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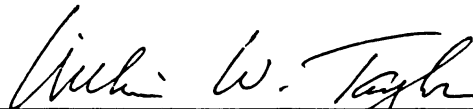
EVALUATION OF THE USE OF LEADERSHIP TOOLS
TAUGHT IN THE EMERGING LEADERS PROGRAM

presented by


Cecilia Morgan Lewis

has been accepted towards fulfillment
of the requirements for the

M.S. degree in Fisheries and Wildlife



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**EVALUATION OF THE USE OF LEADERSHIP TOOLS TAUGHT IN THE
EMERGING LEADERS PROGRAM**

By

Cecilia Morgan Lewis

A THESIS

**Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of**

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ABSTRACT

EVALUATION OF THE USE OF LEADERSHIP TOOLS TAUGHT IN THE EMERGING LEADERS PROGRAM

By

Cecilia Morgan Lewis

Organizations dedicate resources in the form of people, time, and money to support leadership training for their employees in the anticipation of an improved work place and more productive environment. This study evaluated whether past participants (between October 2003 and June 2006) from the Emerging Leaders Program used the leadership tools taught in the program and whether these individuals valued their participation. A semi-structured survey was used to determine if participants used the tools taught in the program and how often they used them. Participants were also asked to if using these tools have improved their ability to communicate and make decisions. Results showed that participants generally valued their participation in the program and they used the tools taught frequently or somewhat frequently. Participants also felt that the tools were somewhat to very useful and their ability to communicate and make decisions had improved. Thus, it is clear that the Emerging Leaders Program facilitates the tools and practices of natural resources professionals, which should enhance the productivity and effectiveness of the individuals, and organization that invests in leadership programs for their employees.

DEDICATION

This thesis is dedicated to my family.
My mom Florence and my brothers Demetrius and Fitz.

ACKNOWLEDGEMENTS

I would like to thank my advisor and committee chair, Dr. William W. Taylor for his endless support and encouragement during my master's program. His persistence and dedication have not only been an encouragement to me, it has taught me some of the most important lessons of my career to date. I look forward to continuing to learn and build on the foundation that he has laid.

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Several of my peers, from various departments across MSU, have also contributed a great deal to my graduate education experience in innumerable ways. Their contributions come in the form of fellowship and encouragement over the past two years.

Thanks to my family, and especially my mom, for supporting my decision to attend Michigan State University.

Finally, my deepest thanks to God for answering so many of my prayers and helping me through my toughest times in Michigan.

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Introduction

Leadership Training Programs in Natural Resources

As the demand for natural resources (i.e., fish, wildlife, water, food, fiber) continues to rise, it is imperative that they are used in a manner that will ensure their continued availability today and into the future. It is especially important that the resources we depend upon are protected from over-exploitation and that access to our natural resources is equitably distributed for mutual use and benefit for humans. Natural resource employees across a variety of disciplines are empowered with making decisions that, in part, determine whether the natural resources we rely on and enjoy are healthy and can be used sustainably for generations to come. These principles are part of most resource management agency's mission statements. For instance, the mission of the U.S. Fish and Wildlife Service (USFWS) is to work "with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people" (www.fws.gov) while the Michigan Department of Natural Resources' (MDNR) mission statement asserts that "The Michigan Department of Natural Resources is committed to the conservation, protection, management, use and enjoyment of the State's natural resources for current and future generations" (www.michigan.gov/dnr).

Fish and wildlife professionals, hydrologists, agronomists and geologists are some of the individuals who provide the expertise used to manage trust resources on behalf of the public. These teams are comprised of experts within an agency that collectively protect, conserve, and restore natural resources at the local, state, or national level. At each level of administration in an organization individuals are responsible for guiding the direction of research and the flow of information within the agency and to the

public. Many of these individuals are expected to exercise leadership in addition to their managerial duties.

Definition of Leadership

Leadership is defined as “an influence relationship among leaders and followers who intend real changes that reflect their shared purposes” (Daft 1999). Words like visionary, flexible, accountable, and goal oriented, to name a few, are characteristics used to describe a leader (Daft 1999). “Leadership occurs *among* people; it is not something done *to* people” (Daft 1999). It requires a reciprocal relationship between people that share common goals. Leadership involves shared purpose among the individuals involved, the intention or active pursuit of change, a personal responsibility to achieve desired outcomes, influence or the capacity of someone or something to be a compelling force to produce the desired behavior/outcomes and lastly, leadership requires followership (Daft 1999).

To enhance the leadership abilities of employees many natural resource agencies have either developed in-house leadership programs or employed the services of consulting firms to conduct leadership training for their employees. Natural resource agencies like the USFWS and MDNR offer leadership-training programs to help employees improve their decision-making abilities and improve the efficiency of the decision-making and implementation process. Programs like The National Conservation Leadership Institute (NCLI) (www.conservationleadership.org) and conservation leadership courses through the National Conservation Training Center (NCTC) (<http://training.fws.gov>) are examples of the leadership training programs available to natural resource professionals.

There are also several natural resource leadership programs offered through universities. The College of Agriculture and Natural Resources (CANR) at Michigan State University offers the Emerging Leaders Program and Leadership Advancement Program (www.glla.msu.edu). Although each program uses a variety of curriculum formats and delivery styles, they all share common elements of their missions, objectives, and/or philosophies –developing the next generation of natural resource leaders.

The Emerging Leaders Program at Michigan State University

The Great Lakes Leadership Academy (GLLA) is coordinated by the College of Agriculture and Natural Resources (CANR) at Michigan State University and sponsored in part by Michigan State University Extension and the W.K. Kellogg Foundation (www.glla.msu.edu). The GLLA offers two programs –the Emerging Leaders Program (ELP) for individuals in the early stages of their leadership careers and the Leadership Advancement Program (LAP) for natural resource leaders who are further along in their professional development. The ELP is an entry-level leadership development program for individuals in a variety of natural resource related professions. Individuals who participate in the ELP are interested in identifying and developing tools for becoming more effective and efficient leaders. The goal of this project was to evaluate the utility of the leadership tools taught in ELP. The specific objectives of this study were to determine if:

- participants used tools taught in the ELP program after participating in the program,
- the tools were useful/relevant to participant's personally and professionally after participating in the ELP,

- participants shared any of the information they learned in the course with others individuals that did not participate in the ELP,
- there is a desire/need for an alumni network of ELP participants.

Program overview and curriculum of the Emerging Leaders Program

The mission of the ELP is "to promote positive change, economic vitality and resource conservation, and to enhance the quality of life in Michigan by encouraging leadership for the common good" (www.glla.msu.edu). The course is divided into 3-four day sessions principally taught by a consulting and training firm called Progress Associates located in Syracuse, New York in concert with instructors from CANR who assisted with teaching and program coordination.

