a successful Master Gardener program.

Benefits of Being a Master Gardener Coordinator

Consensus of agreement was found within the participants in this study regarding the capacity for program area expansion and increased educational program delivery options. Such statements of benefits received through Master Gardener programs include: “Increase Extension’s impact in community,” “Ability to conduct large educational endeavors,” “Ability to address more issues,” “Additional help to address programming needs,” and “Increased contacts.”

The research data indicate that a substantial amount of benefit to a County Extension Agent, Master Gardener Coordinator comes in the form of personal encouragement and motivation given by the Master Gardener volunteers. Consensus of agreement was met for such benefit statements as: “Satisfaction of seeing people accomplish good things for others,” “Work with people who love horticulture,” “Work with highly motivated volunteers,” “Association with productive people from diverse backgrounds,” and “Working with people who want to improve their community.”

Marshall and Clark (2000) describe the current Cooperative Extension accountability situation well by stating:

“The new directive for Extension is to ‘make a difference.’ No longer can we just remain busy with an array of miscellaneous or ‘one-shot’ activities. We must apply resources to do whatever it takes to achieve visible differences in the lives of individual people and communities.”

Master Gardener volunteers have the potential to be an invaluable resource for truly “making a difference” on the local and Statewide level.

Limiting Factors (Problems) of Being a Master Gardener Coordinator

Two of the original 22 consolidated problem statements achieved consensus from the expert panel. The participants in this study identified numerous limiting factors to being a Master Gardener Coordinator; however, there was not much agreement about the specific problems. This is an indication that encountering problems within and because of a Master Gardener group is a common experience, but the actual problems themselves vary from program to program. Reasons for different sets of problems between Master Gardener groups would have to do with a variety of conditions, such as: rural versus urban counties, horticulture issues and opportunities in various locations, and the experience, personality and management skills of the Master Gardener Coordinator.

The expert panel came to an agreement about two limiting factors related to coordinating Master Gardeners. One of these items was that coordinating a Master Gardener program takes a great deal of time, and the other is that an increased workload for the County Extension Agent comes along with coordinating a Master Gardener Group.

An increased workload and time demands accompanying Master Gardener programs are issues that both County Extension Agents and Extension Administrators should be keenly aware of and understand. County Extension Agents should not begin a Master Gardener program in their county if their primary motivation is to reduce their workload. The data from this study indicates that there are many benefits to having a Master Gardener program; however, these benefits come at the high price of a significant time commitment and an increased workload for the County Extension Agent.

Implications for Texas Cooperative Extension and other
Cooperative Extension Systems

Texas Cooperative Extension's mission is "to provide quality, relevant outreach and continuing education programs and services to the people of Texas" ("Texas Cooperative Extension Agency Strategic Plan 2006-2010," 2006). Volunteerism has a role in this mission, and Texas Cooperative Extension gives support by stating that "managing volunteers is essential for the future growth and programmatic impact of Texas Cooperative Extension." This study dealt specifically with Master Gardener Coordinators; however, the findings have implications for coordinators of all Extension Master Volunteer programs within Texas Cooperative Extension. Most of the competencies needed, benefits derived and problems resulting from Master Gardener programs would also apply to any Master Volunteer program.

Competencies identified in this study as most important for the success of County Extension Agent Master Volunteer Coordinators should be incorporated into professional

development training and revising resource materials. Oftentimes within the Cooperative Extension System, the vast amount of professional development opportunities are directed toward increasing subject matter knowledge. While this is essential, the findings in this study suggest that increasing professional development opportunities related to gaining volunteer administration skill and “people” skills such as leadership, communication and conflict resolution skills would prove extremely beneficial for the Master Volunteer Coordinators and their various volunteer programs.

County Extension Agents that are Master Volunteer Coordinators can use the findings of this study to better themselves and become more effective volunteer coordinators. Self assessment, Extension Customer Satisfaction surveys and focus groups can be utilized by County Extension Agents to determine their level of attainment and frequency of use of the 64 competencies identified in this study as essential. Any competency found lacking could be studied, emphasized and practiced by the County Extension Agent.

New or young County Extension Agents that find themselves “inheriting” a Master Volunteer Program or debating whether or not they should initiate a Master Volunteer program within a county should be encouraged that the experts in this study placed a heavy emphasis on people skills, while not placing nearly as heavy an emphasis on the technical aspects of subject matter knowledge.

Texas Cooperative Extension administrators can glean valuable insights by studying the results of this research. The findings of this study should help administrators understand and be sensitive to the increased work load and time

commitments of County Extension Agents that are Master Volunteer Coordinators. The benefits of Master Volunteer programs come with significant increases in work and time demands on Master Volunteer Coordinators. Furthermore, the quality of a Master Volunteer program is in direct relationship to the willingness of the Master Volunteer Coordinator to commit the proper amount of time and effort to the volunteer program.

