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4-H PATTERNS ON THE LAND INITIATIVE:
A CASE STUDY OF
ENVIRONMENTAL EDUCATION VOLUNTEERS IN MICHIGAN

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Rebecca Jess Lincoln

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4-H PATTERNS ON THE LAND INITIATIVE: A CASE STUDY OF ENVIRONMENTAL EDUCATION VOLUNTEERS IN MICHIGAN

By

Rebecca Jess Lincoln

A THESIS

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ABSTRACT

4-H PATTERNS ON THE LAND INITIATIVE: A CASE STUDY OF ENVIRONMENTAL EDUCATION VOLUNTEERS IN MICHIGAN

By

Rebecca Jess Lincoln

This study investigates volunteerism and community linkages in Environmental Education (EE) projects, using a qualitative evaluation of the 4-H Patterns on the Land Initiative (POTL). The study consists of personnel interviews with up to three volunteers, and one 4-H staff in each selected county. This study examines characteristics of local program staff and participants. This study concentrates on participants' perceptions of the flexibility of the program (4-H POTL Initiative), participants' expectations of the program, and types of participants who volunteered.

The desired outcome of the 4-H POTL Initiative is to have a self-sustaining volunteer base, and EE programs through community collaborations and coalitions.

In the results, counties that formed Service and Action Teams to facilitate projects through collaborations with other community groups (i.e. Boy Scouts), achieved a high degree of success in implementing their projects. In addition, the results demonstrated that people who participated in the projects were interested in the environment, had youth involvement, and were given the opportunity to volunteer (asked to volunteer). Evaluation of the 4-H POTL Initiative projects at the county level (grass roots) demonstrated that counties are very unique in their needs for EE projects. One major recommendation is to increase county-to-county communication between the Service and Action Teams. Yet county-to-county networking can help implement programs.

To my family for being who they are.
To my "cyber" friends for all their encouragement and support.
To Ron Filtz,"American Technical Advisor."

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INTRODUCTION

Background and Setting

Environmental Education (EE) programs are quite prevalent throughout Michigan and the United States. Two concerns in implementing EE programs are; recruiting and sustaining the volunteers associated with these programs, and developing the collaboration efforts among agencies to help implement local EE programs. In this case study, examining the 4-H Patterns on the Land Initiative (POTL), the researcher investigates EE volunteerism, along with interrelated collaboration efforts among agencies.

In 1991, the Michigan 4-H Natural Resources/Environmental Education (NREE) Program Committee, comprised of teens, volunteers, teachers, Extension staff, Kettunen Center staff, and environmental education specialists, began a Michigan Environmental Stewardship Needs Assessment (Dann and Jost, 1994). After careful study, and assessing county volunteers, the 4-H NREE Committee examined its findings with the help of staff from Michigan State University Extension (MSUE) and Michigan State University (MSU) Department of Fisheries and Wildlife (F & W).

In 1994, the MSUE and F & W program staff wrote a proposal entitled, 4-H Patterns on the Land Initiative: Youth Environmental Education Service and Action Program and the Development of the Russell G. Mawby Learning Center at Kettunen Center (Dann and Jost, 1994). In this proposal, staff sought funding to re-orient the 4-H environmental education system (projects, training and support, events) in order to develop stronger volunteerism and local youth environmental science and stewardship

education programs. Eventually, the 4-H Patterns on the Land Initiative (POTL), of the Michigan 4-H Natural Resources and Environmental Education (NREE) Program was made possible by a grant to the Michigan 4-H Foundation from the W.K. Kellogg Foundation. Later, grants from the Dow Chemical Company, ANR Pipeline, and Gerber Foundation were also given to the Michigan 4-H Foundation to continue the 4-H Patterns on the Land Initiative.

The goals for the 4-H Patterns on the Land Initiative presented in the proposal to the W.K. Kellogg Foundation are as follows:

- To develop local teams of youth and community leaders committed to environmental education and stewardship efforts that can be self supporting through their own community resource development networks.

- Guide youth and youth leaders in developing an environmental awareness, and a sound understanding of environmental science and ecology. As a result of their knowledge, youth and youth leaders will plan, implement, and evaluate community projects focusing on maintaining and improving the quality of life through restoration and conservation of the immediate environment.

- Utilize environmental education materials already available; evaluate, edit, and write 'teaching plans' for 4-H teen leaders which will outline environmental education and stewardship action projects (Dann and Jost 1994).

To reach the goals that the 4-H Patterns on the Land Initiative staff set forth, the Initiative worked first with pilot counties to help promote the program. In March of 1996, three pilot projects (in Mecosta/Osceola, St. Clair, and Wexford counties) were awarded $1,500 each in grant monies to be a part of this initiative. Also, three additional counties were awarded 'planning grants' of $500 each in 1996. Those counties were Midland, Oakland, and Saginaw. These three counties, along with Gladwin, Missaukee, and

Presque Isle applied for full 'pilot' status and became the second set of pilot counties with two-year grants of $1,500 per county in 1997. Because of the diversity of counties and EE within each county, pilot counties had the flexibility of choosing their own project(s) within the goals set forward by the 4-H POTL Initiative. Projects that were completed by each county include the following examples:

- Mecosta/Osceola County projects included: Adopt-A-Stream, Adopt-A-Drain, watershed awareness to the local community (through distributing flyers, using water study kits, and a group of youth building a watershed model and taking it to schools and community meetings), and creating a youth Envirothon team.
- Wexford County projects included: Adopt-A-Forest, creating awareness of the Clam River drainage (water quality), planting trees along the Clam River for bank stabilization, erosion prevention, and habitat restoration.
- St. Clair County projects included: cleaning up local drains and rivers for 'Make a Difference Day," holding an Earth-to-Kids Day Camp, and recruiting an intern to assist with summer programs.
- Gladwin County projects included: creating a youth Envirothon Team, connecting trails, building benches, putting together a map at a recreation area, and holding summer day camps on environmental issues for youth.
- Missaukee County projects included: Adopt-A-Forest, implementing Salmon in the Classroom with fifth graders, and establishing a community flower garden.
- Oakland County projects included: environmental education projects at the

Shiawassee Basin Preserve by planting trees, placing blue bird nest boxes, holding a fishing derby, and developing projects for teens to teach fifth graders at the Basin Preserve.

A key feature of the 4-H POTL Initiative was to empower local "Service and Action Teams"[1] of teens and adults, to work with youth to conduct ongoing, environmental science learning activities, and community service stewardship projects. Since this Initiative was new to Extension staff; each pilot county's Extension staff member received a worksheet, and support, on how to form a "Service and Action Team," for EE projects.

The desired implementation process for EE locally, involves the process of organizing Service and Action Teams that are made up of volunteers to develop "projects" and promote collaboration at the local level. The end result is education of community members and completion of projects, with the ultimate goal of sustaining and developing new EE projects. Another ultimate goal of this desired implementation process is to motivate more members of the community to volunteer for additional EE projects and EE efforts.

The desired implementation process (Figure 1) starts with the 4-H POTL Initiative, which includes the goal, clearly stated as "Stronger Programs" for local Environmental Education. Local County Agents, and other MSUE staff share the goal of Stronger Programs. The function of a Local County Agent is to form a Service and Action Team. In Step 1, the Service and Action Team promotes the goal of stronger local EE by developing projects.

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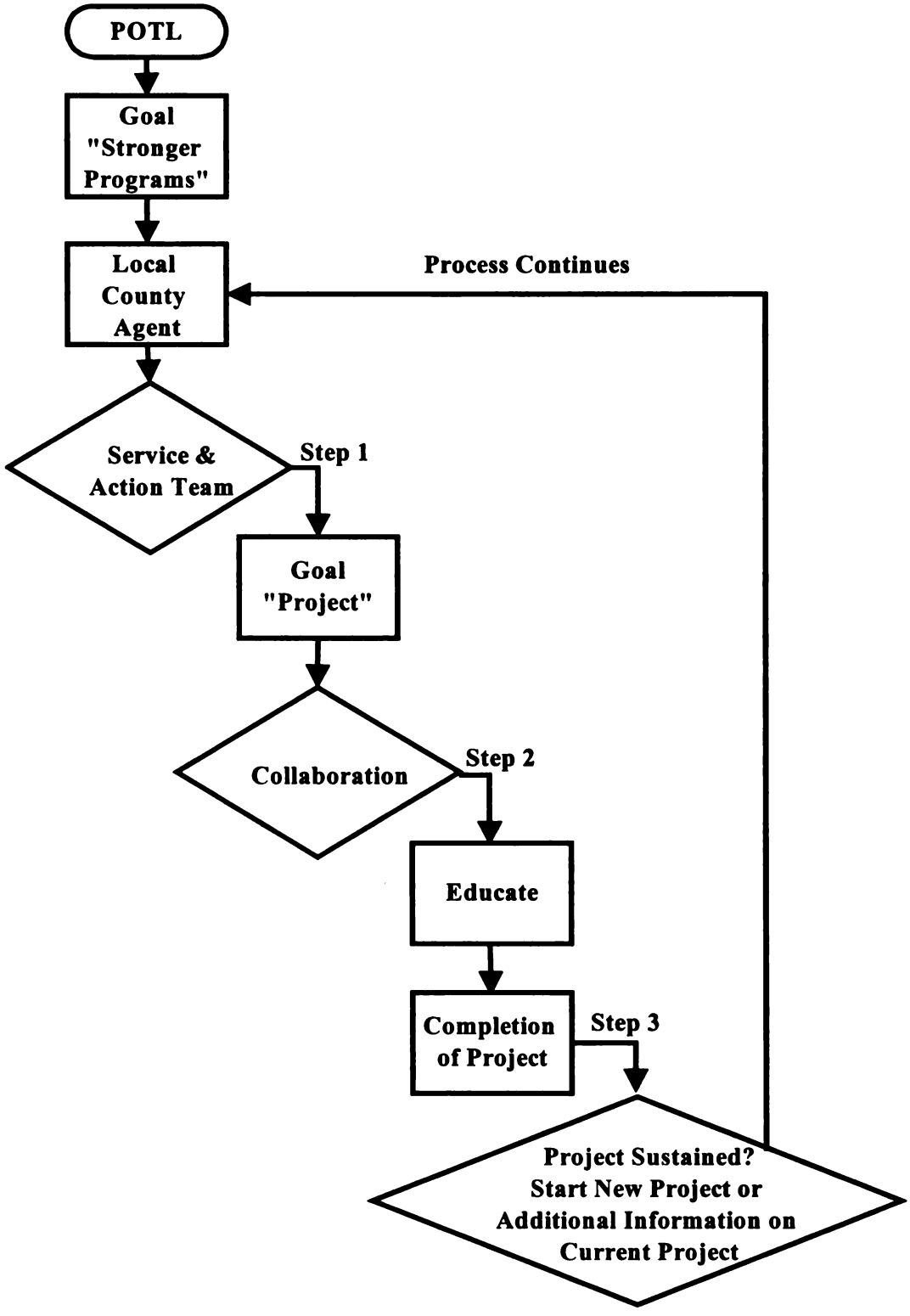
[1] Footnote: Service and Action Teams were composed of adult volunteers, youth leaders, resource people (professionals), community leaders, and science teachers.

Figure 1. Desired Implementation Process for Local EE Programs Using Service and Action Teams



