



12-1996

A Study of Students Involved in a Leadership Development Program, "Excellence in Leadership", at Grand Valley State University

Paul McKimmy
Western Michigan University

Follow this and additional works at: <https://scholarworks.wmich.edu/dissertations>



Part of the Educational Leadership Commons, and the Higher Education Commons

Recommended Citation

McKimmy, Paul, "A Study of Students Involved in a Leadership Development Program, "Excellence in Leadership", at Grand Valley State University" (1996). *Dissertations*. 1715.

<https://scholarworks.wmich.edu/dissertations/1715>

This Dissertation-Open Access is brought to you for free and open access by the Graduate College at ScholarWorks at WMU. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks at WMU. For more information, please contact wmu-scholarworks@wmich.edu.



**A STUDY OF STUDENTS INVOLVED IN A LEADERSHIP
DEVELOPMENT PROGRAM, "EXCELLENCE IN
LEADERSHIP", AT GRAND VALLEY
STATE UNIVERSITY**

by

Paul McKimmy

**A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Education
Department of Educational Leadership**

**Western Michigan University
Kalamazoo, Michigan
December 1996**

**A STUDY OF STUDENTS INVOLVED IN A LEADERSHIP
DEVELOPMENT PROGRAM, "EXCELLENCE IN
LEADERSHIP", AT GRAND VALLEY
STATE UNIVERSITY**

Paul McKimmy, Ed.D.

Western Michigan University, 1996

This study sought to describe the leadership behaviors of students involved in the Excellence in Leadership Program (ELP) at Grand Valley State University. Additionally, it sought to determine how ELP influences the leadership behaviors of its members. The Leadership Practices Inventory - Student Version (LPI) was used to measure the leadership behavior frequencies of five groups of students at the beginning and end of the 1995-1996 academic year. Non-ELP-members, newly registered ELP members, and ELP members at three different achievement levels (Bronze, Silver, and Gold) were compared. The behaviors measured by this instrument are: Enabling Others to Act, Modeling the Way, Inspiring a Shared Vision, Encouraging the Heart, and Challenging the Process.

It was concluded that New-ELP-members exhibit the leadership practices Inspiring Shared Vision, Encouraging the Heart, and Challenging the Process more frequently than the general student population.

A second finding related to sex and leadership behaviors. These results were

contrary to expected conclusions. Among the undergraduate GVSU student body, women exhibited more frequent leader behaviors than men for Enabling Others to Act, Modeling the Way, and Encouraging the Heart. Similarly, among Bronze level ELP members, women exhibited more frequent leader behaviors for Modeling the Way, and Encouraging the Heart.

The last conclusion concerned leader behavior and class standing. Among Non-ELP-members, Juniors exhibited less frequent leader behaviors than Freshman or Seniors. This both supported and contrasted expected findings. As an indicator of increased development, it is intuitive that Juniors would practice leader behaviors less frequently than Seniors and counter-intuitive that Juniors practice those behaviors less frequently than Freshman.

No conclusions were drawn regarding the relationship between participation in ELP and leader behaviors; ELP achievement levels and leader behaviors; or continuation in the ELP program and leader behaviors.

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700 800/521-0600

UMI Number: 9715999

UMI Microform 9715999
Copyright 1997, by UMI Company. All rights reserved.

**This microform edition is protected against unauthorized
copying under Title 17, United States Code.**

UMI
300 North Zeeb Road
Ann Arbor, MI 48103

Copyright by
Paul McKimmy
1996

ACKNOWLEDGMENTS

There are many people who served as supports, mentors, and models in the pursuit of this project. It is safe to say that such an undertaking could not be completed without the help of such a positive support network. I'd like to thank my father and mother, Dr. James McKimmy and Lou Ann McKimmy, for being my role models, advocates, and emotional supports for as long as I can remember. Thanks to Dr. Gene Thompson for assisting me with a running start and to my committee, Dr. Charles Warfield, Dr. Uldis Smidchens, and Dr. H. Bart Merkle, for their counsel and assistance.

There are several people at Grand Valley State University whose assistance was readily offered and indispensable. Thanks go to Lynn Blue and Bruce Tweddale for their help in identifying my random student population. Jay Cooper has my gratitude for ongoing consultation and assistance regarding the ELP program which he directs. Lastly, I want to thank my incredible friend and wife Melanie for her unfaltering love, patience, support, and understanding.