Administrators should focus on hiring Master Volunteer Coordinators with people skills rather than focusing on backgrounds in volunteer administration or relying on technical skills within the subject matter area. As Extension administrators analyze a County Extension Agent's situation to determine if it is the right time for him or her to begin a Master Volunteer program, an emphasis should be placed on verifying the people skills and organizational skills of the County Extension Agent.

Recommendations for Further Research

Further County Extension Agent Research

It would be beneficial to determine Texas Cooperative Extension Master Gardener Coordinators' perceptions of their level of attainment and frequency of use of the 64 competencies in this study receiving consensus of agreement. Findings from this research would help Texas Cooperative Extension administrators understand needed professional development opportunities and resources.

A new hypothesis that has developed for the researcher based on the findings of this study is that Horticulture County Extension Agents that are Master Gardener Coordinators may have various benefits, limiting factors and needed competencies than

Agriculture and Natural Resources County Extension Agents who are Master Gardener Coordinators. Research to investigate this further would be helpful to better understand the needs and incentives of both sets of County Extension Agents.

Master Gardener Volunteer Research

It would be interesting to go back to the Master Gardener groups that were represented in this study and survey the Master Gardeners themselves. The Master Gardener Coordinators from these counties were chosen because of their successful Master Gardener programs. Interviewing or surveying the Master Gardener volunteers would give a different angle on looking at successful programs. These volunteers could be queried about the competencies they believe a County Extension Agent should possess in order to be a successful Master Gardener Coordinator. It would be interesting also to compare research from the Master Gardener volunteers with the findings of this research project to determine if there is a difference between what the Delphi panel in this study said were the benefits and limiting factors of having a Master Gardener program are, and what the volunteers themselves would note are the benefits and limiting factors for Texas Cooperative Extension.

Conclusion

A Master Gardener program's success or failure is the result of the Master Gardener Coordinator responsible for that program. If Master Gardener Coordinators desire wisdom in the arena of Master Gardener management, it is imperative that they

understand the competencies needed to work effectively and efficiently as a Master Gardener Coordinator. This study utilized an expert panel of Master Gardener Coordinators to develop a list of best management competencies and successful practices for Texas Cooperative Extension Agents who are Master Gardener Coordinators. Furthermore, this study gained insight into the perceived benefits as well as limiting factors (problems) of being a Master Gardener Coordinator. These findings have positive implications for insight and education into a greater understanding of effective Master Gardener management.

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APPENDIX A

DELPHI PANEL INVITATION EMAIL

Dear (Participant Name),

Because of your contributions as an active and effective Master Gardener Coordinator, Texas Cooperative Extension's Statewide Master Gardener Coordinator, Dr. Doug Welsh, has nominated you as a Delphi panel member representing a broad frame of experts in Master Gardener management in Texas to identify best management practices for Master Gardener Coordinators. I hope you will accept this invitation to join 19 other Master Gardener Coordinators to help derive a consensus of best management practices.

The Delphi panel includes Master Gardener Coordinator experts from rural and urban counties, Master Gardener programs of all sizes, and Coordinators that are both CEA-Agriculture and CEA-Horticulture.

You are asked to engage in what will be three rounds of surveys, each requiring about an hour of critical thought and response time on your part. If you agree to serve, you may begin by completing the first round electronic instrument, which is attached to this email. You will have a seven-day window to reply. All responses identifying you as a participant will be kept confidential.

Attached is a planning schedule for the rounds. Round one will begin immediately, and the third round concludes in December. It is critical, however, that you participate in all three rounds. You may consider adding your participation in this study as an unplanned task to your Organizational Support plan in Extension's TExAS reporting system. Participants in this study will be included in a random drawing for one \$50 gift card to The Home Depot.

Thank you in advance for your participation and professional contribution to Texas Cooperative Extension, the Texas Master Gardener Program and this research study. I believe that this is an investment in our education agency, its employees and volunteers.

Sincerely,

Landry Lockett
CEA-Horticulture, Collin County
(972) 548-4232

APPENDIX B
EMAILED QUESTIONNAIRES

Landry Lockett
825 N. McDonald, Suite 150
McKinney, TX 75069

Memorandum

To: Extension Delphi Participant
From: Landry Lockett
Date: November 1, 2006
Subject: Round 1 Questionnaire

Thank you for accepting the role as a Delphi panel member in this research study.

Please answer the following three questions, taking as much space or paper you need to fully answer each question. Full sentences are not necessary. You may send your answers to me in an email, mail your answers to me using the address at the bottom of this page or FAX your answers to Landry at 972.548.5530. A FAX cover page is included if you choose this option. The questions are as follows:

1. What competencies do you need to be an efficient and effective Master Gardener Coordinator?
2. What are the perceived benefits of being a Master Gardener Coordinator?
3. What are the limiting factors (problems) of being a Master Gardener Coordinator?