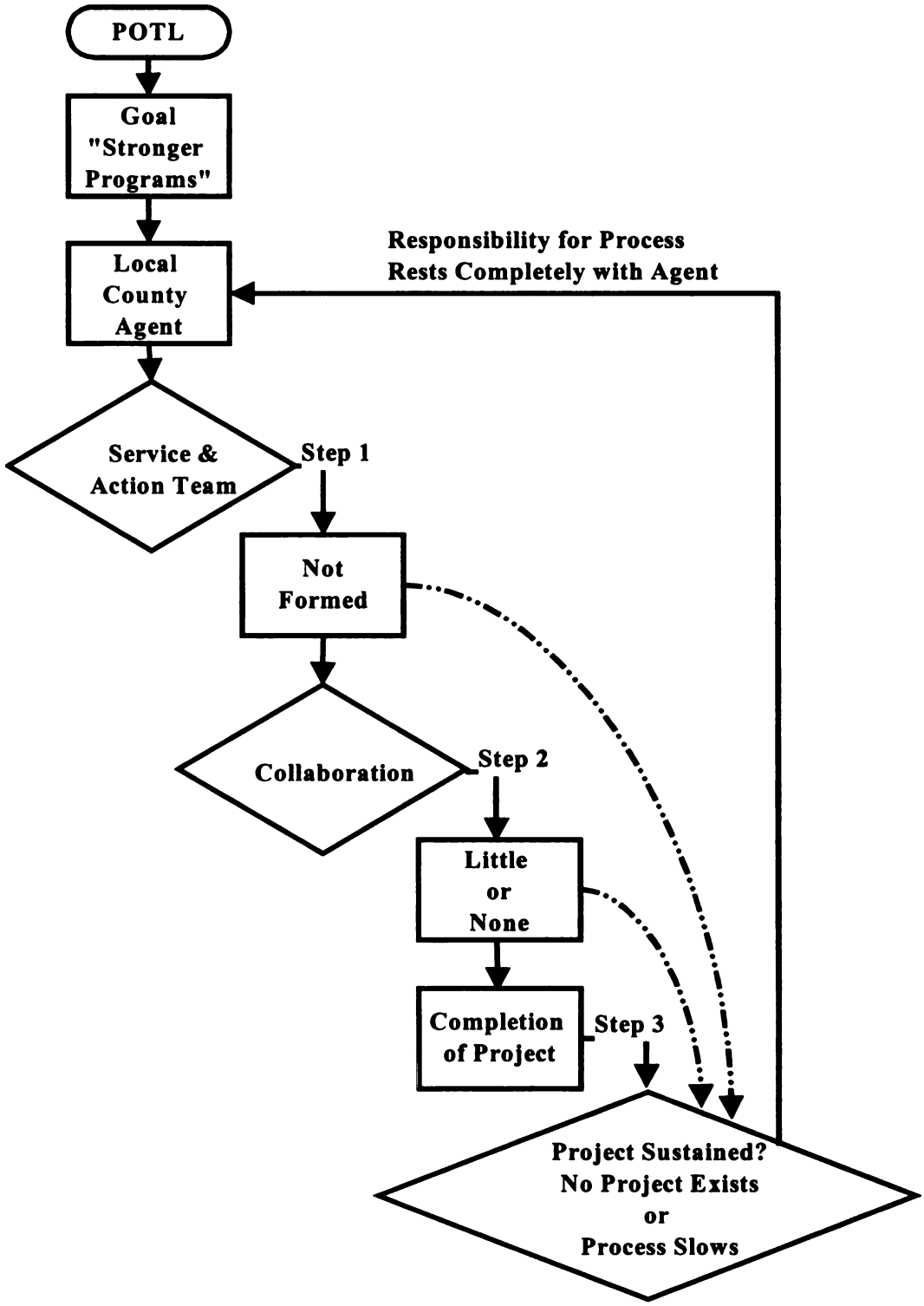
The projects and the Service and Action Team provide a focus for collaboration and communication among MSUE, local environmental agencies, and the community. In Step 2, the process of collaboration results in community education and project completion. Step 3, the end result is that through the Service and Action Team, projects are sustained, new projects are started, or additional information on current projects is disseminated. This encourages continued local EE activity, which promotes interest and motivates volunteers. Therefore, as a result, the EE process continues at the local level.

A less desired implementation process for the local EE relies heavily or solely on the Local County Agent (LCA) (Figure 2). The sole motivator for EE becomes the Local County Agent, instead of the Service and Action Team. If a Service and Action Team is not formed, then collaboration suffers or does not exist. At this point, it is difficult to implement projects that would be relevant to local environments and communities. This results in projects not being completed in a timely fashion, or no projects at all, and for an EE process that is not sustainable, or of interest to volunteers over a long period of time.

The less desired process for EE implementation starts similarly to the desired implementation process, with the 4-H POTL Initiative goal of "Stronger Programs" for local Environmental Education. At first, Local County Agents, and other MSUE staff share the goal of Stronger Programs. The function of a Local County Agent is to form a Service and Action Team. However, in the less desired process the Local County Agent, does not form Service and Action Teams (in step 1), thus resulting in little or no collaboration (step 2). With little or no collaboration, projects relevant to local environmental issues and communities are not as successful.[2] In Step 3, with projects

[2] Footnote: Successful is defined as accomplishing the goals of the POTL Initiative.

Figure 2. Less Desired Implementation Process for Local EE Programs Which Rely Heavily on LCA and Weaker or Non-Existent Service and Action Teams



that have little or no success, there is not a sustainable process for EE projects or long-term, community-based Environmental Education. Without sustainable projects, there is little or no EE activity, which then leads to decreased interest and motivation of volunteers. Therefore, the process does not continue at the local level, and all of the EE project implementation process rests with the Agent.

Little research has been conducted on grass-roots, locally-planned youth Environmental Education programs, such as those conducted for the 4-H POTL Initiative. The 4-H POTL Initiative made available the opportunity to study two concerns in implementing EE programs. These two concerns were recruitment and sustaining volunteers, and developing collaboration efforts among agencies.

Problem Statement

The 4-H Patterns on the Land Initiative has taken steps in trying to re-orient the EE system in order to develop stronger volunteerism, collaboration and local youth environmental science and stewardship education programs. This initiative provided an opportunity to evaluate the successes and challenges in implementing local EE projects.

How the projects are defined, and what projects result, are influenced by the local Extension organizations and a variety of community collaborators. In order to evaluate the performance of these groups working together, the EE-related expectations, attitudes, skills, knowledge, and aspirations of the participants were evaluated. Also evaluated were the types of individuals attracted to the 4-H POTL Initiative, at the local level, and the latitude they had to pursue different projects.

Purpose of Study

The focus of this case study is to describe various forms and formats the 4-H Patterns on the Land Initiative evolved into at the local level, and what roles professional staff and volunteers played in implementing youth environmental stewardship projects. Therefore, the concise descriptive information collected from this study will help to improve volunteer recruitment, strengthen community collaboration efforts for environmental education programs, and save time for county and state programs in the future.

Research Questions

During this study, the following research questions were posed:

1. What were the characteristics of local program staff and participants, including their attitudes, skills, knowledge, and aspirations before, during and after the pilot program?
2. When local groups were given flexibility, what shape did those local Environmental Education projects take?
3. What kinds of volunteers were attracted to the 4-H POTL Initiative at the local level?
4. What were the volunteers' expectations of the local projects for which they volunteered?

Definition of Major Terms

For the purpose of this study, the following terms are used:

Volunteer — A volunteer is any person who:

- Assists Extension or others through time, effort, funds, or materials.
- Is not paid by Extension
- Is of any age–adult or youth.
- Assists either for short (2 hours or less) or longer periods of time.

Environmental Education	One definition is provided by the Superordinate Goal of Environmental Education: ..."to aid citizens in becoming environmentally knowledgeable, and above all, skilled and dedicated citizens who are willing to work, individually and collectively, towards achieving and/or maintaining a dynamic equilibrium between quality of life and quality of the environment"(Hungerford and Volk, 1990).
Nonformal EE	The EE which occurs outside of the K-12 education system, typically conducted by volunteers.
Program	A broad based statewide EE effort aimed at achieving goals in NREE through the 4-H POTL Initiative.
Project	Local level objectives and actions in order to fulfill the 4-H POTL Initiative goals.
Skills	Skills needed by social groups and individuals to identify and plan solutions for environmental problems [and/or issues] (Hungerford and Volk, 1990).
Collaboration	An alliance of groups and individuals who band together to achieve objectives (goals) (Dluhy, 1990).

Assumptions

This study will be limited to the local volunteers and Extension staff associated with the 4-H NREE Program and local 4-H POTL Initiative projects. This group is appropriate for a case study with in-depth interviews, because an exhaustive literature review yielded few previous studies of volunteerism in 4-H Environmental Education Programs. It is assumed that this project will make a significant contribution to Environmental Education and other social issues. It might also be replicated easily in

similar situations with similar conditions across a wide spectrum of social issues.

Delimitations

The study was conducted via personal interviews with a limited, select sample of EE program participants. The study concentrated on obtaining information from Michigan volunteers associated with the 4-H POTL Initiative.

CHAPTER 2
LITERATURE REVIEW

Introduction

In the research literature pertinent to the study of local EE and communication, there are at least five elements that contribute to successful EE programs. The five elements are:

- Understanding Environmental Education and Barriers to Implementation
- Understanding Attitudes, Knowledge, and Aspirations of Program Staff
- Assessing Expectations of Volunteers
- Assessing Characteristics of Volunteers in Extension
- Organizing Flexible Programs.

Understanding Environmental Education and Barriers to Implementation

In reviewing literature on EE in relationship to this study, there is more research concerning formal EE than nonformal EE programs. Formal EE (in the classroom) is far more common and thus more frequently evaluated. In the study of,"*Environmental Education in the University of Illinois Cooperative Extension Service: An Educator Survey*" by (Smith-Sebasto, 1998) the research was initiated to assess educators' attitudes, competency, and performance in implementing EE in their various programs. In this study of nonformal EE, educators[3] agreed that it is important to integrate EE concepts and issues into their programs. However, educators were hesitant to infuse EE

[3] Footnote: Educators by Smith-Sebasto are defined as staff working for the University of Illinois Cooperative Extension Services (UICES).

programming because of lack of information, resources, time, and funds (Smith-Sebasto, 1998). Smith-Sebasto believes it is possible that these same barriers exist in nonformal environmental education.

In another study (Samuel 1993), which was conducted for formal EE, *"Impediments to EE Implementing EE,"* the findings seem similar to the nonformal EE Smith-Sebasto study. Samuel's study was undertaken to, "evaluate EE in a newly opened school in Ontario, Canada who's sole focus was intended to become an 'environmental immersion school,' as well as an outdoor education center" (pg. 26). Samuel examines problems in implementing formal EE. She identifies barriers such as teachers' attitudes, teachers' knowledge, school structure, materials, leadership, EE goals, philosophy, and involvement in the process.

Successful EE implementation requires continued preservice and inservice training (Samuel 1993, Smith-Sebasto 1998). Samuel further suggests that the process of implementing EE is the process of managing change.

Understanding Attitudes, Knowledge, and Aspirations of Program Staff

Within nonformal EE, it is very difficult to gauge the background knowledge, and attitudes of staff, and volunteers, until the program has started. Therefore, program coordinators may be taking a risk in recruiting volunteers, and staff, whose knowledge is unknown prior to the program.

Regarding general environmental knowledge, Bennett (1989) states, "One assumption is that knowledge is an essential prerequisite for responsible environmental behavior, therefore, a sound ecological understanding must be at the foundation of all decision making." He further goes on to say that, "...cognitive skills progress in difficulty

from knowledge to evaluation, and that each skill requires the use of skills below it' (Bennett 1989: pg. 12). For volunteers, and staff, to become involved with programs, program coordinators should conduct an interview to assess the participants' level of understanding and skill. Then, coordinators can focus training for volunteers and staff on specific skills needed for projects. Bennett suggests that coordinators conduct an evaluation of volunteers and staff after the project is completed, to gauge the effectiveness of training, as well as the interview process.

Knowing the level of skill the volunteer has can help eliminate any unforeseen problems in the implementation of the project. It is important also, to understand that Bennett (1989: pg. 16) believes, "Without question, the values we hold play a central role in environmental problems. In fact, we may define 'issues' as conflicts in values and we may be the cause of the program. Therefore, attitudinal characteristics of participants also will vary, and this has to be taken into consideration." Staff and volunteers may have an agenda (set of values) for participating in the program, or may have varied backgrounds with their related values.

Bennett's statement about values is backed up by the research of Covert (1982). Covert's findings showed that teacher's attitudes, actions, and communication behaviors, prior and post, to environmental education workshops did not change. However, after the workshop, he did find a significant change in the teachers' tendency to involve students outside of school programs. Implementations of EE programs are better understood from Covert's findings, particularly in regards to educators' workshops. As a result of the workshops, educators become motivated, and were more willing to involve students outside of school programs.

Assessing Expectations of Volunteers

Program coordinators need to know the expectations of volunteers, before they are involved in projects, to determine the work they would be best suited for and find most fulfilling. Rumsey's study, *"Motivational Factors of Older Adult Volunteers,"* examined volunteers that are age fifty-five plus (1999). Her findings show that the most frequent motivation for volunteering is to be with people; she also shows, there are seven expectations that motivate people to volunteer:

1. helping others,
2. doing something worthwhile,
3. learning new skills,
4. adhering to agency goals,
5. improving quality of life,
6. creating a better society, and
7. increasing personal knowledge.

Knowing which of these seven expectations is most important for specific volunteers, may help program coordinators recruit volunteers more easily, efficiently, and effectively.

Environmental attitudes and expectations start to form early in life through formal science learning (Tamir 1990-91). The study of *"Factors Associated with the Relationship between Formal, Informal, and Nonformal Science Learning"* by Tamir (1990-91), identified factors associated with nonformal science learning. However, he found high school students who liked to study science and those who aspired for a science career, were much more involved in a variety of out-of-school science-related

activities, and found school science more relevant to every-day life (pg. 41). As these students mature, their attitudes and expectations of science related activities remain largely unchanged, and hence, take priority over other activities, in making time to volunteer (i.e. for Environmental Education). Therefore, expectations are essential in motivating individuals to volunteer (Tamir 1990-91, Rumsey 1999).

Assessing Characteristics of Volunteers in Extension

The Cooperative Extension Service has a long history in the U.S., and Extension-associated volunteerism through 4-H programs is well established. Extension programs have usually placed volunteers in positions within which they feel comfortable. Most of these volunteers tend to have many voluntary positions, at the same time, and function quite well. Rowland (1990) indicates: "If you want a job done, give it to a busy person" (pg. 21). This is very typical of 4-H volunteers, in that they are involved in many different things; sometimes, however, this can be a problem when these volunteers become over-tapped.

Therefore, Extension program coordinators continually need to find new sources of volunteers. Research shows that older volunteers are more likely to volunteer if they have adequate motives, incentives, and feedback (Rouse and Clawson 1992). If programs can provide older volunteers with these 3 needs, program coordinators will be able to establish them as 'life-long' volunteers. Rouse and Clawson (1992) also suggest, "Today, older adults are actively sought to serve as volunteers. They have the essential time and skill" (pg. 10). Thus, time and skill are very important factors influencing the length, and level, of voluntary involvement of people today.