Course objectives, set forth by Progress Associates for the ELP, include: 1) to teach each participant specific practical leadership skills sometimes referred to as process tools or relationship leadership skills 2) enhance each participant's ability to work as an emotionally mature leader sometimes referred to as upgrading participant psychological readiness skills, and 3) teach each participant how to build meaningful partnerships, relationships and networks between the individuals and agencies/organizations represented in this [course] (sometimes referred to as learning collaboration skills). The tools and skills taught in the ELP curriculum included the following (www.ProgressAssociates.com):

- Content, process, and relationship (CPR) is a tool used to assess the effectiveness of a meeting by determining how much content the meeting contains (i.e., the information needed to do your job), the methods used to maintain group

relationships or process, and the exchange of communication between members of the group or relationship.

- Labeled decision-making (LDM) is a model used to help individuals or groups make decisions, ranging from simple to complex, in a timely, equitable, and responsible manner.
- Emotional maturity (EM) was used to inform participants of the actions of emotionally mature decision-makers. For example, emotionally mature decision-makers are not afraid to take risk, make a decision rather than procrastinate, and they do not over use analysis as a strategy for avoiding making risky decisions.
- The FACT model (FACT MOD) or feeler, action, creative, and thinker styles were used to describe the personality and communication styles of an individual.
- Meeting management tools (MMT) are used to help those who run meetings, or will run meetings in the future, keep meetings running smoothly and efficiently by over coming some of the barriers that keep meeting from being as productive as possible. For example, assigning group members to a team/work group ahead of time and framing conversations before group discussions will save time and keep meetings moving forward and addressing the relevant issues (Progress Associates 2006).

Methods

Target Population

The target population for this study consisted of 84 individuals that participated in the Natural Resource Leadership Program (NRLP), now called the Emerging Leaders Program (ELP), between October 2003 and 2006. Each year-long course was divided into three, four-day sessions held at The Shack in White Cloud, Michigan. Individuals in the target population were primarily natural resource personnel from state, federal, and tribal agencies in Michigan with a few from resource agencies in other parts of the United States. Employees from academic institutions and non-governmental conservation related organizations (NGOs) were also a part of the target population. Participants from the first four cohorts were targeted for this study as they have had three to five years to utilize the tools taught in the ELP curriculum. As such, these individuals had more opportunity to use and refine the skills taught in the ELP curriculum and would be more capable of assessing the program's value over time than individuals who had more recently completed the program.

Survey Distribution

A semi-structured survey instrument, consisting of closed and open-ended questions, was used to gather information from ELP participants. I created and administered the survey instrument electronically via survey software at www.SurveyMonkey.com. Survey Monkey is a web-based survey service used to create surveys, collect and summarize data. On November 10, 2008, 81 out of 84 individuals in the target population (Table 1) received an introduction email stating the purpose of the study and asking for their voluntary participation (Appendix A), followed by a second

email on November 28, 2008 containing a link to the actual survey and consent letter (Appendix B and C).

Table 1. The number of ELP participants (from cohorts 1-4) contacted for this study and the timeline used to administer the survey instrument. Also indicates the number of individuals that received the survey instrument and the number of individuals that started and completed the survey.

Number of Participants	Action taken	Comments
81 of 84	Received introduction email on November 10, 2008	3-returned; address no longer valid
77 of 84	Received link to survey November 26, 2008	7-returned due to out-of-office replies/address no longer valid
78 of 82	Received reminders on Dec 15, 2008	4 -returned due to out-of-office replies and 2-non-working email addresses removed from the list
44 of 82	Responded to the survey	53.7% responded to survey
36 of 82	Surveys completed in entirety	43.9% completed the survey

Seventy-seven individuals out of 84 received the second email. Messages sent to email addresses that did not produce an ‘out of office reply’ or a return notice stating that the recipient’s address is no longer working, were considered to have been received by the intended recipient. I made an effort to obtain updated email addresses for emails that were returned as invalid. I was not able to find the email addresses for two individuals, as they no longer worked for the agency that they were associated with when enrolled in the ELP. Thus, they were removed from the contact list making a total of 82 individuals as the target population for this study. The third and last email was sent to these 82 past participants on December 15, 2008 containing a thank you note and reminder to fill out the survey if they had not already done so (Appendix D).

Survey Response Rate

Of the individuals that received a request to participate in this study, 44 responded to the survey and 36 of the 44 respondents completed the survey in its entirety (Table 1). Overall there was a 43.9% response rate (36 out of 82) to the survey. In the survey analysis, I used data from all 44 respondents where applicable; this includes the questions in the tool, communication, and decision-making section of the survey only. The remainder of the survey (open-ended, information sharing, alumni networks, and demographics questions) was answered by a total of 36 participants. The analyses for the open-ended, information sharing, alumni networks, and demographics sections of the survey were based solely on responses from 36 individuals.

Survey Design and Data Measurement

The survey instrument used for this study contained a combination of open-end and closed-ended questions. Closed-end questions were a mix of multiple-choice and matrix questions using Likert scale choices. Multiple-choice questions contained an additional answer choice called “other” giving respondents the opportunity to give additional information. The survey instrument consisted of 25 questions divided into five sections including: program specific (5), open-ended (4), information sharing (5), alumni networks (4), and demographics (7) questions. The program specific section of the survey consisted of questions about a specific set of leadership tools and techniques taught in the ELP. Those tools were: Labeled Decision Making (LDM), Meeting Management Tools (MMT); Content, Process, and Relationship (CPR); Change Model Theory (CMT), FACT Model (FACT MOD), and Emotional Maturity (EM). Survey respondents were asked to indicate which tools they used and how frequently they used them. The second question asked how useful the survey respondent believed a particular

tool has been for them. The first two survey questions were used to help me determine if survey respondents were using the tools taught at the ELP and if so how frequently were they being used and whether using them has been useful to them. These questions directly addressed the first two objectives of this study: 1) determine if program participants used the tools from the ELP and 2) determine if the tools were useful/relevant/helpful to program participants personally and professionally. Determining how often the tools were being used and if respondents believed the tools they used had some value provided me an indication of whether people would then share that information with others. These questions were also an indication of the continued use of the tools taught in the ELP.