Paul McKimmy

TABLE OF CONTENTS

ACKNOWLEDGMENTS.....	ii
LIST OF TABLES.....	vii
CHAPTER	
I. INTRODUCTION.....	1
Background.....	1
Purposes of the Study.....	2
Significance of the Study.....	3
The Excellence in Leadership Program at Grand Valley State University.....	4
Overview.....	4
Level Achievement Requirements.....	7
Statement of the Hypotheses.....	9
II. RATIONALE FOR THE STUDY BASED ON LITERATURE.....	11
Leadership Behaviors.....	11
Student Leadership Training Formats.....	15
Rationale for Hypotheses.....	18
The Relationship Between Initial Leader Behaviors and Program Entry.....	18
The Relationship Between ELP Achievement Level and Leader Behaviors.....	20

Table of Contents—continued

CHAPTER

The Relationship Between Program Participation and Behavior Change.....	22
The Relationship Between Program Continuation and Behavior Change.....	23
The Relationship Between Sex and Leadership Behavior.....	24
The Relationship Between Class Standing and Leadership Behavior.....	25
III. METHODOLOGY	27
Sample Composition and Selection.....	30
Instrumentation.....	31
Leadership Practices Inventory.....	31
LPI - Student Version	33
Data Collection Procedures	34
Pilot Study	35
ELP Orientation and Final Reflection.....	36
Telephone Contacts and Mailings	37
Data Analysis.....	40
IV. PRESENTATION AND ANALYSIS OF THE DATA.....	44
Description of the Samples	44
Pretest Sample.....	44
Posttest Sample.....	48
The Relationship Between Initial Leader Behaviors and Program Entry.....	50

Table of Contents—continued

CHAPTER

The Relationship Between ELP Achievement Level and Leader Behaviors	53
The Relationship Between Program Participation and Behavior Change	55
The Relationship Between Program Continuation and Behavior Change	58
The Relationship Between Sex and Leadership Behavior.....	60
The Relationship Between Class Standing and Leadership Behavior	62
V. CONCLUSIONS AND RECOMMENDATIONS	67
Research Summary	67
Supported Hypotheses	69
Unsupported Hypotheses	72
Limitations of the Study.....	73
Recommendations for Further Research	74
APPENDICES	
A. Western Michigan University Human Subjects Institutional Review Board Approval Letter	77
B. Grand Valley State University Human Subjects Review Committee Approval Letter	79
C. Demographic Data Sheet.....	81
D. Pretest Administration Guidesheet	83
E. Posttest Administration Guidesheet	86
F. Pretest Telephone Script.....	89

Table of Contents—continued

APPENDICES

G. Posttest Telephone Script.....	91
H. Follow-up Telephone Script	93
I. Second Follow-up Telephone Script.....	95
J. Pretest Cover Letter to Students	97
K. Follow-up Cover Letter to Students.....	99
L. Posttest Cover Letter to Students.....	101
BIBLIOGRAPHY.....	103

LIST OF TABLES

1.	Pretest Sample Sizes and Response Rates.....	45
2.	Pretest LPI Scores for All Sampled Students.....	47
3.	Posttest Sample Sizes and Response Rates.....	49
4.	Pretest LPI Scores for Non-ELP-Members and New ELP Members.....	51
5.	Mean Pretest LPI Score Ranks by ELP Achievement Level.....	54
6.	LPI Score Changes and Standard Deviations by ELP Level.....	56
7.	Mean LPI Score Change Ranks by New ELP Level.....	59
8.	Mean Ranks of Pretest LPI Scores by Sex.....	61
9.	Mean LPI Score Ranks by Class Standings.....	64
10.	Challenging the Process Scores of Non-ELP-Members.....	66
11.	Summary of Conclusions.....	68

CHAPTER I

INTRODUCTION

Background

An increasing number of educators are proponents of leadership development education. Over 600 colleges and universities offer leadership development programs modeled on a variety of structures (Hirschorn, 1988; Freeman, Gregory & Clark, 1986; Gordon & Sindon, 1989). Schandley (1989, p. 59) states that "Perhaps no movement within higher education has attracted more attention from observers of our colleges and universities than the current focus on enhancing leadership development opportunities for students." Many authors concur with Schandley who feels that leadership development courses within academic disciplines and student affairs have become the rule rather than the exception.

Anthony-Gonzalez and Fiutak (1981), cite three factors that make it important to evaluate student leadership programming. The authors state that pressure from the student personnel profession itself is exerted to document outcomes of student development strategies. Secondly, they state that feedback and evaluation are part of all good management systems. Lastly, demonstrated program outcomes are necessary in determining support for programs.