When attempting to recruit volunteers, additional characteristics such as gender,

education level, age, and marital status are necessary considerations (Rouse & Clawson 1992, Rowland 1990). The people who tend to volunteer are those people with higher education levels, white women who are married, older people with more time available, and teenagers if asked (Rowland 1990, Groff 1992). It is also important to make sure that volunteers feel they are needed, and believe they are involved in a worthwhile project (Balliette and Smith, 1990).

Organizing Flexible Programs

For simplicity, though there are significant differences between coalitions/collaborations, they will both be referred to as coalitions/collaborations at this point in the paper. Distinctions will be made later in this research. Currently, many local EE programs, such as the 4-H POTL Initiative, involve coalitions/collaborations working together. Coalitions/collaborations are conglomerates of organizations, groups, and professions (Dluhy, 1990). Coalitions/collaborations have advantages and disadvantages, which Extension staff, and Service and Action Team members have to consider, in relation to local EE projects. Coalitions/collaborations allow individual organizations to become involved in new, and broader issues, without the necessity of totally managing, or developing those issues by themselves. Thus, coalitions/collaborations give organizations greater power and influence over an issue, than any single organization would have, working alone. They enable the mobilization of greater numbers of resources, and they bring a wider variety of effective strategies to bear on an issue (Dluhy, 1990). The problems with coalitions/collaborations are that they may divert energy and resources from an organization, and that coalitions/collaborations may take positions contrary to an individual organization's interests or policies (Dluhy, 1990).

However, with increased participation in coalitions/collaborations, (as is the case with Service and Action Teams within the 4-H POTL Initiative) individual organizations can make substantial gains that are in their interest.

A wide variety of organizations, throughout the country, have extensively used the strategy of forming coalitions/collaborations to achieve their goals. In a study specific to Michigan, as reported by Keith in her 1993 study on,"*Building and Maintaining Community Coalitions On Behalf of Children, Youth and Families*" Extension in Michigan has also used coalitions/collaborations to achieve goals. Hence, Keith (1993) reported her findings regarding to local coalitions/collaborations in Michigan Extension as follows.

- One hundred and sixteen coalitions were identified in sixty-seven Michigan counties, focusing upon the needs of children, youth, and families.
- Forty-six counties reported information about coalitions in Michigan, and twenty-one reported no known coalitions within their counties.
- The two most commonly used types of coalitions were, agency and organization with a general focus identified, and coalitions whose main focus was prevention and intervention of child abuse and neglect.
- Eighty-seven percent of the coalitions were presently serving youth, (age 13-18) in their communities with some type of programming.
- Within their respective counties, nearly nine percent of the recognized coalitions worked within the Extension programs, focusing on the needs of children, youth and families.

Based on this research, coalitions/collaborations prove to be an effective means of organization. Therefore, local EE projects, such as those developed under the 4-H POTL

Initiative, can benefit from the formation of Extension-led coalitions/collaborations related to youth development and the environment.

Extension and local EE programs vary in their degrees of organization and flexibility, and community linkages, as reviewed by Hogue (1994). Hogue points out six levels of community linkages, each pertaining to specific purposes, structures, and process (Table 1).

Hogue defines coalitions and collaborations as being separate ideas (levels) in forming community linkages with organizations, agencies, and other committed social groups. The first level of community linkages is Isolation. Isolation does not lend itself to coalition or collaboration formation. The purpose of Isolation is for self-achievement. The structure of Isolation is working alone. The process of Isolation is that the person or organization maintains a competitive attitude and operates from a perfectionist perspective. Once a person realizes that the program will not function with Isolation, they tend to proceed to the second level of community linkage, which is Networking. The purpose of Networking is to be a clearinghouse of information and support for programs. The structure of Networking relies on roles loosely defined, and primarily community action among members. The process of Networking is low key leadership, minimal decision-making, little conflict, and informal communication. Once advancement beyond Networking occurs, the third level of community linkage is put into place. The third level of community linkage is Cooperation or Alliance. The purpose of Cooperation or Alliance is to match needs and provide coordination, limit duplication of services, and ensure tasks are done. The structure of Cooperation or Alliance is to form a central communication hub of people, form semi-formal links, define roles, and raise

money. The processes of Cooperation or Alliance promote complex decision making, formal communication, and having a facilitative leader. The fourth level of community linkages is Coordination or Partnership. The purpose of Coordination or Partnership is to share and merge resources to form something new. The structure of Coordination or Partnership is to have decision makers, define roles, formalize links, develop new resources, and form a joint budget. The process of Coordination or Partnership is to have central and subgroups make decisions, have frequent and clear communication, and have a leader that is focused on the issue. The fifth level of community linkages is Coalition. The purpose of a Coalition is to share ideas, be able to pull resources from existing systems, and develop commitment from members. The structure of a Coalition is to have all members involved in decision making, have roles and time defined for members, develop new resources, and have a joint budget. The process of a Coalition is shared leadership, decision making is formal, and communication is prioritized. The sixth, and final level of community linkages is Collaboration. The purpose of a Collaboration is to accomplish a shared vision, identify impact benchmarks, and build independent systems to address issues and opportunities. The structure of a Collaboration is to have consensus in shared decision making, work assignments are formed, and roles are formalized. The process of a Collaboration is to have a high level of productivity, high level of leadership, high level of trust, shared ideas and decisions, and highly developed communication.

Hogue's six levels of community linkages have advantages and disadvantages for different applications. In understanding community linkages, program coordinators can select the best level of linkage to apply to their programs or projects. Levels of

Table 1. Community Linkages--Choices and Decisions (Hogue, 1994)

Levels	Purpose	Structure	Process
Isolation	▪ To know for one's own purposes ▪ To further own goals ▪ To collect information for self	▪ Rarely working/thinking with others ▪ Works mostly alone	▪ Maintains competitive attitude ▪ Operates from perfectionist perspective
Networking	▪ Dialogue and common understanding ▪ Clearinghouse for information ▪ Create base of support	▪ Non-hierarchical ▪ Loose/flexible links ▪ Roles loosely defined ▪ Community action is primary link among members	▪ Low key leadership ▪ Minimal decision making ▪ Little conflict ▪ Informal communication
Cooperation or Alliance	▪ Match needs and provide coordination ▪ Limit duplication of services ▪ Ensure tasks are done	▪ Central body of people as communication hub ▪ Semi-formal links ▪ Roles somewhat defined ▪ Links are advisory ▪ Group leverages/raises money	▪ Facilitative leaders ▪ Complex decision making ▪ Some conflict ▪ Formal communications within the central group
Coordination or Partnership	▪ Share resources to address common issues ▪ Merge resource base to create something new	▪ Central body of people consists of decision makers ▪ Roles defined ▪ Links formalized ▪ Group develops new resources and joint budget	▪ Autonomous leadership but focus is on issue ▪ Group decision making in central and subgroups ▪ Communication is frequent and clear
Coalition	▪ Share ideas and be willing to pull resources from existing systems ▪ Develop commitment for a minimum of three years	▪ All members involved in decision making ▪ Roles and time defined ▪ Links formal with written agreement ▪ Group develops new resources and joint budget	▪ Shared leadership ▪ Decision making formal with all members ▪ Communication is common and prioritized
Collaboration	▪ Accomplish shared vision and impact benchmarks ▪ Build interdependent system to address issues and opportunities	▪ Consensus used in shared decision making ▪ Roles, time and evaluation formalized ▪ Links are formal and written in work assignments	▪ Leadership high, trust level high, productivity high ▪ Ideas and decisions equally shared ▪ Highly developed communication

community linkage, along with selection criteria for volunteers, help program staff organize their projects.

Traditionally, 4-H staff use well known models to select, recruit, and manage volunteers (Kwarteng, Smith, and Miller, 1988). Examples of traditional Extension models, are the ISOTURE Model and 4-H Volunteer Leadership Model (Figures 3 and 4).

The ISOTURE model starts with the process of identifying volunteers (Boyce 1971). Once volunteers are identified, Extension staff select, orient, train, utilize, recognize, and evaluate the volunteer in the specific program or project in which they worked (Figure 3).

Figure 3. The ISOTURE Volunteer Management Model Commonly Used in Extension Programs

TIME PROGRESSION ⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩	**ISOTURE** (Boyce, 1971)
	Identifying ↓
	Selecting (recruiting) ↓
	Orienting ↓
	Training ↓
	Utilizing ↓
	Recognizing ↓
	Evaluating

The 4-H Volunteer Leadership model, which is very similar to the ISOTURE model, progresses through the steps of recruiting, training, motivating, recognition, retention, and supervision of volunteers for programs and projects (Kwarteng, Smith & Miller, 1998). Some noticeable differences in the ISOTURE model and the 4-H Leadership model, are that the ISOTURE model starts by identification of volunteers, whereas, the 4-H Leadership model starts with recruiting. The ISOTURE model then progresses to recruiting, whereas, the 4-H Leadership model jumps right to training (skipping the volunteer orientation stage as in the ISOTURE model.) The 4-H Leadership model then motivates volunteers, whereas, the ISOTURE trains and then utilizes the volunteers. Volunteer recognition is found in both models, leaving evaluation as the last stage in only the ISOTURE model. The 4-H Leadership model has two more steps after the recognition stage, which are retention and supervision of volunteers.

Figure 4. The 4-H Volunteer Leadership Model Commonly Used in Extension Programs

TIME PROGRESSION ⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩	**4-H VOLUNTEER LEADERSHIP MODEL** (Kwarteng, Smith & Miller, 1988)
	Recruiting ↓
	Training ↓
	Motivators ↓
	Recognition ↓
	Retention ↓
	Supervision

Another model of volunteer organization is called GEMS, due to its 4 stages of Generating, Educating, Mobilizing, and Sustaining volunteers (Figure 5) (Culp, Deep, Castillo, and Wells, 1998). Generating volunteers includes six steps: conducting a needs assessment, developing volunteer job descriptions, identifying volunteers, then recruiting, screening, and selecting volunteers. The second main stage within GEMS is to 'educate' volunteers. The steps within volunteer education are to orient the volunteer, provide safety and legal protection and orientation, provide resource materials, and teach volunteers. The next stage is to 'mobilize' volunteers. This stage involves engaging, motivating and supervising volunteers. The last stage is to 'sustain' volunteerism, which includes evaluation, recognition, and perhaps redirecting, or disengaging volunteers.

Figure 5. The GEMS Volunteer Management Model that the 4-H POTL Initiative Followed

GEMS (Culp, Deppe, Castillo, and Wells,1998)			
TIME PROGRESSION ⇨⇨⇨⇨⇨⇨⇨⇨⇨⇨⇨⇨⇨			
Generate -needs assessment -job description -identify -recruit -screen -select	**Educate** -orient -safety & legal protection -resource materials -teach	**Mobilize** -engage -motivate -supervise	**Sustain** -evaluate -recognize -redirect -disengage

The ultimate goal of the 4-H POTL Initiative case study, is to study project organization and flexibility in order to enable 4-H staff to access volunteers from the

community, willing to conduct youth EE projects. By reviewing these models of Extension organizational structure, the researcher will be able to conduct an effective analysis of the interactions of the 4-H POTL Initiative participants and community collaborators. Describing these interactions is crucial in understanding the accomplishments and limitations of the 4-H POTL Initiative as an approach to carrying out local EE projects and sustaining volunteers.

CHAPTER 3
RESEARCH METHODS

Design

This study is qualitative in nature, and the specific methodology used is that of in-depth interviewing or "focused interviewing." The researcher quantified some interview data, in order to prepare a case study examining the volunteers and community collaborations of the 4-H POTL Initiative. The intent of quantifying data was not to describe relationships between variables, but to be able to understand particular organizational structures. As Becker (1958) said:

> "Sociologists usually use this method (qualitative) when they are especially interested in understanding a particular organization, or substantive problem, rather than demonstrating relations between abstractly defined variables." (pp. 652-653)

The study subjects and area for this research project consisted of individuals eighteen and older within six of the nine Michigan pilot counties involved with the 4-H Patterns on the Land Initiative. These included: St. Clair, Wexford, Mecosta/Osceola, Oakland, Gladwin, and Missaukee Counties. Saginaw, Midland, and Presque Isle Counties were not studied, since they lacked progress on recruiting partners and volunteers for Initiative activities. Staffing problems and other factors made it impossible to determine which subjects in those counties would be able to respond to interview questions.

Three pre-selected types of individuals, from each county, were selected by the local 4-H staff to participate in this study. The pre-selected interviewed individuals were: teachers, 4-H leaders, and resource people (professionals) serving on the county Service

and Action Teams participating in the 4-H POTL Initiative. The researcher also interviewed a 4-H staff member from each of the six counties participating in this study. For the purpose of this study, 4-H staff are individuals with the title of 4-H Agent, County Extension Director (CED), and 4-H Program Assistant.

The interviewees participated in in-depth interviews/focused interviews reviewed and approved, by the researcher's Master's thesis committee members. The case study examined characteristics of local program staff, participants' perceptions of the flexibility of the 4-H POTL Initiative, and participants' expectations. In The Focused Interview, Merton, Fiske, and Kendall 1990 wrote:

> "The primary objective of the focused interview is to elicit as complete a report as possible of what was involved in the experience of a particular situation" (pg.5).