The open-ended section of my survey contained four questions. I used the opened-ended questions to give participants an opportunity to provide me with feedback about the program in their own words. The first question in the open-ended question section was “Has your definition of leadership changed after participating in the NRLP (called the ELP in this paper)? If so, how has your definition of leadership changed?” I asked this question to determine whether their perception of leadership changed after participating in the ELP and to gauge each survey participant’s perception of how exactly their perception of leadership changed as a result of participating in the ELP. The second open-ended question, “What was the best aspect of the NRLP course? What was the worst part?” was an opportunity for participants to tell me what they appreciated the most and the least about the program. The question was intended to identify items that may have facilitated learning or had been barriers to learning course information. The last two questions in this section were meant to solicit information about the program curriculum.

I wanted to know if there were existing components in the curriculum that could be changed to improve the training or components that could be added to improve the curriculum. Specifically, I asked, “What can be changed about the curriculum to improve the NRLP?” and “What components can be added to the NRLP (ELP) curriculum to improve leadership training?”

The information sharing portion of the survey was designed to help determine if course participants communicated with other individuals about the program and if so, how many people they told and why they chose those particular individuals. Responses were also used to find out how participants learned about the program. Questions in this section included: 1) How did you learn about the NRLP? 2) Have you shared any of the tools from the NRLP with other individuals? 3) Approximately, how many people have you shared the tools taught in the NRLP with? 4) How did you decide which individuals to share course information with? 5) Have your co-workers, supervisors, family members, acquaintances, etc. approached you with questions about how to address an issue or problem based on your participation in the NRLP? These questions were used to address the third objective of this study, which was to determine if participants shared any of the information they learned in the NRLP with other individuals that did not participate in the NRLP. By understanding how a group of individuals learned about the program, it gave me information about how individuals in the future might hear about the program and whether one method or another distributes the information more effectively to a relatively large number of people. Understanding with whom course participants share information with is an indication of whether participants only use/share the

information from the program only at work (or in a work setting), if they use/share course information only in their personal lives (outside of work), or a combination of both.

The fourth goal of this study was to determine if there was a need or desire for an alumni network or follow-up training. The need for an alumni network is an indication of the desire for continued leadership training or a forum to bolster or expand upon the tools taught in the program. I asked survey participants: 1) Are you interested in participating in an alumni network? 2) Would an alumni network help you utilize the tools learned in the NRLP? 3) If you answered maybe or not sure to the last question, please explain your answer and 4) How much time are you willing to invest in an alumni network? The final portion of the survey contained demographic questions used to help me characterize the survey respondents. Questions about education level, employer, age, gender, and ethnicity were used to better understand how individuals split out into groups or if certain responses were determined by ones affiliation with one group or another.

Data Analysis

I summarized the data from multiple choice and matrix questions using the SPSS 16.0 software package for Macintosh computers. Data summaries included percentages, frequency tables and graphs for responses given to multiple-choice and matrix questions. I also used the correlation and crosstabs functions of the software package to determine if there were any relationships between variables. I used the Pearson correlation function to compare ordinal variables such age and education level versus the frequency of tool use. The crosstab function was used to compare variables with dichotomous answer choices such as gender versus and whether a participant shared information with individuals that did not participate in the program.

Demographics

There was approximately a 1:1 ratio of men to women (52.8% and 47.2% respectively) among the group of respondents for this survey. Approximately 55.6% of survey participants were between the ages of 45-59, with 41.7% of the group between the ages of 25-44 and the remaining 2.8% over the age of 60 (Table 2). Of the respondents that reported their ethnicity, 91% of them identified themselves as Caucasian, white, or of European heritage with the remainder of the group (9%) reporting themselves as Asian, black or mixed. When asked which agencies respondents worked for, they reported a total of 11 different agencies and of those agencies 63.9% of them were state government agencies. All the survey respondents reported having some form of education beyond the secondary education (high school) level. Most individuals (50.0%) possessed a Master's degree and the remaining participants have either a bachelor's degree or PhD/JD/MD (36.1% and 13.9, respectively).

Table 2. Demographic information from survey respondents who took ELP including age, gender, ethnicity, and education level.

Demographic Measures	Category	Percent
Age	25-34	13.9
	35-44	27.7
	45-59	55.6
	Over 60	2.8
Gender	Male	52.8
	Female	47.2
Ethnicity	Caucasian, white, or European descent	91.0
	Black, Asian, or mixed	9.0
Education Level	Bachelor's	36.1
	Master's	50.0
	PhD, MD, JD	13.9
Employer Type	Federal	11.1
	State	63.9
	Tribal Nations/First Nations	5.6
	Academic Institutions	11.1
	Non-Governmental Organizations	5.6
	Other	2.8

Results and Discussion

Program specific questions, Communication and Decision-making

Of the six specific tools survey respondents were asked to evaluate, most respondents reported that they used LDM (32.6%), MMT (38.6%), CPR (48.8%), and EM (38.6) frequently or somewhat frequently while CMT (40.5%) and FACT MOD (40.5%) were used on an occasional basis (Table 3). This indicates that the majority of the past participants that completed the survey are using a number of the tools taught in the ELP several years after their participation in the program. Respondents were also given the opportunity to mention other tools they have used and the frequency with which they have used them. Additional responses (n=8) included: Gathering-the-Givens—a method of gathering and stating all the general or known information about a topic at the beginning of a meeting to avoid reiterating or restating it several times, thus saving time and encouraging a more efficient meeting process, was mentioned (2 times) by survey respondents. Myers-Briggs personality types (mentioned one time), conflict management and accountability (mentioned one time), and By-the-Numbers (mentioned 3 times), is a method used to gather input from all meeting participants on a particular topic, were stated by survey respondents as tools they have used since participating in the ELP.

Over 50% of respondents indicated that LDM, MMT, CPR, or EM was very useful and CMT and FACT MOD were somewhat useful (Table 4). All Pearson correlation results (Table 5) for tool use and participant perceived utility were positive and significant at the 0.01 level ($p = 0.00$) indicating that there is a relationship between whether survey participants used each of the tools and whether they found the tools to be useful in his/her personal or professional lives.

Table 3. List of leadership tools from the ELP curriculum that survey participants used and the frequency with which they used each tool. All numbers are percentages.

	Frequently (%)	Somewhat Frequently (%)	Occasionally (%)	Never (%)
Labeled Decision Making	32.6	30.2	14.0	23.0
Meeting Managements Tools	38.6	30.2	20.5	2.3
Content Process Relationship	48.8	20.9	20.9	9.3
Change Model Theory	26.2	23.8	40.5	9.5
FACT Model	14.3	26.2	40.5	21.4
Emotional Maturity	38.6	34.1	25.0	2.4

Table 4. Results for the degree of utility that survey participants believed each of the tools contained. All numbers are percentages.