The popularity of collegiate leadership development programs raises similar concerns about the programs we offer to students. Are our training formats effective? Does participation in a leadership development program change students' leadership behaviors? Are university dollars spent effectively on these programs? An investigation into the relationship between Excellence in Leadership program (ELP) participation and student leadership behavior at Grand Valley State University could begin to provide answers to these questions and suggestions for effectiveness in leadership training.

Purposes of the Study

The purposes of this study are two-fold. They are: (1) to describe the leadership behaviors of students involved in ELP at Grand Valley State University, and (2) to determine how ELP influences the leadership behaviors of its members.

This study was guided by the following three research questions: (1) What do the leadership behaviors of ELP members look like at each level of achievement?; (2) How do ELP program members' leadership behaviors differ, if at all, from Non-ELP-members?; and (3) What relationship exists between ELP participation and members' leadership behaviors?

Significance of the Study

No research has yet been conducted regarding the ELP program. Because leadership training programs, including ELP, represent a significant budget expenditure for universities, it would be beneficial to know more about their impact on those who participate. This study will provide an initial reference for evaluating training programs with formats similar to ELP's.

Schoenberg (1990), an experienced education consultant, describes a need for leadership training programs much like ELP. He writes that "If we want informed, skillful, and responsible leadership, we have to pay attention to the development of those qualities in people who lead, wherever they are in the campus community." He advocates that institutions become responsible for developing their own leaders by identifying current leaders, predicting who the next leaders will be, and identifying those they would like to encourage. Further, Schoenberg feels that universities should create a systematic plan to provide these individuals with the skills and awareness required to lead -- in short, a leadership development program.

The results of this study are expected to contribute to the literature in several ways. First of all, it will provide an in-depth understanding of the impact of the Excellence in Leadership Program on Grand Valley students. This is important in considering plans for the development of our future leaders.

Secondly, this study will provide an evaluative measure of the eclectic training format represented by the ELP program. Because other programs which utilize similar

structures are in place at other universities (Freeman, 1986; Rockingham, 1990) it is important to understand the outcomes of such initiatives. This study may be useful to other universities considering implementation of leadership training programs. The results will aid in selecting a delivery format if an eclectic approach similar to the ELP program is under consideration.

Anthony-Gonzalez and Fiutak (1981), speaking of evaluating student leadership programs, stated that "the ability to document results as well as the methodologies employed is critical. The methodologies that were successful at one location should be replicated at another" (p. 189). This viewpoint is shared by the researcher. It supports the idea that an evaluation of ELP could provide useful planning information for other institutions.

The Excellence in Leadership Program at Grand Valley State University

Overview

The Excellence in Leadership Program is a student leadership development program which began at Grand Valley State University in 1989. It is designed to "enhance the development of student leadership skills and personal growth." (Cooper, 1994, p. 1). The program is a student organization sponsored and coordinated by the Grand Valley State University Student Life Office.

The Excellence in Leadership Program, also known simply as "Excellence in Leadership" or "ELP", is a multifaceted initiative involving several approaches to

leadership development. Over the course of ELP's existence, over 200 students have successfully completed at least one level in the program. Its format has changed slightly from year to year, however the current format consists of community service, wholeness programming workshops, individual excellence workshops, open forum participation, and membership or leadership in other student organizations. By completing a set of training requirements, students earn Bronze, Silver, Gold and Diamond levels of achievement. The development of the Diamond level is relatively recent and is based on an individualized plan. It is therefore, not a part of this study.

Any Grand Valley student can register for the ELP program by attending an orientation in a Fall semester and committing themselves to completing the requirements for Bronze level. For purposes of this study, ELP Program members are defined as Grand Valley State University students who were registered as members during the 1995-1996 academic year. New ELP members, a subgroup of members, are defined as all students who registered as an Excellence in Leadership Program member for the first time at the ELP Orientation session during September of 1995. These students had no previous affiliation with the Excellence in Leadership Program. Finally, Non-ELP-members include any undergraduate students who were not registered with the Excellence in Leadership Program during the 1995-1996 academic year and had no previous affiliation with the ELP program.

Participation in a community service project is required at the Bronze and Silver levels. At the Gold level, students independently coordinate a community

service project. Grand Valley provides resources for developing these projects through the Student Organization and Volunteer centers.

Wholeness programs include any Grand Valley sponsored educational session which matches an area from the wholeness model. This model is an "experiential learning model created specifically for Grand Valley State University" (Staff, 1989). It includes nine areas targeted for student development: intellectual, environmental, physical, cultural, emotional, spiritual, ethical/moral, vocational, and social programming. ELP Program members are required to attend a program in each of these areas for every level of achievement.