Merton et al. (1990) also discuss criteria that are involved in conducting effective focused interviews:

1. Depth. "The interview should help interviewees to describe the affective, cognitive and evaluative meanings of the situation and the degree of their involvement in it."

2. Personal context. "The interview should bring out the attributes and prior experiences of the interviewees, which endow the situation with these distinctive meanings" (pp. 11-12).

By asking the focused interview questions, (as shown in Appendices F and G), the depth and personal context of interviewees were brought out in this case study.

Population

The population of this study is limited to Michigan, specifically the counties and the people associated with the 4-H Patterns on the Land Initiative between 1996 and

1999. Two groups of people were involved in this study: volunteers (4-H leaders, teachers, and resource people/professionals) participating in implementing the 4-H POTL Initiative within their county, and 4-H Extension Staff within the counties participating in the 4-H POTL Initiative. Thus this case study follows advice of Merton et al. (1990), who pointed out a key characteristic of the focused interview:

> "All of the persons interviewed are known to have been involved in a particular situation"(pg. 10).

The researcher selected the population of this study with these criteria in mind:

(1) a 4-H Staff member whose county participated with the 4-H POTL Initiative;

(2) a key teacher, 4-H leader, and professional serving on the county Service and Action Team identified by the 4-H Staff;

(3) the willingness of the selected participants to be involved with the case study.

Thus this non-random sample was limited to the six counties with the most direct experience with the 4-H POTL Initiative, and was limited to twenty-four persons, in order to get approximately equal numbers of respondents from the different types of individuals serving on the county Service and Action Team. The researcher chose the six county sample selected for the case study on the basis of the following criteria:

(1) the county participated in the 4-H POTL Initiative;

(2) the county formed a Service and Action Team;

(3) the county started environmental education projects;

(4) the county had filled out a bi-annual progress report.

Not all of the 4-H Staff in the six counties could supply a 4-H Leader, Teacher, and Resource Person/Professional. The actual number of participants interviewed was twenty-

three. All participants who were interviewed were given a small gift of candy, a pencil, a Michigan State University magnet, and a 4-H pin in appreciation for their time commitment.

The Focused Interview

The researcher developed a set of open-ended questions for in-depth interviews. These questions included demographic questions (age, sex, and education level). Interview questions were posed without leading the interviewee to any particular responses (Appendices F and G). Prior to the interview, the Focused Interview Questions were checked for content and validity, by several individuals with experience related to Case Studies, and the researcher's Master's thesis committee members; revisions were made as necessary.

The researcher (who also served as the pilot project evaluator for the 4-H POTL Initiative) contacted participating pilot counties 4-H staff to see if they would be willing to participate in this study. (This was not a blind call, since the 4-H staff knew the project researcher and had been working with her on various steps in the pilot program.)

After the 4-H Extension staff granted permission to include their county in the study, the researcher asked for the name of persons who were teachers, 4-H leaders, and resource people/professionals who served on the Service and Action Team. The initial phone contact script with 4-H staff can be found in Appendix A.

Next, the 4-H staff contacted those people whose names were compiled to let them know that the researcher would call to schedule a face-to-face interview. The contact script for potential interviewees can be found in Appendix B.

Once study participants agreed to an interview and specific dates were scheduled,

the 4-H staff were called to schedule an interview. Two of the county 4-H staff assisted by scheduling all of that county's interviews on the same day. The other four counties and participants were very flexible to grant interviews, scheduled only a few days apart, so travel time and costs were minimal.

Once dates and times were established for all study participants, the researcher mailed them a letter describing the study, assuring confidentiality of their responses, and describing the need for their participation (Appendix C). Also, the letter included the date of the one-hour interview appointment.

Upon arrival the researcher introduced herself, asked the interview participant to fill out the Background Data Sheet (Appendix E), gathered the Personal Interview Consent Form (Appendix D), asked permission to tape record the interview, and began the interview. The majority of the interviews lasted from twenty minutes to forty minutes, and all interviews were conducted between October 1998 and November 1998. As stated in the Personal Interview Consent Form, all information given was kept confidential, and responses were not associated with individuals' names or county names.

Data Analysis

The structured interviews were transcribed by Office Services at Michigan State University and stored electronically. After transcription, the researcher reviewed the tapes for accuracy, corrected transcription errors, and filled in where the transcriber was unclear about technical language. Following this process, the researcher went through the electronic files of the interviews, and replaced any names or county names with numbers to maintain confidentiality as stated within the Personal Interview Consent Form. As this process happened, the researcher converted the typed text into a format

that the computer software program, "Non-numerical Unstructured Data Indexing Searching and Theory-building (NUD*IST version 4.0)," required to assist with handling and analyzing the textual data (QSR Research PTY. LTD. 1997). Each participant's transcript was imported into the NUD*IST program, treating each participant as a "case" in preparation for coding.

Coding

Coding is used in the analysis of qualitative information (Miles and Huberman 1994: 56). *Codes* are tags or labels (referred to as a **node** in NUD*IST) for assigning units of meaning to the descriptive or inferential information compiled during a study. These pattern codes or variables provided the information needed to generate the findings discussed in the "Results" section. Codes usually are attached to qualitative data of varying size, such as words, phrases, sentences, or whole paragraphs, connected, or unconnected to a specific setting (Miles and Huberman 1994: 57). Miles and Huberman (pg. 57) state that,"codes are used to retrieve and organize the data. The organizing part will entail some system for categorizing the data, so the researcher can quickly find, pull out, and cluster the segments relating to a particular research question, hypothesis, construct, or theme. Clustering and display of condensed data then set the stage for drawing conclusions"(Miles and Huberman 1994: 57). During the coding process, when the researcher comes across an idea or phenomenon, a label is attached. When the idea or phenomenon reappears, the label is once again attached (Carter-Matthews, 1998).

NUD*IST software uses hard carriage returns to distinguish text units and thus, each hard carriage return is the smallest "codable" text unit (QSR Research Pty. Ltd. 1997). To analyze the 4-H POTL Initiative data, the participants' interviews were

separated by the interview question. Each response was marked with hard carriage returns. Thus, "Codable" text includes a simple word, or an entire sentence(s) or paragraph(s). A passage from one interview transcript offers an example of how NUD*IST interprets text units. Each passage separated by a space is interpreted by NUD*IST as a text unit. Therefore, the interview question is one codable unit (Line 17), the space in-between the interview question and response is another codable unit (Line 18), and the response to the question is one codable unit (Line 19):

> Interviewer:
>
> 'When given flexibility (no set agenda for this project), what form did it take, and who initiated it?'(LINE 17)
>
> (LINE 18)
>
> Respondent:
>
> *"Right, you gave us information on who might be a team member and what we needed to do as far as getting a grant. That was pretty much spelled out. And, of course, then the grant application and there were certain things that had to be included. During our first meeting we did identify more than one thing. But they were all interconnected and so I think I tried to mesh those in to one thing and then brought the team back together and said, how does this sound and what part can each of you play in this?" (LINE 19) (4-H Staff 5: lines 17-19)*

Code Retrieval

NUD*IST has the ability not only to retrieve all coded text quickly by browsing and selecting certain codes, but also to cross-reference codes, thus enabling the researcher to view and analyze co-occurrence and non-co-occurrence of codes between many documents or within one document. This data handling and management is possible because NUD*IST software uses an index system made up of "nodes" (nodes are the containers for coding and for ideas) to organize coded text unit (QSR Research Pty. Ltd.

1997). The researcher used the "node tree" in Table 2 to represent the organization of code ideas and phenomena in the focused interview questions asked.

Table 2. 4-H Patterns on the Land Initiative Response Coding

1. Characteristics of Interviewees

    1.1. Type of Interviewee
        1.1.1. 4-H Staff
        1.1.2. Resource People (Professional)
        1.1.3. Teacher
        1.1.4. 4-H Leader

    1.2. County of Interviewee
        1.2.1. County 1
        1.2.2. County 2
        1.2.3. County 3
        1.2.4. County 4
        1.2.5. County 5
        1.2.6. County 6

    1.3. Background: Attitudes and Knowledge
        1.3.1. Why did you participate?
        1.3.2. Pre-Program Attitudes and Knowledge
        1.3.3. Post-Program Attitudes and Knowledge

    1.4. Expectations of the Program?

    1.5. Flexibility of the Program
        1.5.1. What would you do differently now?
        1.5.2. Did you develop a stronger Program having a Service and Action Team?

    1.6. How do you go about Recruiting?

After coding two interviews, the researcher went back and added more nodes to capture all data. These additional nodes were placed under Free Nodes and coded, in no particular order, as shown in Table 3.

Table 3. Additional Codes for Responses about the 4-H POTL Initiative

Additional Codes
F1 Comments of importance
F2 What do you feel has been the most beneficial aspect of the 4-H POTL Initiative?
F3 What do you feel has been the most negative aspect of the 4-H POTL Initiative?
F4 Any text dealing with youth
F5 How much time did you spend on the 4-H POTL Initiative? Was it worth your time?

Compiling and Organizing Data Tables

The researcher examined coding by reviewing each node report, (example node 1.3.1 Why did you participate?) and highlighting text that was of interest in answering the questions posed for that node, and eliminating the non-relevant text. The researcher then started a list of key points, and categorized each point according to which study participant (4-H staff, teacher, professional or 4-H leader) had made the point. If there was a new key point, it was added to the list, and the researcher continued coding text. A key point list was created for each node.

CHAPTER 4
RESULTS

Description of Study Participants

This case study involved six Michigan Counties and twenty-three people within those six counties. Of those participants, seven were 4-H staff members, seven were resource people (professionals) from various backgrounds (resource management, environmental education, and community service), three were 4-H Leaders, and five were teachers involved in a county Service and Action Team, associated with the 4-H POTL Initiative.

The 4-H leader for County 1 did not keep the appointment for the interview; attempts were made to contact her and re-schedule, but she never called back. The 4-H staff in Counties 3 and 5 did not provide the name of any 4-H leaders for interviewing. The teachers in Counties 1 and 5 were also 4-H leaders. 4-H staff from County 5 also gave names of the County Extension Director and the 4-H Agent, so two MSU Extension personnel from this county participated in the interviews.

Of the interviewees, seventy-eight percent were married, nine percent were single, nine percent were divorced, and four percent were widowed (Table 4). Seventy-four percent were female, and twenty six percent were males. The average age of the participants was forty-five years old. Two participants did not complete the Background Data Sheet, so their ages were unknown. All of the interviewees were Caucasian.

Table 4. Demographic Characteristics of Participants (23 individuals)

Married	Single	Divorced	Widowed	Female	Male
78%	9%	9%	4%	74%	26%
High School	**Some College**	**Graduate School**			
13%	61%	26%			

Education level of the participants was varied; thirteen percent had only completed high school, sixty-one percent of the participants had completed some form of college level study at the undergraduate level, and another twenty six percent had completed graduate school.

Awareness of the 4-H POTL Initiative

A major focus for this study was to investigate the characteristics of local program staff, including their attitudes, skills, knowledge, and aspirations before, during and after the pilot program. To begin to address this question, the researcher asked how participants became aware of the 4-H Patterns on the Land Initiative conducted by the Michigan 4-H NREE Program.

Six of the seven 4-H staff and two teachers responded that they had read about it somewhere in a newsletter, in email, or in something that MSU Extension publishes to all counties or within the county. Three of the 4-H staff, also reported that Andrea Grix (the Pilot Site Project Assistant for the 4-H Patterns on the Land Initiative) contacted them and asked them to be a pilot county, in addition to their reading the request for pilot counties for the 4-H POTL Initiative. The 4-H Agent in one county wanted to become involved as a pilot county, so he contacted the 4-H Program Assistant in his county who

coordinates these type of programs so she could write for the grant.

One 4-H staff member and a resource person/professional said they became involved with the 4-H POTL Initiative because it was a part of their job. The 4-H staff member was hired to help initiate projects within three of the pilot counties. The professional was hired into her position, and her department had a working relationship established with the 4-H staff and the 4-H POTL Initiative.

Motivations of Participants

Participants had multiple reasons why they chose to take part in the pilot program. Eighty percent of participants, including 4-H staff, said they participated in the 4-H POTL Initiative because they wanted to help youth or be involved with youth in their counties, and to promote environmental education and stewardship (Table 5). Fifty percent of participants got involved because they have a personal interest in the environment (grew up with an appreciation for the outdoors), or are concerned about the environment (personally or with issues within the county). Thirty-three percent of participants have done, or presently conduct environmental education programs.

Table 5. Motivations of Participants

Motivation	Percent of participants
Wanted to help youth or be involved with youth in their counties	80%
Personal interest in the environment	50%
Have done or presently conduct environmental education programs	33%

Of the resource persons/professionals asked to be on the county Service and Action Teams, all but one are in a Natural Resource based career. Seventy percent of all participants have an interest, or appreciation for their environment, want to pass it along

to others, and are not afraid to try new things with Environmental Education programs. Half of all participants said they were active in 4-H as a youngster, or as a 4-H leader now.

Some other reasons why the participants became involved include:

- 4 participants-grew up on a farm;
- 3 participants-like volunteering;
- 3 participants-wanted to do something in the community;
- 2 participants-wanted to do something for "Make a Difference Day;"
- 1 participant-desired to fulfill an incoming VISTA worker's public service requirement;
- 1 participant-needed to fulfill science curriculum for home schooled youth.