May I please have your answers to these questions before the end of the day on November 6th? Your contribution to the panel is critical. Thank you in advance for sharing your expertise.

Please email your responses to Landry at llockett@ag.tamu.edu or mail your responses to me at:

Landry Lockett
825 N. McDonald, Suite 150
McKinney, TX 75069

Participation in this study is voluntary, and refusal to participate involves no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or loss of benefits. Dr. James H. Smith will answer any questions you have about the study. His phone number is (806) 742-2816. You may also contact Landry Lockett, who is responsible for carrying out the procedures for the study at (972) 548-4232. For questions about your rights as a subject or about injuries caused by this research, contact the Texas Tech University Institutional Review Board for the Protection of Human Subjects, Office of Research Services, Texas Tech University, Lubbock, Texas 79409. Or you can call (806) 742-3884.

To: Landry Lockett **From:**

FAX: 972.548.5530 **Pages:**

Phone: 972.548.4232 **Date:**

Re: Round 1 **CC:**

- Comments: Round 1 of the Delphi, Best Management Practices for Master Gardener Coordinators, is attached.
- Special Comments to Landry ~

Landry Lockett
825 N. McDonald, Suite 150
McKinney, TX 75069

Memorandum

To: (Expert MG Coordinator Delphi Panel Member)
From: Landry Lockett
Date: November 17, 2006
Subject: Round 2 Questionnaire

Thank you for accepting the role as a Delphi panel member and for providing your input into the benefits, drawbacks and competencies needed to be an effective Master Gardener coordinator.

In Part 1, I ask you to quantify your level of agreement with each of the following statements that have been dissected and/or converged from the original statements. Duplicate or similar statements are listed only once. I believe this will require less than 30 minutes of your time.

In Part 2, I ask you to tell me a little about yourself by completing a few descriptive questions.

May I please have your ratings and your answers to the descriptive questions by the end of the day on **November 29**? Your contribution to the panel is critical. Thank you in advance for sharing your expertise.

Please email your ratings to Landry at lllockett@ag.tamu.edu.

Delphi Panel – Round 2
November 17, 2006

Name:
Round 2

Part 1

The compilation of statements describing aspects of Master Gardener coordination is provided. Statements are divided into three sections based on the three questions asked in Round 1. Original statements have been dissected and/or converged with duplicate statements listed only once.

Save this document as one file named <<Round 2 – Your Name>> then typed directly into this document. Email the completed document to llockett@ag.tamu.edu. As an alternative, you may print the document, complete the two parts, and FAX the completed instrument to Landry at 972.548.5530. A FAX cover page is included if you choose this option.

Please read each statement and quantify your level of agreement with the statement. One (1) means **STRONGLY DISAGREE**; six (6) means **STRONGLY AGREE**.

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6
Statements from Question 1					
Competencies needed to be an efficient and effective Master Gardener (MG) Coordinator:					Response
1.	“People” skills				
2.	Management skills				
3.	Ability to understand the true source of conflict				
4.	Conflict resolution skills				
5.	Fairness with everyone				
6.	Patience				
7.	Constantly communicating your messages, not just to Master Gardeners and not just at meetings				
8.	Listening skills				
9.	Time management skills				
10.	Oral communication skills				
11.	Written communication skills				
12.	Computer Skills (word processing, Internet usage, etc...)				
13.	Ability to say “No”				
14.	Ability to communicate what the MG organization is doing and where it is going				
15.	Ability to articulate Extension’s mission and goals to the Master Gardeners				
16.	Ability to identify and communicate the organization’s strengths and weaknesses				