Individual excellence workshops are offered each week of the academic year and are designed to benefit the members and leaders of student organizations. Attendance at a workshop counts toward all levels of achievement in the ELP program. Workshops are typically presented by professional university staff, students working on the Gold level of achievement, or a cooperative team of both. Topical examples include goal setting, volunteerism, transformational leadership, peer pressure, publicity, multiculturalism, motivation, servant leadership, team building, public speaking, and communication.

Open forums are sponsored monthly by campus departments and organizations. They are designed to promote the discussion of current issues and institutional decisions. Attendance at one open forum is required at each level of ELP Program achievement.

There are dozens of student organizations registered at Grand Valley State University. At the Bronze level of achievement, ELP members are required to participate in a student organization as a member. At the Silver and Gold levels, members must "hold a significant leadership position on campus" (Cooper, 1994, p. 7). This is interpreted as a titled officership in a student organization, a responsibility intensive job (such as a Resident Assistant), or a leadership position in a local community organization.

Level Achievement Requirements

The requirements to achieve Bronze level in the ELP program are: Participation in a Grand Valley State University student organization or community group; attendance at eight individual excellence workshops; participation (minimum five hours) in a community service project; attendance at one Open Forum; attendance at one program in each of the nine Wholeness areas; and a completed worksheet detailing the above requirements. For purposes of this study, Bronze level students were defined as Grand Valley State University students who registered as an ELP Program member during the 1995-1996 academic year and who had completed only the requirements for Bronze level achievement at registration. New Bronze level students include any ELP member who began the year as a new registrant and completed the requirements for Bronze level within the 1995-1996 academic year.

In order to achieve Silver level in the ELP program, a student must complete the following: attendance at the Fall Leadership Conference; maintenance of a significant leadership position on campus; attendance at eight additional individual excellence workshops; participation (minimum five hours) in a community service project; attendance at one Open Forum; attendance at one program in each of the nine Wholeness areas; and a completed worksheet detailing the above requirements. This study defines Silver level students as any Grand Valley State University student who registered as an ELP Program member during the 1995-1996 academic year and who had completed only the requirements for Bronze and Silver level achievement at registration. New Silver level students are defined as those who began the year as Bronze level students and completed the requirements for Silver level within the 1995-1996 academic year.

A student may earn the Gold level of achievement through: maintaining a significant leadership position on campus; attendance at one Open Forum; coordination of a community service project (minimum 10 hours); attendance at one program in each of the nine Wholeness areas; service of one term on a University-wide committee; development and presentation of an Individual Excellence workshop or Fall Leadership Conference session; and a completed worksheet detailing the above requirements. This study defines Gold level students as any student who registered as an ELP member during the 1995-1996 academic year and who had previously completed the requirements for Gold level achievement. New Gold level students

were defined as those who began the year as Silver level students and completed the requirements for Gold level within the 1995-1996 academic year.

Statement of the Hypotheses

This study addressed six hypotheses. They are stated conceptually here; their rationales are discussed in Chapter II; finally they are operationalized in Chapter III.

The six hypotheses:

1. The ELP Program attracts students who exhibit more frequent leadership behaviors than those who are not attracted to the program.
2. ELP members at higher levels of accomplishment exhibit more frequent leadership behaviors than those at previous levels.
3. Participation in the ELP program (completion of an achievement level) creates greater increases in leadership behaviors than non-participation.
4. Continuation in the ELP program is related to increases in members' leadership behaviors.
5. Men and women at Grand Valley State University exhibit no differences in leadership behaviors.
6. Class standing at Grand Valley State University is related to frequency of leadership behaviors.

The Leadership Practices Inventory - student version (LPI), the instrument used in this study, was based on the research of Kouzes and Posner (1987). The

authors concluded that leadership is "an observable, learnable set of practices" (Kouzes & Posner, 1987, p. 13). Five practices were found to be common themes in Kouze's and Posner's (1987) research on leaders' personal best experiences. For the purposes of this study, leadership behaviors were defined as the five practices identified in this research -- Enabling Others to Act, Modeling the Way, Inspiring Shared Vision, Encouraging the Heart, and Challenging the Process.

The independent variable in this study was level of achievement in the ELP program. This was used to partition students into five categories: no program involvement (or Non-ELP-member), New-ELP-member, Bronze level, Silver level, and Gold level. An ELP member's achievement level during September was referred to as their initial achievement level. Their achievement level completed by April 1996 was referred to as their new level of achievement.