	Very Useful (%)	Somewhat Useful (%)	Slightly Useful (%)	Never Used Tool (%)
Labeled Decision Making	57.1	21.4	2.4	19.0
Meeting Managements Tools	64.7	27.9	2.3	2.3
Content Process Relationship	50.0	28.6	14.3	7.5
Change Model Theory	28.6	40.6	19.0	11.9
FACT Model	30.2	32.6	23.3	14.0
Emotional Maturity	51.2	32.6	11.6	4.7

Table 5. Pearson correlation results showing the relationship between the frequency with which a tool is used and how usefulness a survey respondent finds the tool. All results significant below the <0.001 level.

Tools from ELP Curriculum	Pearson Correlation
Labeled Decision Making (LDM)	0.835
Meeting Management Tools (MMT)	0.699
Content, Process, Relationship (CPR)	0.838
Change Model Theory (CMT)	0.745
FACT Model (FACT MOD)	0.733
Emotional Maturity (EM)	0.759

Pearson correlation analysis of tool use and usefulness versus age and gender showed a mix of results ranging from strong, positive relationships to strong, negative relationships between tool use or usefulness and education level of the participant (Table 6). The use of MMT and CPR (Pearson correlations = -0.479 and -0.525, respectively) both had a strong negative relationship with gender at the 0.05 level indicating that females were more likely to use MMT and CPR than males. Results also showed that females were more likely to find that CPR was useful (Pearson correlation = -0.360). Although the remainder of the relationships between tool use, usefulness, and gender were not strong at the 0.05 level, Pearson correlation results were all negative indicating that females were more likely to use a particular tool and report that a particular tool was useful than male participants. Strong, positive relationships between tool use, usefulness, and age were found for the MMT and CMT indicating that the older a survey participant was the more likely he/she was to use a tool and find it useful. The remainder of the relationships between tool use, utility, and age were not strong relationship, however they were all positive relationships indicating increased use and utility with increasing age. There may be several speculations as to why an individual may use a tool and find it useful with age.

A few speculations I would like to offer are: 1) as individuals move through their lives or careers they encounter situations where tools taught in the ELP could be practiced/used and 2) as an individual progresses through their career there may be more of an emphasis on developing “soft skills” such as communication and decision-making abilities.

There were no strong relationships between tool use, usefulness, and education level (Table 6). Three of the Pearson correlation results were positive for CMT (0.042) and FACT MOD (0.002) use and FACT MOD usefulness (0.025) indicating that tool use and usefulness increased with each successive education level attained (from Bachelor’s to Master’s and from Master’s to PhD/JD/MD). Negative correlation results for LDM, MMT, and EM use and LDM, MMT, CPR, CMT, and EM usefulness indicated decreased use and utility with higher education attainment. Mainly, those with higher education used the tools less often and therefore found the tools less useful than those individuals with less education.

Table 6. Pearson correlation results for tool use and participant determined usefulness based on participant gender, age, and education level. Negative correlation results for gender indicate that females are more likely to report the given result over men. Results significant at the 0.05 level*, 0.01 level**, or the <0.001 level*** are indicated with asterisks.

	Tools	Gender	Age	Education
Use	Labeled Decision Making	-0.325	0.215	-0.301
	Meeting Managements Tools	-0.479**	0.368*	-0.237
	Content Process Relationship	-0.525**	0.240	-0.100
	Change Model Theory	-0.252	0.357*	0.042
	FACT Model	-0.092	0.161	0.002
	Emotional Maturity	-0.196	0.128	-0.146
Usefulness	Labeled Decision Making	-0.335	0.232	-0.256
	Meeting Managements Tools	-0.276	0.368*	-0.301
	Content Process Relationship	-0.360*	0.218	-0.056
	Change Model Theory	-0.282	0.479**	-0.172
	FACT Model	-0.100	0.115	0.025
	Emotional Maturity	-0.181	0.202	-0.158

Over half of the survey participants (Figure 1 and 2) believe that their ability to communicate has greatly improved and their ability to make decisions has moderately improved after participating the in the ELP. The perceived increase in ability to communicate and make decisions could potentially be attributed to actual tool use as the tools were developed to improve communication and decision-making processes for individuals exercising leadership.

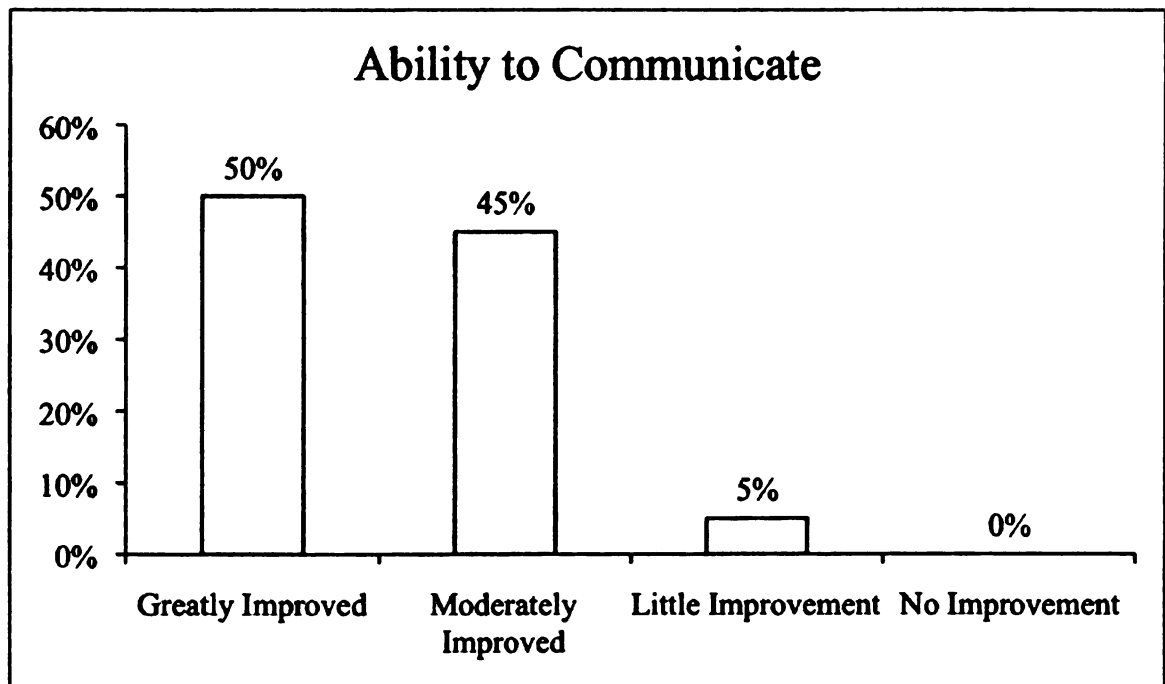


Figure 1. Perceived change in survey participant's ability to communicate with others since participating the ELP.