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6
Statements from Question 1					
Competencies needed to be an efficient and effective Master Gardener (MG) Coordinator:					Response
17.	Ability to identify and communicate the needs of the organization				
18.	Ability to communicate Extension policies and procedures effectively				
19.	Ability to communicate a shared vision				
20.	Ability to effectively enlist the assistance of your Master Gardeners				
21.	Expressing gratitude to the Master Gardeners often				
22.	Praising Master Gardeners to people outside of the organization				
23.	Handwritten cards sent to Master Gardeners				
24.	Crediting your program's successes on the hard work and determination of your volunteers				
25.	Knowing your volunteers and their life experiences and respecting them as professionals				
26.	Availability to Master Gardeners if they need assistance or advice.				
27.	Allowing tasks to be completed in ways that you would not have personally done them				
28.	Trusting volunteers to complete tasks given to them				
29.	Avoiding micro-managing the volunteers				
30.	Respect for the time and contributions of your volunteers.				
31.	Ability to conduct a sound program development and structuring process				
32.	Strong consensus building skills				
33.	Ability to offer guidance to autonomous association, yet maintain direction within Texas Cooperative Extension parameters				
34.	Goal Orientation				
35.	Willingness to take the time necessary to meet with Master Gardener program leaders to discuss objectives and answer questions				
36.	Finding ways to secure resources, training, etc.				
37.	Committee work				
38.	Ability to develop the proper balance of ownership of the Master Gardener program between the volunteers and the Extension Agent				
39.	Ability to give the volunteers the proper amount of responsibility within the organization				
40.	Technical competencies in the scientific principles of horticulture and environmental stewardship				
41.	Commitment to gaining knowledge of subject matter				
42.	Commitment to the mission of the group.				
43.	Ability to inspire your volunteers to rise to the challenge				
44.	Leading with a shared vision and shared purpose				
45.	Willingness to do the very things you ask of your volunteers				
46.	Letting the volunteers know you are "going to bat" for them				
47.	Realization as an agent, you don't and can't possibly know everything				

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6
Statements from Question 1					
Competencies needed to be an efficient and effective Master Gardener (MG) Coordinator:					Response
48.	Cautious understanding that decisions the coordinator makes become policy				
49.	Willingness to stand firm on your policies				
50.	Following through with what you say you will do				
51.	Expecting volunteers to follow through with what they say they will do				
52.	Background in volunteer coordination				
53.	Ability to delegate work				
54.	Ability to identify volunteer's strengths and weaknesses and see where they would best function within the organization				
55.	Ability to facilitate				
56.	Motivational skills				
57.	Willingness to let volunteers plan and implement programs, yet be involved enough to provide guidance, assure accuracy of information, and compliance with Texas Cooperative Extension requirements				
58.	Willingness to be present at a majority of MG-related events (training sessions, monthly meetings, major planning sessions, MG-sponsored educational events)				
59.	Patient steering of volunteers in the right direction				
60.	Personal Flexibility				
61.	Leadership skills				
62.	Ability to think big but start small by seeing the big picture while identifying the individual steps to accomplish your goals				
63.	Positive Attitude				
64.	Enjoy "working" with people				
65.	Interest in helping the public				
66.	Organizational skills				
67.	Plan and implement training for volunteers				
End of Question 1 Statements					

Strongly Disagree					Strongly Agree
1	2	3	4	5	6
Statements from Question 2					
	Perceived benefits of being a Master Gardener (MG) Coordinator:				Response
68.	Personal development				
69.	Satisfaction of helping others				
70.	Positive advocates of extension willing to interpret benefits to decision makers				
71.	Satisfaction of helping people grow in their knowledge				
72.	Satisfaction of seeing people accomplish good things for others				
73.	There are none				
74.	Work with people who love horticulture				
75.	Work with highly motivated volunteers				
76.	Reduction of agent workload addressing horticulture education issues				
77.	Prestige in the community for excellence in chosen specialty				
78.	Volunteer program looks good on reports and personal dossier				
79.	Increase accomplishments of agent				
80.	Increase Extension's impact in community				
81.	Ability to conduct large educational endeavors				
82.	Ability to affect change where needed				
83.	Ability to address more issues				
84.	Additional help to address programming needs				
85.	Everything Master Gardeners do is for the agent				
86.	Increased contacts				
87.	Develops leaders				
88.	Having volunteers who can help with program area requirements				
89.	Having a group that can raise funds to underwrite educational program expenses				
90.	Excellent grass roots support base				
91.	Expands the reach of the agent				
92.	Help with routine or repetitive educational aspects of job				
93.	Work with a select class of people				
94.	Association with productive people from diverse backgrounds				
95.	Working with people who want to improve their community				
96.	Reaching audiences not typically addressed due to lack to time				
97.	Reaching audiences not typically addressed due to lack of resources				
98.	Reaching audiences not typically addressed due to lack of subject knowledge of agent				
End of Question 2 Statements					

Strongly Disagree					Strongly Agree
1	2	3	4	5	6
Statements from Question 3					
	Limiting factors (problems) of being a Master Gardener (MG) Coordinator:				Response
99.	Trying on an agent's patience				
100.	Lack of technical knowledge in ornamental horticulture				
101.	Not knowing which schools are involved in Junior Master Gardeners (JMG)				
102.	Funds for projects, events and other activities				
103.	A strong service ethic (within the MG program) takes time to develop				
104.	Takes a great deal of the agent's time				
105.	Finding the right balance of program responsibility between agent and volunteers				
106.	Finding the right balance of program ownership between agent and volunteers				
107.	It is a never ending, year round process.				
108.	Increased workload				
109.	Potential negative experience for new employees not used to the hours or management skills required to juggle so many projects at the same time				
110.	There are none				
111.	Having to address recurring problems through training and education				
112.	Personality problems between members				
113.	The agent is ultimately responsible for the volunteers and the MG program				
114.	Agent must handle issues and complaints				
115.	Volunteers may not do what the agent desires				
116.	Keeping volunteers on task				
117.	Keeping volunteers in line with Texas Cooperative Extension's mission				
118.	Managing conflict				
119.	Hidden problems within the MG organization				
120.	Expectations from Extension				
End of Question 3 Statements					