For example, one volunteer noted:

> *"Well I have youth that I've tried to keep into 4-H things and I like volunteering, it is a lot easier than actually going back and getting a job" (4-H Leader 1[4]).*

Pre- and Post-Program Attitudes of Participants

Pre-program attitudes of 4-H staff were that their role was to write the grant, pull together a county Service and Action Team, and be the facilitator/support person for the group. Pre-program attitudes of volunteers (teachers, 4-H leaders, and resource persons/professionals) were stated in why they chose to participate. Examples of these attitudes included wanting to share their knowledge with youth, wanting to get something

[4] All 4-H Patterns on the Land Initiative participant quotes are referenced to individual participants in each of the twenty-three individual transcripts. Each transcript was labeled according to the participant's category (e.g., 4-H Staff, 4-H Leader, Teacher, and Resource Person/Professional).

started in their community, and a general "let's see what can happen" attitude.

Post-program attitudes of the 4-H staff were that facilitating and giving support to the group didn't happen to the degree they had hoped. Five of the 4-H staff had to call the meetings, run the county Service and Action Teams, and do the follow-ups and all the related paper work, which was much more work than they had anticipated. Five of the 4-H staff also said they didn't spend as much time as they would have liked on the projects and felt they could have spent more time, had duties allowed them, since most of them felt it was a worthwhile program. Four of the 4-H staff would have liked to see EE project material in place and thought that would have made participation easier for the pilot counties in the 4-H POTL Initiative. One quote that was offered by a 4-H staff member was this:

> *"Let other counties learn by our examples and have them talk to us before starting a project like this" (4-H Staff 3).*

Post-program attitudes of ten volunteers were that they felt their attitude towards Environmental Education programs stayed the same through the project. Five volunteers were concerned about how to keep the program going in their county after the pilot program timeline was completed. One teacher, in particular, stated what an "eye opener" it had been for herself, to see the pride and ownership the youth took in their project. The "eye opener" phenomenon was stated by three other participants in how they look at things after completing the projects in their counties. An example is from a 4-H Leader:

> *"I have a whole different outlook on the outdoors. It's kind of like, "Oh, I know what kind of tree that is" or "Do you know what that is over there?" or "Boy, we really need to have somebody come out here and clean that up" (4-H Leader 3).*

Two quotes offered by 4-H staff member were this:

> *"The project worked because it gave the youth something to do" (4-H Staff 4).*
>
> *"Most important thing to see is adults working side by side with youth and getting in there and doing it together" (4-H Staff 3).*

Participants' Perceptions of the Flexibility of the Program

Another major research question pertains to program flexibility. When local groups were given flexibility, what shape did those local Environmental Education programs take, and what kinds of volunteers were attracted?

The researcher asked 4-H staff about the forms and formats of local county programs under the 4-H POTL Initiative. The 4-H staff member initiated the process of applying for the 4-H POTL Initiative grant, therefore the researcher directed this question toward them.

Every 4-H staff member thought there was a great possibility with this program to get something started in his or her community. Two 4-H staff felt the flexibility was refreshing and opened a lot of doors and opportunities they wouldn't have had otherwise. Two 4-H staff members said the projects were pretty much spelled out in the grant and what they wrote, and that is the direction the projects went. Two other 4-H staff dove into meetings and had brainstorming sessions with volunteers to see where they wanted the program to go. One 4-H staff member said the 4-H POTL Initiative was confusing because she didn't know what direction her county's local project(s) would develop into, since there wasn't EE material; this 4-H staff member wanted a "cut and dry" program to follow. Another 4-H staff member felt that the "cut and dry" approach would have been

nice in the beginning, but in the end, was glad that those guidelines were not set up because she saw her projects evolve over time. That 4-H staff member also said this in her interview:

> *"It's probably a more significant piece of work that I did while in 4-H as an Agent (4-H Staff 4).*

It was very clear from one 4-H leader's perspective, that the 4-H staff in his/her county felt the program was confusing; this leader stated that, "there was lack of leadership and the county was unorganized" (4-H Leader/Teacher 4). Three 4-H staff members attributed their success to having the right volunteers at the right time. Fifty percent of the volunteers selected were asked by the 4-H staff to participate.

Participants' Insights on What They Would Do Differently

Fifty percent of all participants said they would have worked harder, or liked more time to work on the project, as shown in Table 6. Thirty percent of all participants wanted to have more involvement with the youth, taking project(s) into more schools, and connecting with more science teachers.

Table 6. Participants' Insights on What They Would Do Differently

Participant's Insights	Percent of participants
Would have worked harder or liked more time to work on the project	50%
More involvement with the youth	30%
Find a strong leader	25%
To bring either volunteers or themselves into the projects earlier	21%

Twenty-five percent of all participants would have liked to find a strong leader to lead the group. Twenty-one percent of all participants said they would have liked to bring either volunteers or themselves into the projects earlier. Other examples of insights offered by

4-H staff were these: 4-H staff .....

- would have interviewed the volunteers to find out what their motivations were for volunteering, and talked about commitment as a volunteers (4-H Staff 1);

- would have liked to approach a committee in her county more, and had more personal contact with volunteers (4-H Staff 2);

- would have liked to have a better target, or outline of what they were going to accomplish (4-H Staff 4 and Resource Person/Professional 5);

- would have liked to advertise more in newsletters to attract volunteers (4-H Staff 5);

- would have liked to do a survey at the beginning of the project, to see what community feelings were (4-H Staff 7).

Professionals' examples of what they would have done differently, included that they.....

- would have liked to do more follow up work on the volunteers who were involved and see if they were doing what they said they were following their objectives (Resource Person/Professional 2);

- would have liked to have the history written for the project as a guide (Resource Person/Professional 3);

- would have liked to ask what the mission was (what they were trying to accomplish) so she would have a better understanding of what was going on (Resource Person/Professional 4).

Participants' Perceptions of a Strong Service and Action Team

Five of the 4-H staff said that they have developed a stronger program due to forming a Service and Action Team. The other two 4-H staff, both from the same county, had a Service and Action Team going, but couldn't hold it together or get more than 4 people interested, so they were very frustrated, but they did accomplish projects.

In general, 4-H staff reported that the Service and Action Team helped determine what they were going to do, by setting up an advisory group to help bring in people. The Service and Action Team allowed people to have real visions, and it affirmed the things that were written within their grant applications that they planned to accomplish. As said by 4-H staff:

> *"If we said we're going to do this, we have to do this. So then, the volunteers were able to see the importance of doing these thing. When they saw the result of their efforts, that people were actually coming to these programs, youth were actually learning things, and this made them really aware of the importance of doing environmental programs too" (4-H Staff 1).*

Thus, it was really the volunteers who shaped the program, in the decisions they made, and in what their motives or ideas were for these projects.

Participants' Expectations of the Program

Another research question pertains to volunteers' expectations of the program. What were the volunteers' expectations of the program, and how did these encourage or discourage participation with training, support, and projects within the pilot counties?

Two-thirds of professionals and teachers tended not to have many expectations for their environmental education projects. Reasons ranged from not knowing what they were getting into, to not having enough time to plan. Again, since the professionals and teachers did not have expectations, this meant that after the projects were over, they felt positively surprised at the accomplishments the youth achieved.

4-H leaders and 4-H staff on the other hand, felt disappointed when a project didn't work, but, the key was that they didn't give up and tried it again in a different way. A good example of a 4-H leaders' perspective on expectations was this:

> *"I heard, down in County X, it sounds like they really took off, and they've had a lot of youth involvement down there, and I kind of wish we would have been able to do something along that line" (4-H Leader 1).*

A quote from County X's 4-H Leader:

> *"I can look at the youth that I was directly involved in, and say they have developed public speaking skills, they have learned how to develop curriculum, that would be appropriate for the ages that they have to go out and give presentations to. My expectations, the youth have surpassed; they've just been tremendous" (4-H Leader 3).*

Forty-three percent of all participants said their expectations were met, twenty-one percent said their expectations were somewhat met, and one 4-H staff member said his/her expectations were not met at all. Examples of expectations that were met were:

- the youth learned to be better stewards of their environment;
- networking within the county took place;
- local programs were established;
- a county was impacted by the project;
- the project was introduced at a good time where a leader/teacher was free to help (4-H Leader/Teacher 4).

Examples of expectations that were met, but participants wanted to see more of were:

- participants wanted more teachers involved; and
- participants wanted more impact on the community.

Eighty percent of the resource persons/professionals and teachers said they were waiting for a phone call to do the project again next year.

Participants' Perceptions of Time Commitment for the Program

Of the three 4-H staff members who responded to a time commitment question, one 4-H staff reported she spent over fifty percent of her work time on the 4-H POTL Initiative for over six months (Table 7). Another 4-H staff reported that he spent fifteen to twenty percent of his work time on the 4-H POTL Initiative, and the third reported she spent two or three weeks of total time. Comments were also made by many 4-H staff that the time they spent wasn't enough, and that it should have been more.

Of the three 4-H leaders who responded to the time commitment question, one reported she spent approximately twenty hours, another reported approximately ten hours, and the third reported a substantial amount of time (fifty percent of her day) during the pilot project from 1996 to 1998.

Of the six professionals who responded to the time commitment question, one reported thirty hours spent, another reported an hour a week for the length of the project, another reported sixty to eighty hours within the two month period she worked on the 4-H POTL Initiative, and three of the professionals reported twenty percent of their work day was spent on the 4-H POTL Initiative.

Of the two teachers who responded to the time commitment question, one reported approximately forty hours spent, and the second reported a significant time commitment from January to May. Every participant who reported his or her time commitment said the Initiative was definitely worth his or her time.

Participants' Positive/Negative Perceptions of the Program

One positive perception about the 4-H POTL Initiative was that it really touched youth and taught them something that they weren't aware of before participating. Another positive perception was that the participants really felt they made a difference, and the awareness level of the environment increased within their community because of this program. Two participants reported that the Initiative gave them a chance to develop, and work, with new programs that they might not have otherwise, and two other participants said they enjoyed seeing it as a hands-on learning experience. One 4-H staff member also went on to report that the school was very supportive, and that the Initiative showed the community that 4-H Youth programs were involved in community service programs.

Table 7. Participants' Time Commitment for the 4-H POTL Initiative

Participants who reported time commitment spent on the 4-H POTL Initiative	Total percent of time
4-H Staff	
-one 4-H staff	50%
-second 4-H staff	15-20%
-third 4-H staff	15-20%
Leader	
-one leader	1%
-second leader	1%
-third leader	50%
Professional	
-one professional	1%
-second professional	1%
-third professional	25%
-fourth, fifth and sixth professional each	20%
Teacher	
-one teacher	25%
-second teacher	25-75%

One negative perception for the 4-H POTL Initiative was that four participants indicated a lack of commitment from individuals who said they could participate, but they really couldn't, or they didn't show up and fulfill a responsibility. Two participants reported that the Initiative took away from other things they should have been doing. Two 4-H staff reported a negative perception was the relatively high amount of funding the Initiative took to kept the project(s) running. A 4-H staff and teacher said they would have liked to accomplish more if there had been more time. Two professionals reported that there was lack of time. A professional and two teachers couldn't think of anything that wasn't beneficial to the program. A 4-H leader and a teacher reported that the youth involved didn't get the recognition they deserved. More examples of perceptions of individuals include the following:

- one project (day camp) that a local county developed for youth, didn't happen because lack of participation (4-H Staff);
- we couldn't keep a Service and Action Team going (4-H Staff);
- we had equipment stolen (Resource Person/Professional);
- there was a lack of communication (Resource Person/Professional);
- we couldn't get the youth to the site to work on the project (Teacher);
- there was an odor in the classroom from the project (Teacher).

Participants' Perceptions of the Youth Involved

Six participants reported that the youth learned process skills to develop and carry out a plan or went through a process involved with their project. A quote from a teacher,

doing the Salmon in the Classroom project, was as follows:

> *"At first they viewed it like watching television. The students said, "Like wow that's cool. Okay, what else is there." Then pretty soon the students realized the fish are here to stay. Then the students noticed growth, differences in the sizes, that some were growing so rapidly, others were not, and the students would take a real personal interest. The students observed, "Oh the little one is hiding." The students really would vie for a position to be able to be the feeder, and the caretaker, and kept a constant eye on the tank" (Teacher4).*

Other participants reported shy youth, which would not normally give speeches, now were advocates of their local county projects doing public speaking. Presentations were given in Lansing in front of the state Senate, and a youth attended the National Volunteer Leader Forum in Washington, D.C., and gave a testimonial. Other participants reported that the Initiative gave youth a sense of responsibility and made them feel that they could do something in their community regarding the environment. One professional reported that he received phone calls from teachers who wanted to be involved with projects. These teachers had heard about these projects from the youth who were participants.

Staff Members' and Others' Perceptions of Volunteers

All 4-H staff reported that newsletters were where they placed information to obtain volunteers. Other means for obtaining volunteers were articles, word of mouth, schools, networking, partnering, and personal invitations by the 4-H staff. (Each of these responses were given by two to three 4-H staff.) Other sources for volunteers reported by 4-H staff were:

- they came to me to volunteer;
- departments that are interested in "Making a Difference Day;"

- former 4-H members;
- because of the status in the county (4-H has been there a long time, in the county, with a good reputation);
- surveys, flyers, and inviting yourself to meetings.