The dependent variables in this study are student leadership behaviors. These are defined as the frequency in which a student exhibits leadership behaviors. The dependent variables are measured as scores in each of five behavioral categories on the Leadership Practices Inventory - student version (Enabling Others to Act, Modeling the Way, Inspiring a Shared Vision, Encouraging the Heart, and Challenging the Process).

CHAPTER II

RATIONALE FOR THE STUDY BASED ON LITERATURE

Leadership Behaviors

Leadership is a concept which has been discussed since ancient times. There are many definitions and concepts of leadership. These concepts include: leadership as a focus of group process; as personality and its effects, as the art of inducing compliance, as the exercise of influence, as a power relation, as an instrument of goal achievement, and as action or behavior (Bass, 1981). This study deals specifically with leadership as a set of behaviors.

House and Mitchell (1974) identify four types of leadership behaviors. These include supportive leadership, directive leadership, participative leadership, and achievement-oriented leadership. Supportive leadership includes giving consideration to followers' needs, displaying concern for their welfare, and creating a friendly work climate. Directive leadership encompasses initiating work structure through delivering expectations, specific guidance, scheduling and coordinating. Participative leadership consists of consulting followers, acknowledging the value of follower opinions, and incorporating them into decisions. Achievement-oriented leadership includes setting challenging goals, seeking performance improvements, and emphasizing high

performance expectations. House and Mitchell state that the impact of leadership behavior is dependent on the nature of the task, competence of followers, confidence of followers, and followers' needs for achievement and autonomy.

Bass (1981) describes the emergence of two leadership behavior constructs in the literature - consideration and initiation of structure. Consideration describes the extent to which a leader exhibits concern for the welfare of the other members of the group. Initiation of structure refers to the extent to which a leader initiates group activity, organizes it, and defines the way work should be done. Both are extremely similar to the behaviors described by House and Mitchell.

Kouzes and Posner (1987) researched "personal best" cases of a variety of leaders. In these cases, leaders described the instances when they "set their own individual leadership standard of excellence" (p. xx). The authors make a strong argument for viewing leadership as a set of behaviors. In their words, "leaders do exhibit certain distinct practices when they are doing their best. And this behavior varies little from industry to industry, profession to profession." (p. xxi). Kouzes and Posner found five constructs of leader behavior which formed a new leadership model based on leader behavior. These five constructs were termed Challenging the Process, Inspiring a Shared Vision, Enabling Others to Act, Modeling the Way, and Encouraging the Heart.

Challenging, or Challenging the Process, describes leader behavior directed toward confronting and changing the status quo and taking calculated risks. In their

research on personal best cases, Kouzes and Posner found that leaders talked about radical departures from the organization's past. According to the authors, leadership creates a new way of life by fostering change, taking risks and accepting responsibility for making it happen. In Kouzes and Posner's research, leaders viewed their personal bests as "adventures into new territory" (p. 33). The authors state that searching for new opportunities, experimentation, and risk taking are strategies for Challenging the Process.

Inspiring, or Inspiring a Shared Vision, describes leader action toward inspiring a shared vision among group members. The leader's vision expresses the organization's values and ideals. Kouzes and Posner found that the leaders they studied had a personal agenda, purpose, dream, goal or vision that guided their leadership efforts. The emphasis on the importance of a leader's vision is shared by Bennis and Nanus (1985) who write that "To choose a direction, a leader must first have developed a mental image of a possible and desirable future state of the organization." (p. 89). Kouzes and Posner suggest that this encompasses imagining ideal scenarios, communicating the leader's vision, and enlisting others in a common purpose.

Enabling, or Enabling Others to Act, refers to the set of leadership behaviors which encompass getting people to work together. Kouzes and Posner describe this leadership behavior in terms of building teams with spirit and cohesion, developing collaborative goals, and cooperative relationships with colleagues. They assert that leaders know that "they cannot do it alone" and that "mutual respect is what sustains

extraordinary group efforts" (p. 131). The leader must empower members by giving them responsibility and trust. Enabling is frequently accomplished by sharing power and information, fostering collaboration, and strengthening others.

Modeling, or Modeling the Way refers to the set of leadership behaviors which encompass consistency between words and actions. This is the method many leaders use to build credibility. Modeling is based on a leader's philosophy, set of values, and principles about what makes their organization unique. When the leader knows his or her values and lives them, those values give direction to all organizational decisions. Modeling behaviors include leading by doing, building commitment to new processes, and planning small wins (Kouzes & Posner, 1987).