Name:
Round 2

Part 2: Participant Descriptive Questions

1. Male/Female: _____
2. Years working for Texas Cooperative Extension: _____
3. Are you a CEA-AG and Natural Resources or CEA-Horticulture?
4. Population of county/counties that you serve: _____
5. Years as a Master Gardener Coordinator: _____
6. Number of members in your Master Gardener program (certified MGs and Interns): _____

To: Landry Lockett **From:**

FAX: 972.548.5530 **Pages:**

Phone: 972.548.4232 **Date:**

Re: Round 2 **CC:**

- Comments: Round 2 of the Delphi, Best Management Practices for Master Gardener Coordinators, is attached.
- Special Comments to Landry ~

Landry Lockett
825 N. McDonald, Suite 150
McKinney, TX 75069

Memorandum

To: (MG Delphi Panel Member)
From: Landry Lockett
Date: December 12, 2006
Subject: Round 3 Questionnaire

Thank you for contributing to this important study to determine the best management practices for Master Gardener coordinators. Of the original 120 statements rated in Round 2, eighty-seven statements were rated as agree/strongly agree by two-thirds or more of the panel members.

Congratulations on making it to the third and final round! For each of the 120 statements, please post your rating from **strongly disagree (1)** to **strongly agree (6)**. If you wish to provide a rationale for your rating of any item, please type the rationale directly into the text box.

Your sustained contribution to the panel is critical. Thank you in advance for sharing your expertise and investing your time in this process. May I please have your ratings by **December 20, before you leave for the Christmas holiday?** Your contribution to the panel is critical. Thank you in advance for sharing your expertise.

Please email your ratings to Landry at llockett@ag.tamu.edu.

Delphi Panel – Round 3
December 12, 2006

Name:
Round 3

Eighty-seven (87) statements from the three questions asked in Round 2 achieved a two-thirds consensus of “5/6” or “agree/strongly agree” by the panel of experts. These statements appear in bold type below. Please re-examine each statement and post your Round 3 value.

Save this document as one file named <<**Round 3 – Your Name**>> then typed directly into this document. Email the completed document to llockett@ag.tamu.edu. As an alternative, you may print the document, and FAX the completed instrument to Landry at 972.548.5530. A FAX cover page is included if you choose this option.

Please read each statement and quantify your level of agreement with the statement. One (1) means **STRONGLY DISAGREE**; six (6) means **STRONGLY AGREE**.

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree		
1	2	3	4	5	6		
Statements from Question 1				% Panel With 5/6 Rating	Panel Mean Response	Your R2 Response	Your R3 Response
Competencies needed to be an efficient and effective Master Gardener (MG) Coordinator:							
“People” skills				100	5.67		
Management skills				100	5.67		
Ability to understand the true source of conflict				80	5.13		
Conflict resolution skills				86.7	5.33		
Fairness with everyone				86.7	5.40		
Patience				93.3	5.60		
Constantly communicating your messages, not just to Master Gardeners and not just at meetings				80	5.00		
Listening skills				93.3	5.40		
Time management skills				80	5.33		
Oral communication skills				100	5.53		
Written communication skills				86.7	5.33		
Computer Skills (word processing, Internet usage, etc...)				66.7	4.93		
Ability to say “No”				80	5.27		
Ability to communicate what the MG organization is doing and where it is going				100	5.73		
Ability to articulate Extension’s mission and goals to the Master Gardeners				100	5.93		
Ability to identify and communicate the organization’s strengths and weaknesses				100	5.40		
Ability to identify and communicate the needs of the organization				93.3	5.47		
Ability to communicate Extension policies and procedures effectively				86.7	5.33		