A 4-H staff member who summed up the process of obtaining volunteers said:

> *"You have to have recruitment of volunteers on your mind all the time, wherever you go, whoever you talk to" (4-H Staff 6).*

All participants said that the best way to retain a volunteer was because their children are involved and they want to do things with them, and the second point most frequently mentioned by participants was making the volunteer feel good about themselves, and giving them rewards they deserve. The third strategy most frequently mentioned was to have someone in an advisory position who can go out and recruit the volunteers, and can spend the time to keep them interested. Other reports by individual participants about ways to retain volunteers were to find their motivation, make personal phone calls, have a contract or year-long commitment to the program, have their friends involved, and have experience with the topic and with organization of the project.

Four participants' responses on motivational needs said the local project(s) fulfills a personal need. Two professionals feel that if they can teach youth not to litter, that is half the battle with their everyday job. Other motivational reasons are feeling comfortable with the subject matter, feeling they can contribute something (and see the rewards), having the time to volunteer, and liking to volunteer. Lack of motivation stems from lack of time, unfamiliarity with the subject matter, and that they haven't done this kind of project before. Therefore, it isn't surprising to see that the volunteers whose

attitudes and knowledge are positive about the environment, are the ones to have been chosen by the 4-H staff and who were willing to be volunteers. A very important characteristic not noted above, is that all of these people, even the 4-H staff, tend to volunteer for several different programs and projects throughout their county.

Patterns of Communication within Pilot Counties

The study results described in the previous section can be analyzed by looking for patterns of communications within each county. This analysis of counties' communication patterns makes it more clear why certain responses were reported among some counties, and not in others.

Even though County 1's 4-H leader did not show up for the interview, the researcher knows from working on the project that the 4-H leader is a home school mother and has used the 4-H POTL Initiative to help fulfill science curriculum requirements for her daughter. County 6's 4-H leader is also a home school mother and used the Initiative for the same purpose. It was evident that these two counties were similar in what type of projects evolved from these leaders' involvement. Each county developed a project(s) and the youth took them into local classrooms and presented the material(s). The attitudes of 4-H staff in these two counties seemed to be similar in forming a Service and Action Team, brainstorming ideas, and letting things develop as they progressed.

In County 1's (Figure 6a) communication patterns for the local Environmental Education projects, a tight bond[5] was formed between the 4-H staff and the 4-H Leader; they ended up working together closely on projects and shared the same goals for what

[5] Footnote. Strong or weak bonds are not represented in the related figures, only in text.

Figure 6. Local Communications Patterns: County 1 and County 6

Figure 6a. County 1

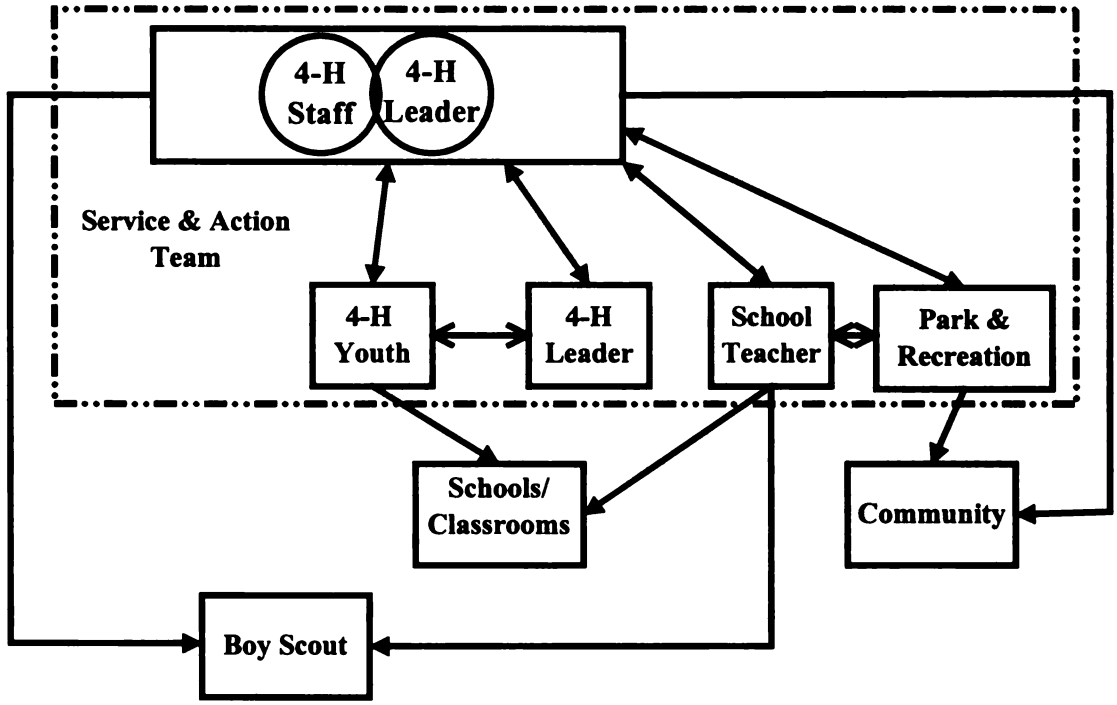
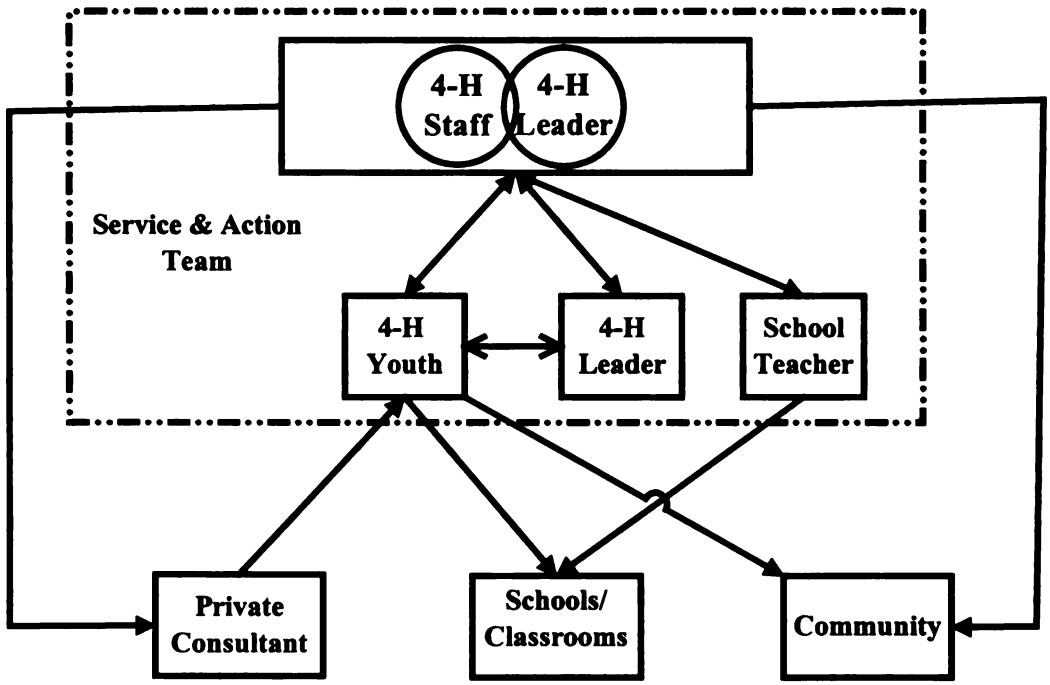


Figure 6b. County 6



(Note: Strong or weak Bonds are NOT represented in these figures.)

they wanted to accomplish. The 4-H staff, because multiple local projects were formed, ended up forming a strong bond between herself and the Department of Parks and Recreation (PR), a local school teacher (she is also a 4-H leader in County 1), Boy Scouts, schools, the community, and 4-H Youth. The 4-H leader had a strong bond with the 4-H member (her daughter), to fulfill science curriculum. The 4-H leader had a weaker bond with the schools. The schools had a stronger bond with the 4-H Youth since the 4-H Youth could be role models to the youth in the schools. The schools had a bond with the Department of Parks and Recreation, since the school was located directly across from a park and used it as a laboratory. The Department of Parks and Recreation had the same goals as the 4-H staff; this mutual goal was to work together using the park, within the community, to promote environmental awareness and education to the community. The Department of Parks and Recreation also formed a bond with the school teacher. The school teacher helped clean up the park and had a real interest in the park since she lived in that particular area. The school teacher formed a bond with a Boy Scout, and other youth to help enhance the park with birdhouses and awareness of the environment.

In County 6 (Figure 6b), a tight bond was formed between the 4-H staff and the 4-H Leader; they ended up working together closely on projects and shared the same goals for what they wanted to accomplish. The 4-H staff, because multiple local projects were formed, ended up forming bonds between the community, a school teacher, 4-H Youth, and a private consultant. The bonds between the 4-H staff and the other parties weren't particularly strong, but the bonds were focused on accomplishing the goals of the local level projects. The 4-H leader had a strong bond between the 4-H Youth, since they were her children, and this project was helping fulfill science curriculum. The 4-H leader had

a weaker bond with the schools and the community for the local EE projects. The schools had a stronger bond with the 4-H Youth since the 4-H Youth could be role models to the youth in the schools. The 4-H Youth also had a bond with the private consultant, because he helped them learn EE subjects in order to compete at the state Envirothon. The 4-H Youth had a strong bond with the community at large, since many presentations were given and Adopt-A-Watershed projects were formed. The school teacher also had a bond with her classroom, and the parents of the students in the classroom. The school teacher had a great concern for the environment, and was excited that the 4-H staff gave her the opportunity to participate in the local projects.

County 2 and County 4 (as shown in Figure 7), were similar in their geographic location within the state. These two counties were similar in that school teachers became actively involved in leadership for the local stewardship projects, and a member of the Service and Action Team became the organizer for the projects.

In County 2 (Figure 7a), the 4-H staff was the center of the Service and Action Team with the Service and Action Team members helping her fulfill the goals. No real strong bonds were formed between any one organization and another. Since the 4-H staff was new in the county, she lacked familiarity with the local organizations. The local project(s) in County 2, were at a standstill until the Soil Conservation District (SCD) partners stood up and said, "Look, we have been dealing with these programs for a long time, so let us help" (Professional 5). Once this group became more involved, things really started to happen in County 2 with the local project(s). The bonds that formed in County 2 linked 4-H staff to the Soil Conservation District, a teacher, a local association, the community, 4-H Youth, and a 4-H Leader. The teacher had a strong bond with her

students (classroom). The Soil Conservation District formed a bond with the local association. The SCD had a special interest in the local EE project (river drainage and water quality), since the SCD had been working previously with the local association on similar issues. The 4-H leader had a strong bond with the 4-H Youth, since some of the youth were her own children, and she was a leader of a local club. She also formed a bond with the community at large because of the projects that were done at the local level.

In County 4 (Figure 7b), the 4-H staff was the center of the Service and Action Team with the Service and Action Team members helping her fulfill the goals. The Service and Action Team members included: a school teacher, Department of Natural Resources professional(s), 4-H youth, and a 4-H Leader. The 4-H staff let the youth decide what local EE project(s) should be done in the county. In all other counties, it was the 4-H staff and other Service and Action Team Members who decided which projects to conduct. The 4-H staff formed a bond with the school teacher, since the youth decided the major project would be with this person. The school teacher's children were in 4-H as youngsters, so the 4-H staff knew the teacher and her interests. The school teacher had a few bonds that made the local EE project work; these included her classroom, the DNR professional (who supplied curriculum and fish), and a local business (which supplied equipment). The DNR professional had a strong bond with the classroom, since he feels it is very important to educate children and had curriculum for them as the local EE project evolved. The DNR professional became the strongest link in this county because of the professional's background and because he supplied the major project for this county. The 4-H staff formed a bond with youth-at-risk to work on an-adopt-a project