Encouraging, or Encouraging the Heart, refers to the practice of visibly acknowledging members' contributions to the common vision. Encouragement should link performance with the rewards a leader gives. Three criteria apply to the implementation of this performance-reward integration: "make certain people know what is expected of them, provide feedback about performance, and reward only those who meet the standards" (p. 245). Through this practice, the leader helps others feel like winners, focusing their energies and motivation. Kouzes and Posner describe the behaviors associated with Encouraging the Heart as recognizing contributions and celebrating accomplishments (Kouzes & Posner, 1987).

Student Leadership Training Formats

Student leadership training takes a variety of forms at different institutions. In some instances, leadership education has been incorporated into the academic curriculum, in others it is offered as extracurricular activity. Training programs take the form of workshops, retreats, classes, hands-on experiences, and recognition in the form of a cocurricular transcript (Jones, Carson & Guy, 1979). The ELP program combines several of these approaches including retreats, workshops, mentorship, cocurricular transcripts and hands-on experience.

Leadership retreats are popular formats for student leadership training (Hirschorn, 1988; Freeman, Gregory & Clark, 1986; Gordon & Sindon, 1989). The ELP program includes a Fall Leadership Conference which is used both as a recruitment device and as a first step in the program. The Fall Leadership Conference is planned by a committee of students and a graduate assistant. It generally includes workshops on basic leadership skills, guest speakers, interactions with university administrators, team building activities, and multicultural exploratory experiences. This conference is offered annually to ELP members.

Wells (1988), a coordinator and facilitator for leadership retreats sponsored by the National Association for Campus Activities, describes a focused retreat planning model. Well's planning process involves five steps: assessing target group needs, developing ownership and advocacy for the retreat, establishing learning outcomes, designing the retreat format, and implementing the program. Wells feels that a retreat

can serve as a good beginning for teaching the skills and attitudes necessary in a leadership curriculum.

The ELP Program utilizes such a retreat to begin students' experiences in the program. The retreat is also used as a recruitment tool. A student planning committee, headed by a graduate assistant, coordinates an annual Fall Leadership Retreat in early October. At this retreat, students leave campus for an entire weekend. Members take part in activities to meet each other, practice working in teams, and learn about cultural differences. The retreat also includes workshops on basic leadership skills and interaction with university administrators.

Kelly and Caruso describe leadership workshops as brief, practically oriented sessions lasting a day or less (1981). ELP workshops take the form of individual excellence programs and wholeness programs. Kelly and Caruso describe several advantages to the workshop as a leadership tool. These include skills development orientation for immediate use, ease of replication for other populations, focus on practical application of leadership areas, and high potential for immediate impact on the leadership effectiveness of members.

Cosgrove (1988) points out that much of the material we teach to students in leadership development programs is centered on management as opposed to leadership. He cites decision-making, goal-setting, communication, time management, and delegation as examples of what we teach in student leadership development. He also points out that, while useful and necessary management skills, these topics do not

embrace the heart of current literature on leadership (Bennis and Nanus, 1985; Kouzes and Posner, 1987; Burns, 1978). Namely, Cosgrove believes our programs should concentrate on vision, utilization of resources, needs of followers, risk taking, change, innovation, politics, and power.

The ELP program incorporates material from both management and leadership as Cosgrove describes them. On one hand, workshops with topics nearly identical to those described as "management" are offered (decision-making, goal-setting, communication, time management, and delegation). On the other hand, workshops on transformational leadership, servant leadership, and perceived leadership are offered alongside them. Hands on experience in other student organizations provide ELP members opportunities to put these learned concepts into action.

Many student leadership development programs include some form of mentoring. Zey (1991), speaking in a corporate context, describes mentoring functions in a hierarchy. This hierarchy begins with teaching and progresses through personal support, organizational intervention, and sponsorship.

Cosgrove (1986) describes a mentor in student development context as "a facilitator, a friend, a resource person" (p. 60). Several mentorship models are in use in student leadership development programs. Peer mentors can be recruited from nominations, applications, and references. In some cases these mentors undergo an interview screening process and training period. Mentors are matched with emerging

student leaders in order to establish a relationship as friend, attentive listener, advisor, and problem solver.

The mentorship component of student leadership development gave rise to another component which is utilized by the ELP program - the cocurricular transcript. Brown, Citrin, Pflum and Preston (1977) describe the first Student Development Transcript which developed into the idea of a cocurricular transcript. The original idea included assessment, mentoring, and a record of specific activities. In 1986, Cosgrove surveyed the membership of the National Association of Campus Activities on use of cocurricular transcripts. At that time, he found forty three institutions that used the idea in one form or another. Transcripts are utilized to record honors, activities, and jobs held (Cosgrove, 1986).