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree		
1	2	3	4	5	6		
Statements from Question 1				% Panel With 5/6 Rating	Panel Mean Response	Your R2 Response	Your R3 Response
Competencies needed to be an efficient and effective Master Gardener (MG) Coordinator:							
Ability to communicate a shared vision				100	5.67		
Ability to effectively enlist the assistance of your Master Gardeners				100	5.67		
Expressing gratitude to the Master Gardeners often				100	5.73		
Praising Master Gardeners to people outside of the organization				100	5.73		
Handwritten cards sent to Master Gardeners				46.7	4.53		
Crediting your program's successes on the hard work and determination of your volunteers				93.3	5.73		
Knowing your volunteers and their life experiences and respecting them as professionals				86.7	5.47		
Availability to Master Gardeners if they need assistance or advice.				86.7	5.27		
Allowing tasks to be completed in ways that you would not have personally done them				93.3	5.33		
Trusting volunteers to complete tasks given to them				100	5.60		
Avoiding micro-managing the volunteers				100	5.47		
Respect for the time and contributions of your volunteers.				100	5.80		
Ability to conduct a sound program development and structuring process				80	5.13		
Strong consensus building skills				73.3	5.07		
Ability to offer guidance to autonomous association, yet maintain direction within Texas Cooperative Extension parameters				80	5.00		
Goal Orientation				86.7	5.33		
Willingness to take the time necessary to meet with Master Gardener program leaders to discuss objectives and answer questions				93.3	5.53		
Finding ways to secure resources, training, etc.				80	5.20		
Committee work				80	5.20		
Ability to develop the proper balance of ownership of the Master Gardener program between the volunteers and the Extension Agent				80	5.40		
Ability to give the volunteers the proper amount of responsibility within the organization				93.3	5.40		
Technical competencies in the scientific principles of horticulture and environmental stewardship				53.3	4.73		
Commitment to gaining knowledge of subject matter				86.7	5.20		
Commitment to the mission of the group.				100	5.53		
Ability to inspire your volunteers to rise to the challenge				100	5.67		
Leading with a shared vision and shared purpose				93.3	5.67		
Willingness to do the very things you ask of your volunteers				93.3	5.60		
Letting the volunteers know you are "going to bat" for them				100	5.60		

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree		
1	2	3	4	5	6		
Statements from Question 1				% Panel With 5/6 Rating	Panel Mean Response	Your R2 Response	Your R3 Response
Competencies needed to be an efficient and effective Master Gardener (MG) Coordinator:							
Realization as an agent, you don't and can't possibly know everything				93.3	5.40		
Cautious understanding that decisions the coordinator makes become policy				66.7	4.93		
Willingness to stand firm on your policies				86.7	5.33		
Following through with what you say you will do				100	5.73		
Expecting volunteers to follow through with what they say they will do				86.7	5.33		
Background in volunteer coordination				33.3	4.27		
Ability to delegate work				80	5.33		
Ability to identify volunteer's strengths and weaknesses and see where they would best function within the organization				85.7	5.21		
Ability to facilitate				100	5.53		
Motivational skills				93.3	5.60		
Willingness to let volunteers plan and implement programs, yet be involved enough to provide guidance, assure accuracy of information, and compliance with Texas Cooperative Extension requirements				100	5.67		
Willingness to be present at a majority of MG-related events (training sessions, monthly meetings, major planning sessions, MG-sponsored educational events)				80	5.13		
Patient steering of volunteers in the right direction				93.3	5.47		
Personal Flexibility				93.3	5.47		
Leadership skills				93.3	5.67		
Ability to think big but start small by seeing the big picture while identifying the individual steps to accomplish your goals				100	5.40		
Positive Attitude				100	5.80		
Enjoy "working" with people				100	5.80		
Interest in helping the public				93.3	5.67		
Organizational skills				86.7	5.33		
Plan and implement training for volunteers				100	5.53		
End of Question 1 Statements							

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree		
1	2	3	4	5	6		
Statements from Question 2				% Panel With 5/6 Rating	Panel Mean Response	Your R2 Response	Your R3 Response
Perceived benefits of being a Master Gardener (MG) Coordinator:							
Personal development				53.3	4.60		
Satisfaction of helping others				93.3	5.33		
Positive advocates of extension willing to interpret benefits to decision makers				86.7	5.33		
Satisfaction of helping people grow in their knowledge				93.3	5.47		
Satisfaction of seeing people accomplish good things for others				100	5.60		
There are none				0	1.27		
Work with people who love horticulture				73.3	4.93		
Work with highly motivated volunteers				86.7	5.33		
Reduction of agent workload addressing horticulture education issues				20	2.93		
Prestige in the community for excellence in chosen specialty				26.7	3.87		
Volunteer program looks good on reports and personal dossier				40	3.93		
Increase accomplishments of agent				66.7	5.00		
Increase Extension's impact in community				100	5.80		
Ability to conduct large educational endeavors				86.7	5.00		
Ability to affect change where needed				93.3	5.40		
Ability to address more issues				93.3	5.40		
Additional help to address programming needs				80	5.27		
Everything Master Gardeners do is for the agent				0	2.33		
Increased contacts				60	4.73		
Develops leaders				86.7	5.40		
Having volunteers who can help with program area requirements				86.7	4.87		
Having a group that can raise funds to underwrite educational program expenses				40	4.07		
Excellent grass roots support base				93.3	5.47		
Expands the reach of the agent				100	5.67		
Help with routine or repetitive educational aspects of job				46.7	4.47		
Work with a select class of people				13.3	2.80		
Association with productive people from diverse backgrounds				86.7	5.13		
Working with people who want to improve their community				100	5.47		
Reaching audiences not typically addressed due to lack to time				66.7	4.93		
Reaching audiences not typically addressed due to lack of resources				53.3	4.67		
Reaching audiences not typically addressed due to lack of subject knowledge of agent				33.3	3.67		
End of Question 2 Statements							