Figure 7. Local Communications Patterns: County 2 and County 4

Figure 7a. County 2

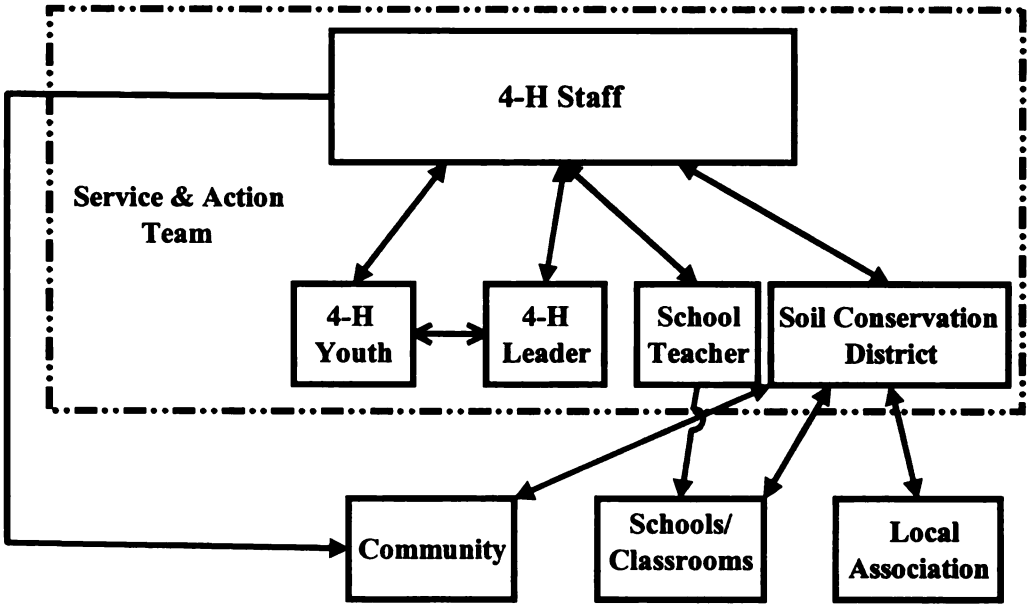
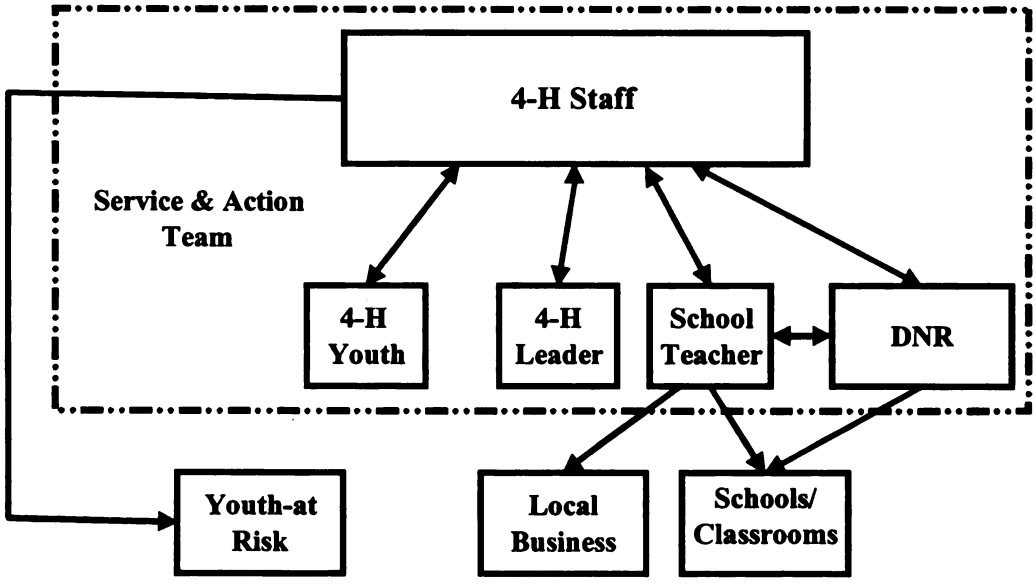


Figure 7b. County 4



(Note: Strong or weak Bonds are NOT represented in the figures.)

that the county chose as one of their projects. The 4-H Leader, however, was very frustrated with the local EE project in this county, since his "ideas" were not chosen by the 4-H Youth. The 4-H Leader felt the grant funds should have been spent more wisely, therefore, he had a very weak bond with the 4-H Youth and the 4-H staff.

County 5 was similar to the three counties that were not included or described in this study, in experiencing a difficult time in forming a Service and Action Team to develop projects. The people who did get involved were single individuals doing individual projects. In general, few communications links were ever formed (Figure 8b).

Originally, the 4-H staff in County 5, was the key initiator of the local EE projects. She tried to form a Service and Action Team and had a few people come to meetings, but the partners never ended up working together for some reason, so their projects were individual with little collaboration. The 4-H staff linked with a teacher/4-H Leader, the Soil Conservation District, and a local community association. Later, the 4-H staff along with Andrea Grix (the Pilot Site Project Assistant for the 4-H Patterns on the Land Initiative) hired a new 4-H staff member to spend fifty percent of his time devoted to the 4-H POTL Initiative, to help coordinate partners. This new staff member then began the individual interaction between the previous Service and Action Team members in the county. The most noticeable bond that formed, in this county, was with the school teacher/4-H Leader and the schools. Weak bonds were formed between the Teacher/4-H Leader and the Soil Conservation District just for the local projects, and weak bonds were formed between the school and the Soil Conservation District. The new staff wasn't able to coordinate partners for a Service and Action Team, so he ended up working individually with each partner.

In County 3 (Figure 8a), the county stands alone in that the 4-H staff member stumbled across a partner, which opened doors that the local Extension staff never expected to happen. The partner was able to recruit hundreds of volunteers for the 4-H POTL Initiative for "Make a Difference Day" within that county. Make a Difference Day let the volunteers feel appreciated, and gave them "eye opener[6]" experiences in their backyards. The 4-H staff member in, County 3, began by forming bonds with the schools and school teachers; initially, he thought that the school system was the way to make this project work. The bond was challenging to form, and during that process he ran across the Local Voluntary Action Center (VAC) which became the key Service and Action Team member to get the local EE project moving. The VAC had the resources to publicize the project, a recognized name in the county, and the resources available to help people. The VAC ended up forming a strong bond with the 4-H staff and formed bonds with school teachers, and the community to complete the local EE project. The school teachers had a very strong bond with the youth (classroom) involved. Interview findings indicate that the project was very successful in the school teachers' mind, in helping youth become better stewards of the land.

County Collaboration and Community Linkages

As discussed in Chapter 2, the community linkage model by Hogue (1994) can be used to analyze counties' levels of community linkage. The linkages vary greatly from county to county, and how the county managed the 4-H POTL Initiative community linkages determined the level of success that was achieved with these projects.

[6] Footnote: Eye opener refers to educational and enlightening experiences.

Figure 8. Local Communications Patterns: County 3 and County 5

Figure 8a. County 3

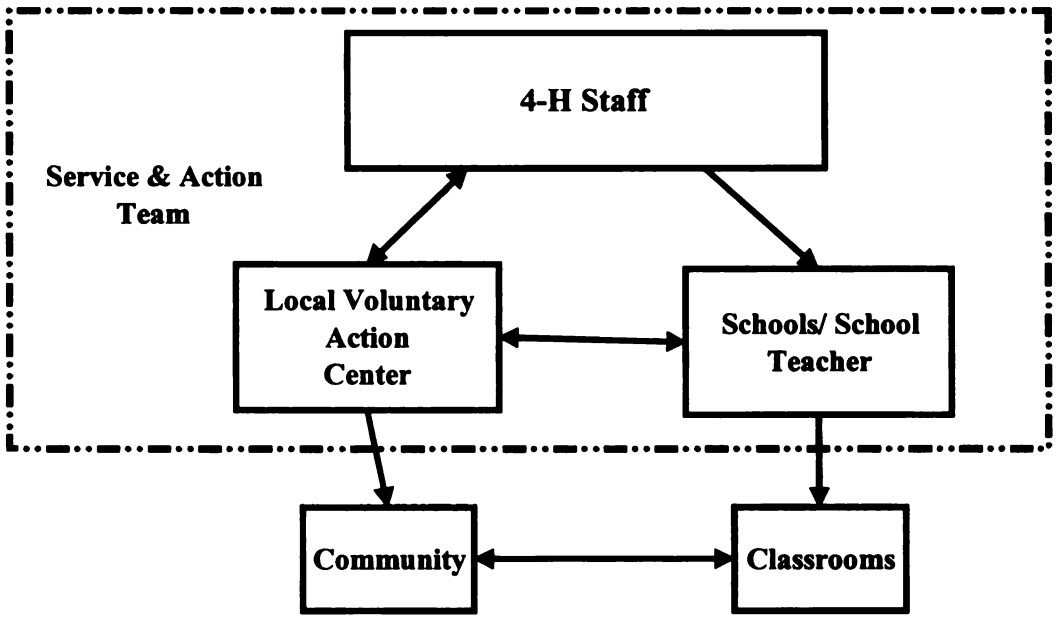
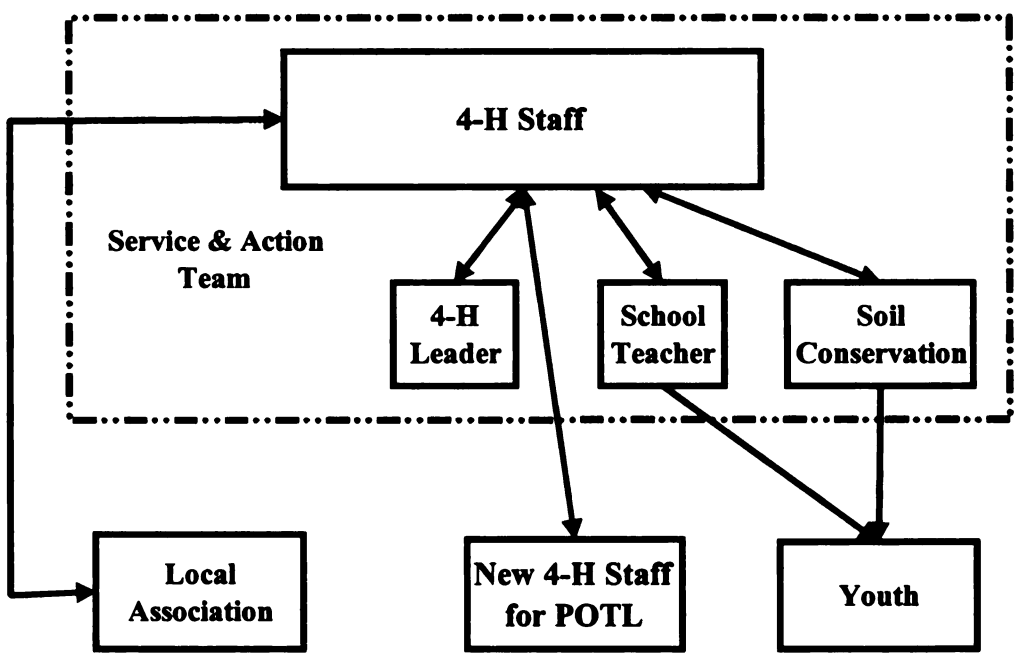


Figure 8b. County 5



(Note: Strong or weak Bonds are NOT represented in the figures.)

County 5 (Figure 8b) can best be described by Hogues' Community Linkage model as the level of Isolation, because there were only individuals' efforts to get projects going and limited networking occurred. In County 5, the people tended not to want to work together and pool their resources.

County 3 (Figure 8a) can best be described by Hogues' Community Linkage model as the level of Coordination or Partnership, because County 3 started at the networking level just to get the local project accomplished, but while the partners were networking, they discovered the Local Voluntary Action Center. The Voluntary Action Center moved the county into a fully-developed partnership, since there was a common purpose, shared resources to address common issues, and a merged resource base to create new projects.

County 1 and 6 (Figure 6) can best be described by Hogues' Community Linkage model as the level of Cooperation or Alliance. Their purposes were accomplished to ensure that tasks were done, to limit duplication, and to match needs and provide coordination. This happened because of the strong bond among the 4-H staff, 4-H leader, and a well-formed Service and Action Team.

County 2 and 4 (Figure 7) can best be described by Hogues' Community Linkage model as the level of Networking, even though they both started with Isolation. County 2 and 4 moved to networking because individuals within each County's Service and Action Team pushed the group forward to create a base of support, to serve as a clearinghouse for information, and to foster participation and community-wide understanding of the local EE project.

CHAPTER 5
DISCUSSION AND RECOMMENDATIONS

Discussion

The 4-H Patterns on the Land Initiative focused on choices and decisions in implementing local EE stewardship projects. Given flexibility to develop projects was well outside of the conventional thinking of 4-H staff. This introduced a spontaneity to the development of projects and the development of community linkages, that had not previously taken place in the area of Environmental Education.

For the most part, the participants were pleased with the results of their new-found freedom; by the same token, some individuals comfortable with the regimentation of 4-H models struggled with the lack of direction, not realizing all along that they themselves could choose the direction of their own programs.

The general perception of participants is that the 4-H POTL Initiative was generated at the state Extension level (i.e. from the top down), and placed upon counties to perform. Revisiting the 4-H POTL Initiative goals in Chapter 1, the 4-H POTL Initiative staff (state Extension) were trying to develop self-supporting EE stewardship projects within community resource development networks.

In the absence of the typical top down approach, applied through mandates and directives (models), the counties had some startling successes for EE projects. Successes were generally made possible by forming Service and Action Teams to effect partnerships and coalitions/collaborations. Every bit as important as sustainable EE projects at the grass roots level, was the formation of the community linkages (Hogue, 1994), used as the catalyst of successful and sustainable EE projects.

The purpose of this study was to conduct a qualitative focused interview with participants in the 4-H POTL Initiative; the four research questions were as follows:

1. What were the characteristics of local program staff and participants, including their attitudes, skills, knowledge, and aspirations before, during and after the pilot program?

2. When local groups were given flexibility, what shape did those local Environmental Education projects take?

3. What kinds of volunteers were attracted to the 4-H POTL Initiative at the local level?

4. What were the volunteers' expectations of the local project for which they volunteered?

Therefore, conclusions were formed for each question under investigation.

Research Question 1

What were the characteristics of local program staff and participants, including their attitudes, skills, knowledge, and aspirations before, during and after the pilot program? For this question, the researcher asked participants how their attitudes, skills, knowledge, and aspirations progressed incrementally with the writing of the grant, formation of the Service and Action Team, and formation of projects.