Experiential learning is encouraged by many authors. Poinsette (1981) describes active experience as an integral type of learning which provides personal involvement in skill development. This type of learning is encouraged in ELP by membership in other student organizations.

Rationale for Hypotheses

The Relationship Between Initial Leader Behaviors and Program Entry

The first hypothesis asserts that the ELP program attracts students who exhibit more frequent leadership behaviors than those who are not attracted to the ELP program. This hypothesis is based on the idea that involvement in a leadership

development program may be motivated by needs common to a specific type of student. Specifically, students with a high need for recognition of their achievements or drive for personal development may be attracted to a program such as Excellence in Leadership.

Blachly and Heitschmidt (1992) discuss the motivations that individuals have in joining an organization. The authors feel that membership is sought for both intrinsic and extrinsic reasons. Intrinsic reasons include filling needs for affiliation, learning, meeting a challenge, and using abilities. Extrinsic reasons include recognition, influencing others, or gain of economic benefit. Maslow (1970) proposed a widely accepted needs hierarchy. The higher-order needs in Maslow's model, those which are met after basic needs, include social affiliation, esteem and self-actualization.

It is hypothesized here that the ELP program appeals to higher order needs of students. Their need for affiliation may be met by identification as a group member or development of new friendships within the group. Students may seek this program to satisfy esteem needs by earning achievement levels. Finally, students may satisfy the need for self-actualization simply by developing their leadership potential. Because the students who are motivated to join the ELP program have likely been involved previously in activities aimed at satisfying their higher order needs, they may exhibit different leadership characteristics than those of their peers.

Kimmich asserts that the pool of potential leaders that colleges tend to draw upon is relatively small (1992). He states that many potential leaders do not present

themselves as candidates for leadership positions. This could be due to students classifying themselves as leaders or non-leaders. The idea that administrators also categorize students is supported by literature which suggests specific development programs for past high school presidents or elected leaders only (McIntire, 1989). In this light, the ELP program may, simply by labeling itself a leadership program, attract students with previous experience or students who already identify themselves as leaders. It follows that these experienced students would demonstrate more frequent leadership behaviors than their Non-ELP-member peers.

The Relationship Between ELP Achievement Level and Leader Behaviors

The second hypothesis is that the ELP members at higher levels of accomplishment exhibit more frequent leadership behaviors than those at previous levels. This hypothesis appears to make sense from the standpoint that students involved in learning activities over the course of time may develop more advanced leadership behaviors. This idea is supported by several literature sources.

Blachly and Heitschmidt (1992) describe a model termed Sequential Leadership Development. The authors assert that as students become more prepared for leadership, they move from a task-oriented position to a leadership-oriented position. They base this idea on Hersey and Blanchard's (1977) model of situational leadership.

The Sequential Leadership Development model predicts a ten-month development cycle. In this cycle, students move from learning organization-specific skills to transferring their personal skills into group processes. Blachly and Heitschmidt state that after reaching the leadership phase, student leaders "continue to learn new information and develop personal skills". Further, they "will maintain ongoing sequential leadership development with their peers". The idea that development will continue as the student remains in the learning situation is central to the current study's second hypothesis.

Another model is described by Breeze-Mead (1991) who states that her model is influenced both by years of student leader observation and by the developmental theories of Bennis and Nanus (1985), Kouzes and Posner (1987), Chickering (1972) and others. The author constructed a model for student leadership development which included eight competency areas for mastery. These areas are autonomy, group dynamics, human relations, positioning, task effectiveness, vision, and commitment.

In keeping with developmental theories, Breeze-Mead states that students develop their cognitive and psychosocial skills by stages. In the model she describes, student leaders begin in an "initial" stage where they have little awareness of leadership skills and behaviors. They progress to a "basic" stage where they discover and practice leadership skills and behaviors. In the third or "advanced" stage, student leaders apply their learning. Finally, when the student makes a commitment to utilize their leadership learning they enter the "peer" stage. Leadership development is

described as a timeline in which students progress step by step toward competence. Again, the idea that students learn and progress in their leadership behaviors over time supports the idea that ELP members will demonstrate higher frequencies of leadership behaviors at more advanced achievement levels.

The Relationship Between Program Participation and Behavior Change

The third hypothesis is that participation in the ELP program (completion of the Bronze achievement level) predicts higher increases in leadership behaviors than non-participation. The term "leadership development" itself, prolific in the literature, suggests that leadership change takes place during leadership programs. Changes in leadership knowledge and experience may alter, and hopefully increase, members' leadership behaviors.