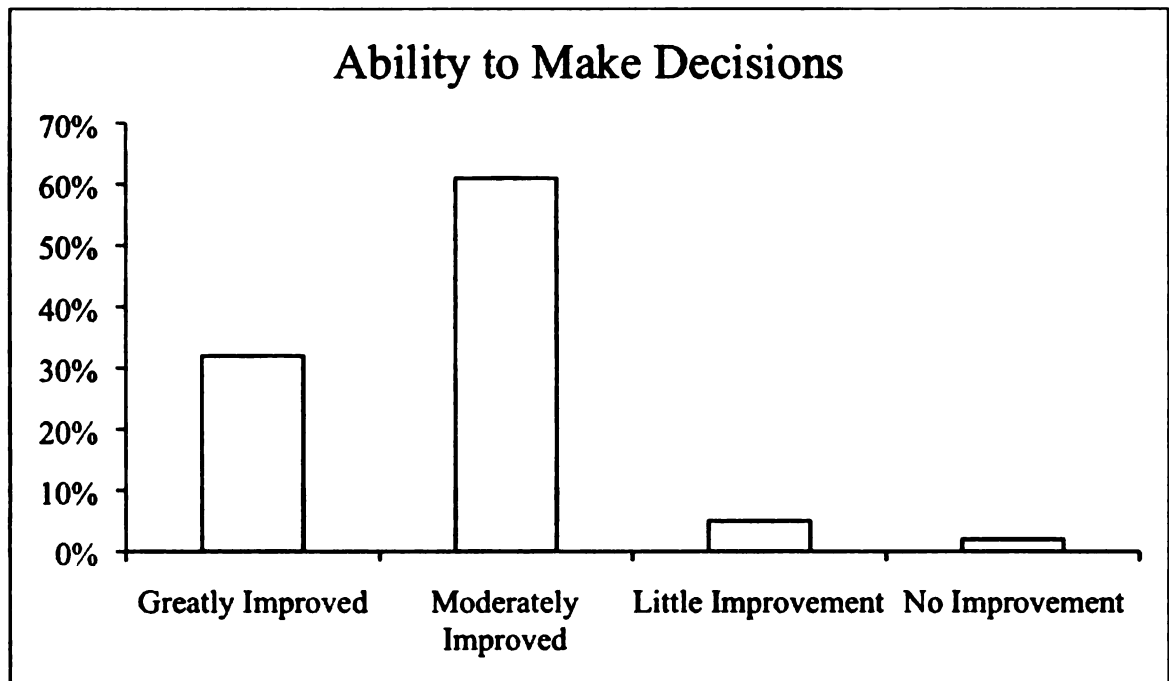


Figure 2. Perceived change in survey participant's ability to make decisions since participating the ELP.

Gender and age showed negative relationships with test results for perceived ability to communicate and perceived ability to make decisions. Women were more likely to report their ability to communicate and make decisions improved after participating in the ELP (Table 7). Only gender versus ability to make decisions test results showed a strong positive relationship at the $p=0.05$ level. As age increased, individuals were less likely to report that their ability to communicate and make decisions improved after participating in the ELP (Table 7). All Pearson correlation results based on education level were positive indicating that improvement in perceived communication ability and decision-making ability increased as education level increased. Results also showed strong relationships between the perceived ability to communicate and emotional maturity but no significant relationship between emotional maturity and perceived ability to make decisions (Table 8).

Table 7. Person correlation results of participant's perception of their ability to communicate and make decisions based on gender, age, and education level. Negative correlation results for gender indicate that females are more likely to report the given result over men. Results significant at the 0.05 level*, 0.01 level, or the <0.001 level*** are indicated with asterisks.**

	Gender	Age	Education
Ability to Communicate	-0.157	-0.169	0.343*
Ability to Make Decisions	-0.379*	-0.063	0.164

Table 8. Person correlation results of participant's perception of their ability to communicate and make decisions versus tool use and usefulness. Strong relationship between variables at the 0.05 level*, 0.01 level, or the <0.001 level*** are indicated with asterisks.**

	Emotional Maturity Tool	
	Use	Usefulness
Ability to Communicate	0.423**	0.372*
Ability to Make Decisions	0.261	0.238

Information Sharing

A relatively large proportion of survey respondents (63.9%) reported that they learned about the ELP from their supervisor (Table 9). Other individuals learned about the program through advertisements, co-workers, and past participants. All survey participants (with the exception of one individual) reported that they shared the program information with others. When asked how many individuals they have shared program information with, 30.6% of survey participants reported that they shared the information with approximately 5-9 people and another 30.6% reported that they shared the information with 20 or more people (Table 9). The additional comments section of this question revealed that the individuals who shared the information with 20 or more people did so by sharing the information at work meetings and non-work related meetings (i.e.,

at church), assisting the instructors with teaching the course, or by having the course instructors from the ELP teach a course outside of work.

Table 9. How individuals learned about the Emerging Leaders Program and the number of individuals they shared program information with after participating in the program. Numbers with the asterisk are a breakdown of a percentage from the ‘other’ category.

Information Sharing	Category	Percent
How did you learn about the ELP?	Supervisor	63.9
	Co-work	13.9
	Advertisement	13.9
	Past Participant	5.6
	Others (*break down)	27.8
	HR Announcement*	20.0
	Upper Level Personnel*	40.0
	Interaction with program coordinators*	40.0
Did you share course information with others?	Yes	97.2
	No	2.8
Approx. how many individuals did you share the information with?	0-4	22.2
	5-9	30.6
	10-14	13.9
	15-19	2.8
	20 or more	30.6

One respondent indicated that they hired the ELP instructors, from the consulting firm Progress Associates, to teach a course but did not specify what course material they asked the instructors to deliver. The wide range of comments about how survey participants shared course information with others demonstrated the wide range of methods that participants used to share the tools taught in the ELP. Additionally, these results demonstrated the importance of personal or ‘word-of-mouth’ communication in sharing these tools. In the cases mentioned above, the course material moved beyond the boundaries of the classroom and the work setting; it was taken to committee meetings to share with other natural resource employees and into their community and personal lives.