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree		
1	2	3	4	5	6		
Statements from Question 3				% Panel With 5/6 Rating	Panel Mean Response	Your R2 Response	Your R3 Response
Limiting factors (problems) of being a Master Gardener (MG) Coordinator:							
Trying on an agent's patience				20	3.40		
Lack of technical knowledge in ornamental horticulture				0	2.47		
Not knowing which schools are involved in Junior Master Gardeners (JMG)				13.3	3.00		
Funds for projects, events and other activities				26.7	3.33		
A strong service ethic (within the MG program) takes time to develop				40	3.87		
Takes a great deal of the agent's time				86.7	5.27		
Finding the right balance of program responsibility between agent and volunteers				60	4.53		
Finding the right balance of program ownership between agent and volunteers				46.7	4.00		
It is a never ending, year round process.				60	4.67		
Increased workload				80	5.07		
Potential negative experience for new employees not used to the hours or management skills required to juggle so many projects at the same time				53.3	4.27		
There are none				6.67	1.60		
Having to address recurring problems through training and education				20	3.47		
Personality problems between members				40	4.27		
The agent is ultimately responsible for the volunteers and the MG program				66.7	4.67		
Agent must handle issues and complaints				66.7	4.73		
Volunteers may not do what the agent desires				20	3.73		
Keeping volunteers on task				20	3.67		
Keeping volunteers in line with Texas Cooperative Extension's mission				26.7	3.87		
Managing conflict				46.7	4.00		
Hidden problems within the MG organization				40	4.00		
Expectations from Extension				40	4.07		
End of Question 3 Statements							

To: Landry Lockett **From:**

FAX: 972.548.5530 **Pages:**

Phone: 972.548.4232 **Date:**

Re: Round 3 **CC:**

- Comments: Round 3 of the Delphi, Best Management Practices for Master Gardener Coordinators, is attached.
- Special Comments to Landry ~

APPENDIX C

STATEMENTS DERIVED FROM EXPERT
PANEL REGARDING THE THREE
RESEARCH QUESTIONS

Consolidated competency statements given by the Delphi panel for research question one: “What competencies do you need to be an efficient and effective Master Gardener Coordinator?” Statements have been sorted into Boyd’s (2004) five competency constructs: Organizational Leadership, Systems Leadership, Organizational Culture, Personal Skills, and Management Skills.

Organizational Leadership

- Constantly communicating your messages, not just to Master Gardeners and not just at meetings
- Ability to communicate what the MG organization is doing and where it is going
- Ability to articulate Extension’s mission and goals to the Master Gardeners
- Ability to communicate a shared vision
- Praising Master Gardeners to people outside of the organization
- Ability to conduct a sound program development and structuring process
- Goal Orientation
- Commitment to the mission of the group.
- Leadership skills
- Ability to think big but start small by seeing the big picture while identifying the individual steps to accomplish your goals

Systems Leadership

- Ability to effectively enlist the assistance of your Master Gardeners
- Allowing tasks to be completed in ways that you would not have personally done them
- Avoiding micro-managing the volunteers
- Committee work
- Ability to develop the proper balance of ownership of the Master Gardener program between the volunteers and the Extension Agent
- Ability to give the volunteers the proper amount of responsibility within the organization
- Leading with a shared vision and shared purpose
- Willingness to let volunteers plan and implement programs, yet be involved enough to provide guidance, assure accuracy of information, and compliance with Texas Cooperative Extension requirements

Organizational Culture

- Ability to identify and communicate the organization's strengths and weaknesses
- Ability to identify and communicate the needs of the organization
- Ability to communicate Extension policies and procedures effectively
- Knowing your volunteers and their life experiences and respecting them as professionals
- Availability to Master Gardeners if they need assistance or advice.
- Trusting volunteers to complete tasks given to them
- Respect for the time and contributions of your volunteers.
- Ability to offer guidance to autonomous association, yet maintain direction within Texas Cooperative Extension parameters
- Willingness to take the time necessary to meet with Master Gardener program leaders to discuss objectives and answer questions
- Ability to inspire your volunteers to rise to the challenge
- Willingness to do the very things you ask of your volunteers
- Letting the volunteers know you are "going to bat" for them
- Expecting volunteers to follow through with what they say they will do
- Motivational skills
- Positive Attitude