The attitudes of the 4-H staff were that their role was to write the grant, pull together a county Service and Action Team, and be the facilitators for their groups. Volunteers' attitudes, skills, knowledge, and aspirations in joining the Service and Action Team were wanting to share knowledge with youth, develop community projects, and a general "let's see what can happen" attitude.

These attitudes, skills, knowledge, and aspirations began to transition as the Service and Action Teams formed. The process of forming Service and Action Teams

proved to be difficult in most counties, yet yielded the best results when done successfully. When the members of Service and Action Teams did work together, they developed projects with relevance to the community and to all participants involved.

Implementation of these projects affected attitude change among participants; completing the projects demonstrated to participants that they could work outside of the typical 4-H model and achieve great results. Working to conduct projects created an "eye opener" phenomenon, helping participants to view EE projects in their counties in new self-directed ways.

Post-project attitudes, skills, knowledge, and aspirations among Service and Action Team staff and volunteers were that the projects were worthwhile; all of the participants wished they had more time to work on the projects, and looked forward to doing projects again in the future. Thus, the POTL Initiative demonstrated sustainable EE at the grass roots level as a viable concept (Figure 1).

Although many of these conclusions point toward successful EE project implementation, however, in some counties, this was not the case. The 4-H staff felt that they ended up doing most of the work by calling meetings, running Service and Action Team meetings, and all related paper work. These projects were, therefore, less sustainable.

Research Question 2

When local groups were given flexibility, what shape did those local Environmental Education projects take?

These programs took many different forms through the different counties, often reflecting the local environment and mirroring the attitudes of the local 4-H staff's

perceptions of change.

Five of the 4-H staff thought the program was refreshing, in that they could design it any way they wanted, since there weren't EE materials in place. The 4-H staff who wasted no time in forming the Service and Action Team and in establishing community collaborations that they needed accelerated the evolution and implementation of projects over time. One of the 4-H staff couldn't get past the frustration of not having EE materials in place, therefore, he/she did not really understand or successfully organize a Service and Action Team. This frustrated staff member still did EE projects, but these were done basically by individuals within the county and not through the collaboration of agencies, organizations or businesses.

Research Question 3

What kinds of volunteers were attracted to the 4-H POTL Initiative at the local level?

Seventy-four percent of the participants attracted to the 4-H POTL Initiative were female with the remaining twenty-six percent males. All participants happen to be Caucasian. The demographics do not completely explain why the volunteers were attracted to the 4-H POTL Initiative. Fifty percent of the volunteers involved with the 4-H POTL Initiative were recruited by the local 4-H staff. The 4-H staff recruited these individuals based on past voluntary experiences and knowing their interests within the community. The participants were motivated to volunteer for a variety of reasons such as: fulfilling science requirements, personal interest in the environment, concerns about the environment, participated in 4-H while they were youth, teach youth about the environment, pass EE projects along to others in the community, and for a variety of

reasons related to their job description.

Research Question 4

What were the volunteers' expectations of the local project for which they volunteered?

In comparing the case study and outcomes with the 4-H POTL Initiative's goals, most of the counties exceeded their own expectations. Expectations ranged from very little expectation, to large youth involvement, more school involvement, and more volunteerism. The people who had very little, if any, expectations had a brighter outlook on the program and thought it was very successful in terms of completing projects. The participants who had a great expectation felt frustrated and disappointed when not all expectations were accomplished. None of the interviewed participants gave up; even though they were disappointed, they tried again and again. A willingness to do more projects and similar projects in the future was universally expressed by all participants interviewed.

Recommendations and Implications

The recommendations and implications as follows are based on the findings directly related to the questions asked by the researcher.

The first recommendation is to establish a chairperson of the Service and Action Team at the beginning of the project. The implication of establishing a chairperson at the beginning of the project for a Service and Action Team promotes accountability, leadership, organization, group facilitation, and stream lines the decision making process as Service and Action Teams plan and conduct local projects.

The second recommendation is for the 4-H POTL Initiative staff to provide information within EE materials to give to pilot counties earlier in the program. The implication for providing EE materials early on in the program will help local counties provide guidance and evaluate needs, and will enable Service and Action Team participants to access resources within the community.

The third recommendation is for county staff to interview local EE volunteers for characteristics, motivations, interests, and skills. The implication for interviewing local EE volunteers will help participants' use the characteristics, motivations, interests, and skills to the best advantage of the project, and will optimize the over all usefulness of volunteers.

The fourth recommendation is for all local EE goals and objectives to be spelled out clearly by Service and Action Team participants working together collaboratively. The implication in spelling out the local EE goals and objectives to participants, the big picture of what local Teams can accomplish with the program will be made more clear.

The researcher further recommends the following:

- Special workshops should be conducted to increase knowledge on Environmental Education programs. Successful EE implementation requires continued preservice and inservice (Samuel 1993, Smith-Sebasto 1998). Samuel further suggests that the process of implementing EE is the process of managing change. Others suggest that, as a result of a workshop, educators become motivated and are more willing to involve students outside of school programs (Covert 1982).

- The 4-H staff and Service and Action Team need to be aware of Hogue's study of community linkages (Hogue 1994). Hogue's community linkage model would provide the 4-H staff and Service and Action Team with organizational options.
- Effective, relevant projects are essential for recruiting and sustaining volunteers. Activity promotes interest. Other volunteer motivators include helping others, doing something worthwhile, learning new skills, adhering to agency goals, improving quality of life, creating a better society, and increasing personal knowledge (Rumsey 1999).
- County-to-county communication between the Service and Action Teams will help Teams that are struggling learn from experiences of more successful county Teams. County-to-county communication will show each county that it is different and it has different needs. What works for one county may not work in another county. Yet networking can occur and projects are more easily sustained when county Team members can learn from others about how to form successful local collaborations.

Research Limitations

The limitations of this study are as follows:

1. There were a small number of people involved with this Case Study.
2. No statistical analyses were conducted. Instead, this qualitative study relied on descriptive analyses and a non-random sample.
3. No generalizations can be made about the population of all active Michigan EE volunteers, only the people interviewed.
4. This was a pilot project and has not been replicated from another project.

5. Participants were asked to recall (pre) attitudes of the programs.

Recommendations for Further Research

Many possibilities exist for future research in this area. These include the following:

1. Extend this qualitative research study by interviewing youth and other community members, to determine the impact of environmental education and stewardship in programs similar to the 4-H POTL Initiative.

2. Conduct a research study on the remaining three counties that were not involved in this case study, to determine why they were not able to fulfill aspects of the grant outline.

3. Conduct the Initiative again, having pilot county staff serve as mentors for other county staff.

4. Conduct a study on communities' perceptions of Environmental Education Programs within each pilot county.

APPENDICES

APPENDIX A: INITIAL PHONE CONTACT WITH 4-H STAFF

Phone conversation with 4-H staff to collect names of volunteers involved with the 4-H Patterns on the Land Initiative (POTL)

Hello Sir/Madam,

This is Rebecca Lincoln and I have been working with you on the 4-H POTL Initiative. I have some exciting news and need your cooperation and help to fulfill this news. I will be writing my thesis on the 4-H POTL Initiative.

What I need from you is names of several people that have been very beneficial to you during the 4-H POTL Initiative. I'd like a name and phone number of a Teacher, Professional and 4-H Leader that you have on your Service and Action Team.

If you could contact them and let them know I'd be calling I would appreciate it, so that I don't have a cold start when I go to contact them.

I appreciate all your help and will be in contact with you again to ask permission for a face-to-face interview with you, and will set up the time and date at that point.

Thanks so much. Goodbye.

APPENDIX B: PHONE CONVERSATION WITH POTENTIAL INTERVIEWEES

Hello Sir/Madam,

This is Rebecca Lincoln and your 4-H Staff should have contacted you to let you know I'd be calling. I work within the Michigan State University's Department of Fisheries and Wildlife, and work a great deal with 4-H Natural Resource Environmental Education programs.

If they haven't, I'd like to tell you why I am calling. Your 4-H Staff gave me your name and number, because they thought you were a key player in the 4-H POTL Initiative and would be a good source for me to contact regarding my thesis. I am writing my thesis on the 4-H POTL Initiative.

Would you be willing to be a part of my study?

IF NO. Thank you and have a good day.

IF YES. How this study will function is I'd like to set up a 30-60 minute time period with you, face-to-face, and ask you a few questions about the 4-H POTL Initiative and your perceptions. I will be traveling to your location at your convenience. This will be a tape-recorded session. Do you have a problem with me taping our conversation?

When is a good time to set up the interview? (work out details)

Thank you, I will be sending you a confirmation letter in the mail along with a Personal Interview Consent Form. If you could sign the paper and have it available when I show up to the interview, I'd appreciate it.

Thank you for your time; I look forward to seeing you on Date X, Time X and Place X.

Goodbye.

APPENDIX C: CONFIRMATION LETTER FOR INTERVIEWS

(Note. Letter was prepared on Michigan State University Department of Fisheries and Wildlife letterhead)

October 19, 1998

Dear Participant X,

Thank you for granting me an interview on **Date X and Time X.**
I will see you at:

Place X

As I stated on the telephone, this interview will be face-to-face and about 30-60 minutes in length. I will be taping our session only so I do not miss any important information. However, I want to assure you that **your names** and **specific job descriptions** will remain confidential and **will not appear** in the transcription of the tape.

For your protection, please read and sign the enclosed Personal Interview Consent Form. Please bring it with you to the interview.

If you need to contact me please feel free to call me anytime at (517) 432-5037 or e-mail me at lincolnr@pilot.msu.edu

Sincerely,

Rebecca Lincoln

APPENDIX D: PERSONAL INTERVIEW CONSENT FORM

PERSONAL INTERVIEW CONSENT FORM

The 4-H Patterns on the Land Initiative at Michigan State University has been a unique program to help re-orient the Environmental Education system (projects, volunteer training, support, and events) in order to develop stronger, local youth environmental science and stewardship education programs. As you may be aware, a key feature of the initiative was to empower local "Service and Action Teams" of teens and adults (adult youth leaders, resource people, community leaders, and science teachers) to work with youth to conduct ongoing, environmental science learning activities and community service stewardship projects. The purpose of the interview is to learn more about

(1) the volunteers' attitudes, skills, knowledge and expectations involved with the 4-H Patterns on the Land Initiative; and
(2) what form the programs took at the local level and what kind of volunteers were attracted.

Your participation in this interview is entirely voluntary. You may elect not to answer any questions, or to discontinue the interview at any time. Your comments and opinions about the 4-H Patterns on the Land Initiative and Environmental Education projects will be held in the strictest confidence. In no way will specific responses given during this interview be attributed to you in the report related to this study.

I have read and understood the above, and, by signing this form, I voluntarily agree to participate in this interview.

Date: _____ Signature: _____

APPENDIX E: BACKGROUND DATA SHEET

4-H PATTERNS ON THE LAND INITIATIVE

BACKGROUND DATA FOR ENVIRONMENTAL EDUCATION CASE STUDY

Marital status:

___ Single ___ Married ___ Divorced ___ Separated ___ Widowed

Sex:

___ Male ___ Female

Age: ___

Education Level:

___ Did not complete High School

___ High School

___ Undergraduate/College

___ Graduate School

Ethnicity: _____

APPENDIX F: FOCUSED INTERVIEW QUESTIONS FOR 4-H STAFF

1. How did you hear about the 4-H Patterns on the Land Initiative?

2. Briefly state why you chose to participate in the pilot project. What role did you play?

3. How much time did you spend on the pilot project? Was it worth your time?

4. Can you tell me what your attitudes, skills and knowledge were towards Environmental Education projects? (before, during and after the 4-H POTL Initiative)

5. What were your expectations of the project, before, during and after the 4-H POTL Initiative?

6. When given flexibility (no set agenda) with the pilot project, what form did it take? Who initiated it?

7. How are you reaching volunteers in your community with regards to environmental education programs?

8. How did you go about recruiting/picking volunteers for the pilot project?

9. If you were to do this all over again, what (if anything) would you do differently to recruit volunteers? What suggestions would you have for others?

10. Did you develop a stronger program as a result of a community team?

11. What do you feel has been the most beneficial outcomes of the pilot project?

12. What do you feel has been the most negative outcome of the pilot project?

13. Any other suggestions and comments on or for Environmental Education projects?

APPENDIX G: FOCUSED INTERVIEW QUESTIONS FOR VOLUNTEERS

Volunteers = Teacher, 4-H Leader and Professional

1. What other voluntary involvement do you have?
2. How did you hear about the 4-H Patterns on the Land Initiative?
3. Why did you volunteer for the pilot project?
4. How much time did you spend on the pilot project? Was it worth your time?
5. Can you tell me what your attitudes, skills and knowledge were towards Environmental Education projects? (before, during and after the project)
6. What were your expectations of the program, before, during and after the project? How did this encourage or discourage participation with training, support, and projects?
7. Were your expectations met? Why or why not? Explain.
8. What do you feel have been the most beneficial outcomes of the pilot project?
9. What do you feel have been the most negative outcome of the pilot project?
10. Did you develop a stronger program as a result of a community team?
11. If you were to do this all over again, what (if anything) would you do differently?
12. Any other suggestions and comments on or for Environmental Education projects?

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