A strong relationship between sharing the course information with co-workers and education level, employer type (government, state, tribal, or NGO), age, and gender

(Table 10) was evident. Individually, these results show that past ELP participants shared course information with specific groups of people (based on educational level, employer type, age, and gender) but collectively they demonstrate that past participants shared information with co-worker regardless of age, gender, and education level. On the other hand, Mueller et al. (2008) found that information exchange took place between individuals but the information was only transferred to selected individuals. Selection was based on identifying individuals that fishermen viewed as supportive, individuals with which participants may have a history of mutual support with, and/or individuals who intend on receiving a direct or indirect gain from sharing information (Mueller et al. 2008). Interestingly, physical proximity does not seem to have any bearing on whether past participants would share information or with whom they will share course information; in this study or that of Mueller et al. (2008). This may be due to that fact that participants from the ELP work non-competitively. That is, they work in groups or in teams toward a common goal for the mutual benefit of the group and the public for whom they serve. Alternatively, the survey participants in Mueller et al. (2008) were independent recreational charter captains. As such, they may be less likely to share with other charter captains that can potentially undercut their profits.

Table 10. Pearson correlation results for information sharing between the survey participant and co-workers, acquaintances, or individuals that are physically in close proximity to the past ELP participant. Results significant at the 0.05 level*, 0.01 level, or the <0.001 level*** are indicated with asterisks.**

Information Sharing	Category	Demographics			
		Education	Employ Type	Age	Gender
Who did you share information with?	Co-Workers	-0.372 *	-0.536**	0.354*	-0.425**
	Acquaintances	-0.415*	-0.060	-0.046	-0.298
	Proximity	-0.321	-0.261	0.019	-0.238

program tools or inquiries about how to approach or solve a problem based on education level, age, gender, or ethnicity. This finding indicated that ELP participants may not be viewed as a source of knowledge or as the ‘expert’ by their co-workers, after participating in the program. Although, this study did not examine the reason why, I could speculate that co-workers that have not participated in the ELP may not place a high value on the program and therefore not value the information that participants potentially possess as a result of participating in the program.

Alumni Networks

Over half of survey respondents (61.1%) indicated that they would be interested in participating in an alumni network. When asked if they believed an alumni network would help them utilize the tools they learned from the ELP, 47.2% of survey respondents answered ‘yes’. However, 41.7% of respondents answered ‘maybe or not sure’ (Table 11). Four responses in the additional comments section revealed that they were concerned about the time commitment that an alumni network would require. Although survey participants were interested in an alumni network, at the time of this survey, they appeared to have concerns as to whether they would be able to participate due to time constraints.

Table 11. Survey responses to participant interest in alumni networks.

Alumni Networks	Category	Percentage
Are you interested in an alumni network?	Yes	61.1
	No	19.4
Would an alumni network help you utilize the course tools?	Yes	47.2
	No	11.1
	Maybe	38.9
	Not sure	2.8

Responses to open-ended survey questions

The open-ended questions were used to specifically solicit information about the survey respondent's understanding of leadership after participating in the ELP as well as solicit opinions about the ELP curriculum and potential improvements to the curriculum. The first set of open-ended responses demonstrated participant's view or definition of leadership as of the day they completed the survey. A total of 37 survey participants offered a response to the question about whether their definition of leadership changed after participating in the ELP. Several responses (12) explicitly indicated that survey participants believed that their definition of leadership had changed as a result of participating in the ELP while others (12) believed that there was no change in their definition of leadership. Two (2) survey participants indicated that they were unsure if their definition of leadership changed. The remaining responses (9) to this question were unclear, as they did not provide an explicit answer (i.e., yes, no, or unsure) in their answer to the question. Despite whether participants believed their understanding of leadership changed, most respondents did indicate that they were able to take something away from the course and use it in their personal or professional lives. For example, some respondents indicated that although they don't believe their definition of leadership has changed, they have become more observant, communicate differently, are more self-aware, or their definition of leadership has been reinforced by participating in the program. The selected responses below are examples of responses that reflect an explicit yes or no to the question as well as examples of responses that were not explicit but they did give me indication of what the participant took away from the course.

Selected responses included:

Selected responses included:

My definition of leadership is continuing to change with life. Participating in the ELP was one of those experiences that accelerated some change. Leadership is thoughtful, decisive, listening inspired, action oriented, guided by goals and objectives of the organization.

A difficult question to fully answer but I think it has changed some. Clearly a leader must be fully engaged with all aspects of unit they are leading. This including understanding how communication is conducted among unit members, constantly improving business practices such as time management and accountability, constantly watching for likely external forces that will create chaos, and managing people through change. So a leader must lead by example and collaboration, be foresighted with a developed intelligence system to know events around the unit, must guide units not steer them, and enable unit members to be creative, always accepting the risk and responsibility of failure.

Not really. What happened through ELP strengthened my definition - added value to it, but it did not necessarily change it. I think other experiences than I have had through my job have had more to do with changing my definition than anything. In addition, observing others - good and not so good - has morphed my definition of leadership.

[I learned that] leadership can be learned, practiced and improved as opposed to being a trait.

The organization that I work for defines leadership very narrowly (as management) and does not recognize the 'soft skills' taught in the NRLP as vital leadership skills. By participating in the NRLP, I have been able to bring that larger definition back to the organization and incorporate it into my sphere of influence.

I don't believe that my definition has changed; however, I did learn some things about myself and how to interact with the world by going through the program.

Survey respondents found a variety of different aspects of the program to be the most enjoyable or least enjoyable. Some of the reoccurring responses for the best aspects of the course included: the mentoring component, interacting with others/networking, learning about one's self, and learning about leadership tools and how to use the tools.

Below are examples taken from survey participant responses:

I appreciated learning the array of tools to use in effective communication, meeting facilitation, and managing change/conflict. I also gained an impressive network of colleagues with whom I continue to communicate.

The best aspect was [my] mentoring relationship.

The best aspects for me were the copious examples of how the tools are used and work in the real world, which worked especially well when then accompanied by a class exercise to make the point.

[The best aspect of the program was] interaction with colleagues with similar professional backgrounds and roles (i.e. natural resources professionals).

The best aspect was that the training allowed you to interact with others from different agencies and work backgrounds.

[The course was] structured in manner that forces participants to focus solely on learning and takes away the "distractions" of job responsibilities. [It is also] conducted in an agency/employer neutral setting with participants from diverse settings. This enabled me to try new things and not be influenced by what others might think after the class [was] over.

The best aspect was the self discovery and learning how and why I respond to things (stress, conflict, etc.) the way that I do...because I now understand myself better, I can better communicate with others as well as seek to understand why others respond the way that they do. This process of self-discovery cannot be achieved through people telling you how to do things and not everyone moves at the same rate of self-reflection.

Relationships: I have maintained contact with many of the participants and have learned more from them than I will ever be able to repay. Lifelong Learning: the notion of lifelong learning has taught me that the glass is half full and I am in constant need of more information. Emotional Maturity: This aspect ties to lifelong learning but for me enabled me to tackle some of the tough aspects of my relationship to others and myself. Tools: Labeled Decision Making and Mgt. Tools have proven invaluable. Last having integration of multiple agencies/disciplines over many states was absolutely critical to the success of the class.