Personal Skills

- “People” skills
- Ability to understand the true source of conflict
- Conflict resolution skills
- Fairness with everyone
- Patience
- Listening skills
- Oral communication skills
- Written communication skills
- Computer Skills (word processing, Internet usage, etc...)
- Ability to say “No”
- Technical competencies in the scientific principles of horticulture and environmental stewardship
- Commitment to gaining knowledge of subject matter
- Realization as an agent, you don’t and can’t possibly know everything
- Background in volunteer coordination
- Personal Flexibility
- Enjoy “working” with people
- Interest in helping the public

Management Skills

- Time management skills
- Expressing gratitude to the Master Gardeners often
- Handwritten cards sent to Master Gardeners
- Crediting your program's successes on the hard work and determination of your volunteers
- Management skills
- Strong consensus building skills
- Finding ways to secure resources, training, etc.
- Cautious understanding that decisions the coordinator makes become policy
- Willingness to stand firm on your policies
- Following through with what you say you will do
- Ability to delegate work
- Ability to identify volunteer's strengths and weaknesses and see where they would best function within the organization
- Ability to facilitate
- Willingness to be present at a majority of MG-related events (training sessions, monthly meetings, major planning sessions, MG-sponsored educational events)
- Patient steering of volunteers in the right direction
- Organizational skills
- Plan and implement training for volunteers

Statements from Question 2

Consolidated statements given by the Delphi panel for research question two (What are the perceived benefits of being a Master Gardener Coordinator?) are as follows:

- Personal development
- Satisfaction of helping others
- Positive advocates of extension willing to interpret benefits to decision makers
- Satisfaction of helping people grow in their knowledge
- Satisfaction of seeing people accomplish good things for others
- There are none
- Work with people who love horticulture
- Work with highly motivated volunteers
- Reduction of agent workload addressing horticulture education issues
- Prestige in the community for excellence in chosen specialty
- Volunteer program looks good on reports and personal dossier
- Increase accomplishments of agent
- Increase Extension's impact in community
- Ability to conduct large educational endeavors
- Ability to affect change where needed
- Ability to address more issues
- Additional help to address programming needs
- Everything Master Gardeners do is for the agent

- Increased contacts
- Develops leaders
- Having volunteers who can help with program area requirements
- Having a group that can raise funds to underwrite educational program expenses
- Excellent grass roots support base
- Expands the reach of the agent
- Help with routine or repetitive educational aspects of job
- Work with a select class of people
- Association with productive people from diverse backgrounds
- Working with people who want to improve their community
- Reaching audiences not typically addressed due to lack to time
- Reaching audiences not typically addressed due to lack of resources
- Reaching audiences not typically addressed due to lack of subject knowledge of agent

Statements from Question 3

Consolidated statements given by the Delphi panel for research question three (What are the limiting factors [problems] of being a Master Gardener Coordinator?) are as follows:

- Trying on an agent's patience
- Lack of technical knowledge in ornamental horticulture
- Not knowing which schools are involved in Junior Master Gardeners (JMG)
- Funds for projects, events and other activities
- A strong service ethic (within the MG program) takes time to develop
- Takes a great deal of the agent's time
- Finding the right balance of program responsibility between agent and volunteers
- Finding the right balance of program ownership between agent and volunteers
- It is a never ending, year round process.
- Increased workload
- Potential negative experience for new employees not used to the hours or management skills required to juggle so many projects at the same time
- There are none
- Having to address recurring problems through training and education
- Personality problems between members
- The agent is ultimately responsible for the volunteers and the MG program
- Agent must handle issues and complaints
- Volunteers may not do what the agent desires

- Keeping volunteers on task
- Keeping volunteers in line with Texas Cooperative Extension's mission
- Managing conflict
- Hidden problems within the MG organization
- Expectations from Extension

APPENDIX D

IRB ACCEPTANCE LETTER



November 6, 2006

James Smith
Ag Ed & Communications
Mail Stop: 2131

Regarding: 500661 Best Management Practices for Master Gardener Coordinators

Dr. James Smith:

The Texas Tech University Protection of Human Subjects Committee has approved your proposal referenced above. The approval is effective from November 3, 2006 through October 31, 2007. This expiration date must appear on all of your consent documents.

You will be reminded of the pending expiration approximately eight weeks prior to October 31, 2007 and asked to give updated information about the project. If you request an extension, the proposal on file and the information you provide will be routed for continuing review.

Sincerely,



Rosemary Cogan, Ph.D., ABPP
Protection of Human Subjects Committee

203 Holden Hall | Box 41035 | Lubbock, Texas 79409-1035 | T 806.742.3884 | F 806.742.3892

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