In addition to the theory and the materials of the concepts presented, the personal experiences of the course instructors, guest presenters and course attendees made the concepts more meaningful and put them in practical context.

In response to the portion of the question asking about the worst aspect of the course, participant responses in regards to the worst aspect of the course did not contain any common theme. The below examples of the responses that survey respondents gave in regards to worst aspects of the course:

The worst parts were the purely theoretical sections, with little tie to my real world. I do not include change models here, as the ideas there were very easy to see in action in everyday life.

A little bit too much emphasis on one approach to group decision-making (i.e., LDM). [It] would have been better to present variety of models.

The worst part was [there] wasn't a great deal of diversity in the sessions.

Discovering that my supervisor did not support or care to employ the new tools that I have learned.

The worst part was having the session end.

The worst part for me was the length of time away from home.

[The] long time commitment with uncertain gain.

Taking time out of a busy schedule.

I have not been able to successfully get a Western NRLP started [and] that this program is not available to more people.

I felt that the emotional intensity of few of the sessions were not appropriate for a course like this. Would have been better if course attendees interested in going more in-depth could have done so individually with the instructor(s) after the course.

Summary and Conclusions

Leading from any chair

When we think of leaders and leadership, historical figures that changed the course of history or individuals that lead movements capturing the hearts and minds of many people, a number of individuals such as Martin L. King, Jr., Nelson Mandela, Mahatma Gandhi, and Winston Churchill may come to mind when discussing people who are at the forefront of social and/or political movements (Vine et al. 2008). While individuals like Theodore Roosevelt and Rachael Carson may come to mind when thinking of leaders of national conservation or environmental movements in the US.

Leadership training and/or instructional materials are offered in a variety of forms (seminars, fictional and non-fictional literature, research, peer reviewed literature) and disciplines such as industry, business, policy, and natural resources (Burns 1978, Daft 1999, Du Pree 1992, Kellerman 2004, Organ et al 2006). The prevalence of leadership training courses, and literature is a testament to society's interest in identifying and cultivating leadership tools not only in government and the workplace but also in communities, homes, churches, and shared-interest organizations (Daft 1999). The desire to cultivate tomorrow leaders is also shared in the natural resource fields and is demonstrated through the creation and execution of leadership training program such as the Emerging Leaders Program.

Overall, the results of this study showed that individuals that participated in the ELP believed that the tools taught in the curriculum changed their perception of leadership as well as equipping them with tools that could be used in and outside of the work place. With this program and any other training program, its purpose is to equip

and empower individuals to make a difference, to themselves, their family, their community and their place of work. Now that a select number of natural resource professionals have been equipped with the tools to continue their development as leaders, one can only hope that they will utilize what they have learned as a springboard to improve the sustainability of our natural resources.

“I have a dream...” –Martin L. King, Jr.

APPENDIX A

First Communication and Invitation Letter

Hello,

My name is Cecilia Lewis and I am a graduate student in the Fisheries and Wildlife Department at Michigan State University.

As part of my graduate studies, I am conducting a study of individuals that previously participated in the Natural Resources Leadership Program titled “Shaping Natural Resource Leadership Through the Emerging Leaders Program”. I’m contacting you based on your past participation in the Natural Resources Leadership Program (NRLP), now called the Emerging Leaders Program (ELP), and I would like to ask you a few questions about your experience **after** participating in this program.

In the next few days you will receive an email with a link to a survey at this same email address. I would greatly appreciate it if you could take a few moments to complete the survey. By doing so you will help ensure that I have the best information possible. Your participation in this study is strictly confidential and your confidentiality will be protected to the maximum extent allowable by law.

If you have any questions about this project please feel free to contact me at lewiscec@msu.edu or 517-763-7319.

Thank you in advance for your cooperation.

Sincerely,

Cecilia M. Lewis
Fisheries and Wildlife Dept.
Michigan State University
lewiscec@msu.edu
517-763-7319

APPENDIX B

Second Communication and Web Link to Survey

November 28, 2008

Good afternoon,

A few weeks ago you received an email from me inviting you to participate in the "Shaping Natural Resources Leadership Through the Emerging Leaders Program" survey. Below you will find the link to the survey I referred to in my last email. Please follow the link and fill out the survey based on your participation in the Natural Resource Leadership Program (NRLP). Thank you in advance for your help with my project and I look forward to your responses.

Link: "Shaping Natural Resource Leadership Through the Emerging Leaders Program" survey.

Sincerely,

Cecilia M. Lewis
Fisheries and Wildlife Dept.
Michigan State University
13 Natural Resources
East Lansing, MI 48824

lewiscec@msu.edu
517-763-7319

APPENDIX C

Survey Consent Letter

Welcome to the electronic survey for the natural resources leadership study “Shaping Natural Resource Leadership through the Emerging Leaders Program.”

You are being asked to complete a survey about your beliefs and opinions in regards to the Emerging Leaders Program (ELP), formally known as the Natural Resources Leadership Program (NRLP). You were selected as a possible participant for this study because you participated in the Emerging Leaders Program.

The purpose of this survey is to investigate whether graduates of the Emerging Leaders Program (ELP), formally known as the Natural Resource Leadership Program (NRLP), perceive changes in their communication skills and decision- making methods. Specifically, we want to assess the extent to which skills taught in the program are useful to program participants in their respective organizations and identify which skills have been the most useful.

This survey should take approximately 15-20 minutes to complete. Any information you share in this survey will be kept strictly confidential. Your confidentiality will be protected to the maximum extent allowable by law. This survey is completely voluntary, and you may choose to not respond or to skip any question that you don’t want to answer. There are no known risks to you participating in this study. Although you will receive no direct benefits from participating in this research, you may find that doing so provides you the opportunity to explore and share your thoughts and experiences about your participation in the ELP. This research has potential long-term benefits for future ELP graduates. We hope to improve the curriculum and delivery of the ELP. By clicking the ‘next’ button, you indicate your voluntary consent to participate in this study.

If you have any questions or concerns about this survey, please feel free to contact Cecilia Lewis at 517-763-7319, lewiscec@msu.edu, or 13 Natural Resources, East Lansing, MI 48824.

If you have questions regarding your rights as a research subject, contact the Michigan State University Institutional Review Board at irb@msu.edu, 517-355-2180, or Michigan State University, Human Research Protection Program, 202 Olds Hall, East Lansing, MI 48824.

APPENDIX D

Third Communication, Survey Reminder and Thank You Letter

December 15, 2008

Dear Past NRLP Participants,

I'd like to thank you for submitting your responses to my survey (titled "Shaping Natural Resource Leadership Through the Emerging Leaders Program") for my master's research in the Fisheries and Wildlife Dept at Michigan State University.

If you have not had the opportunity to respond to the survey please click on the link below and you will be directed to the survey. If you prefer to fill out a paper version of the survey please print the pdf version of the survey and mail it to the address below. The survey closing date will be December 19, 2008.

Thank you for your help with my project and I look forward to your response.

Survey Link: ["Shaping Natural Resource Leadership Through the Emerging Leaders Program"](#)

Note: Your participation in this study is strictly confidential and your confidentiality will be protected to the maximum extent allowable by law. A consent form explaining your rights is attached.

Sincerely,

Cecilia M. Lewis
Fisheries and Wildlife Dept.
Michigan State University
13 Natural Resources
East Lansing, MI 48824

517-763-7319
lewiscec@msu.edu

Appendix E

Survey Instrument

Shaping Natural Resources Leadership Through the Emerging Leaders Program

I. Program Specific Questions—This portion of the survey includes questions about the skills and tools presented in the Natural Resources Leadership Program (NRLP).

1. Which of the following skills/tools/concepts from the NRLP have you used (or incorporated into your decision making process) since participating in the NRLP and how often have you used them?

	Frequently	Somewhat frequently	Occasionally	Never
Labeled Decision Making (LDM)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meeting Management Tools (MMT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Content, Process, Relationship (CPR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change Model Theory (CMT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FACT Model (Personality typing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emotional Maturity (EM)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other tools not listed here	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Which skills, tools, or concepts have you found to be useful? How useful have they been?

	Very Useful	Somewhat Useful	Slightly Useful	Not useful at all	Never used tool
Labeled Decision Making (LDM)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meeting Management Tools (MMT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Content, Process, Relationship (CPR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change Model Theory (CMT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FACT Model (Personality typing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emotional Maturity (EM)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other tools not listed here	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Has your ability to communicate with others (co-workers, supervisors, family, friend, etc.) changed since participating in the NRLP?

- ☐ My ability to communicate has greatly improved
- ☐ My ability to communicate has moderately improved
- ☐ There was little improvement in my ability to communicate
- ☐ There was no improvement in my ability to communicate
- ☐ Other (please specify)

4. Has your ability to make decisions (in a management setting or team setting) changed since participating in the NRLP?

- ☐ My ability to make decisions has greatly improved
- ☐ My ability to make decisions has moderately improved
- ☐ There was little improvement in my decision making ability
- ☐ There was no improvement in my decision making ability

5. How relevant are the skills/tools/concepts taught in the NRLP to your current position?

- ☐ Very relevant
- ☐ Somewhat relevant
- ☐ Slightly relevant
- ☐ Not relevant at all

II. Open-ended Program Specific Questions—The questions in this section are open-ended questions. You are free to communicate your thoughts and opinions as they relate to the question being presented. Please be as descriptive as possible.

1. Has your definition of leadership changed since participating in the NRLP? If so, how has your definition of leadership changed?
2. What was the best aspect of the NRLP course? What was the worst part?
3. What can be changed about the curriculum to improve the NRLP?
4. What components can be added to the NRLP curriculum (called the Emerging Leaders Program) to improve leadership training?

III. Information Sharing—The following questions used to determine have much information from the NRLP course you shared with individuals that did not participate in the course as well as what information was shared.

1. How did you learn about the NRLP? (Please check all that apply.)

- ☐ Supervisor
- ☐ Co-workers
- ☐ Advertisements (fliers, email, or website)
- ☐ Research on your own
- ☐ Past participants
- ☐ Other (please specify)

2. Have you shared any of the skills/tools/concepts from the NRLP with other individuals?

- ☐ Yes
- ☐ No

3. Approximately how many people have you shared the skills/tools/concepts taught in the NRLP with others?

- ☐ 0-4
- ☐ 5-9
- ☐ 10-14
- ☐ 15-19
- ☐ 20 or more

4. How did you decide which individuals to share course information with? (Please check all that apply.)

- ☐ The individual(s) were part of a work group/team that I was also a part of
- ☐ The individual(s) and I work for the same agency/division/branch
- ☐ The individual(s) were in close proximity to me (near my physical work space)
- ☐ The individual(s) and I have known each other (been acquainted with one another) for several years

- ☐ The individuals(s) and I share similar career and/or personal goals and objectives
- ☐ Other (please specify)

5. Have your co-workers, supervisors, family members, acquaintances, etc. approached you with questions about how to address an issue or problem based on your participation in the NRLP?

- ☐ Yes
- ☐ No
- ☐ Not sure (please explain)

IV. Alumni Networks—The following questions are in regards to a NRLP alumni network. An alumni network would consist of past NRLP participants who are interested in having a forum to share personal experiences using the skills/concepts/tools taught in the program. The Alumni network would also be a forum for discussing ways to approach a variety of management and personnel challenges in your respective agency.

1. Are you interested in participating in an alumni network?

- ☐ Yes
- ☐ No
- ☐ Maybe (please explain)

2. Would an alumni network help you utilize the skills/tools/concepts learned in the NRLP?

- ☐ Yes
- ☐ No
- ☐ Maybe
- ☐ Not sure

3. If you answered maybe or not sure to the last question, please explain your answer.

4. How much time are you willing to invest into an alumni network? A few hours...

	1-3 hours	4-6 hours	7 hour or more
Weekly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bi-Weekly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monthly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bi-Monthly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quarterly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Once or twice per year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

V. Demographics—This page consists demographic questions.

1. Please select your highest level of education?

- ☐ High school diploma (or GED equivalent)
- ☐ Some college course work
- ☐ Associates degree (two year college degree)
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ PhD, JD, MD
- ☐ Other (please specify)

2. Which of the following best describes your employer?

- ☐ Federal agency
- ☐ State agency
- ☐ Tribal/First Nations agency
- ☐ Academic institution
- ☐ Non-governmental agency
- ☐ Consulting agency
- ☐ Other (please specify)

3. Who is your current employer?

4. What is your current position?

5. Please indicate your age by selecting one of the choices below.

- ☐ Under 25 years of age
- ☐ 25-34 years of age
- ☐ 35-44 years of age
- ☐ 45-59 years of age
- ☐ Over 60 years of age

6. Please indicate your gender?

- ☐ Male
- ☐ Female

7. Please indicate your ethnicity and/or race in the space below. If you are of mixed heritage, feel free to indicate that in the space provided. (For the purposes of this survey indicate the race and/or ethnicity you most identify with.)

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