This hypothesis is partially based on the literature which advocates specified learning outcomes for leadership development programs. Learning outcomes should be targeted and achieved in a leadership development program. If this happens, then it follows that members in the program will achieve those outcomes more frequently than those who do not participate.

Wells, for instance, advocates assessment of target group needs and specific learning outcomes when designing leadership retreats (1988). It is expected that the results of such efforts will have an impact on the members if the program is successful. The ELP program, due to requisite time and energy commitments from members,

surely impacts those members. It is suggested here that this impact will result in increased frequencies of leadership behaviors.

The literature which suggests that students develop their leadership characteristics in stages also supports this hypothesis. Blachly and Heitschmidt's (1992) Sequential Leadership Development is one such model. Breeze-Mead's (1991) model also supports the idea of developmental stages in leadership learning. Both models describe leadership development as a timeline in which students progress toward competence. If participation in a leadership development program is encouraging this sequential development, then members should demonstrate higher levels of leadership behaviors than Non-ELP-members.

The Relationship Between Program Continuation and Behavior Change

Hypothesis number four is that continuation in the ELP program (achievement of Silver or Gold levels) is related to increases in members' leadership behaviors. As with the second hypothesis, hypothesis number four is based on the concept that students involved in learning activities over the course of time will develop more advanced leadership behaviors. It is based on the same literature as well.

Hypotheses two and four are different in their treatment of ELP's exercises influence on students. If ELP does change students' leadership behaviors, then it is likely that students at higher achievement levels will exhibit more frequent leadership behaviors (second hypothesis) and that there is an increase in a student's frequency of

behaviors as students progress from one achievement level to the next (fourth hypothesis). If it does not influence students' leadership behaviors, then the second hypothesis could be supported, while the fourth would not be supported.

In other words, if the ELP program does not influence students' leadership behaviors, then members may reach achievement levels based on their previously existing leadership behaviors. In this case, it would make sense that increases in leadership behavior frequency between achievement levels would be unlikely since leadership behavior patterns would have been established previous to entry into ELP.

The Relationship Between Sex and Leadership Behavior

The fifth hypothesis is that males and females exhibit no differences in their leadership behaviors. In describing leadership programs for special populations, Poinsette (1981) and Anthony-Gonzalez (1981) describe several differences in leadership development for women. These differences could effect the development of women's leadership behaviors in an inclusive program. Anthony-Gonzalez points out that societal forces influence women's development. Specifically, myths about women, held by both sexes, reinforce traditional roles. Similarly institutional sexism has a limiting effect by pressuring women toward conformity. She advocates that self-concept, self-confidence, and encouragement may be the most important factors influencing women's leadership learning.

Poinsette (1981) states that women have been underrepresented in leadership roles despite substantial enrollment gains in postsecondary education. She cites several problems which discourage women's leadership development. These include socialized values that deter aspirations for leadership positions, insufficient assistance extended to women, formal processes that perpetuate sex inequity, and lack of supplemental leadership skill training programs for women. The difficulties described may influence women's leadership learning in the present study and support examination of scores grouped by gender.

The relationship between sex and leadership behavior changes is being investigated here principally due to the ease of collecting data. Requesting the sex of the students in each sample was a simple addition to the demographic data sheet. Posner and Brodsky (1994) investigated this relationship and found that sex was not a factor in determining effective leadership behavior. It is therefore the expectation of the researcher that no differences will be found between male and female students in the current study.

The Relationship Between Class Standing and Leadership Behavior

Class standing is a another important variable in evaluating student leadership behavior. The sixth hypothesis asserts that differences in leadership behaviors exist between students of different class standings. This relationship is also being investigated due to the ease of data collection. As students spend more time at a

college campus, their potential for obtaining leadership experience is heightened. Caruso and Boyar (1981) state that "freshmen and sophomores do not have the leadership experience that juniors and seniors have on university campuses" (p. 154). They also indicate that underclassmen can benefit from the leadership ability and maturity of upper-class students. It follows that there may be differences in the leadership behaviors exhibited by students in the currently researched program based on class standing.

CHAPTER III

METHODOLOGY

The purposes of this study were: (a) to describe the leadership behaviors of students involved in the ELP program at Grand Valley State University; and (b) to determine how ELP influences the leadership behaviors of its members. In developing a research design to respond to the study's research questions, a non-experimental, quantitative approach has been selected.

As an overview, this study collected information on students' leadership behaviors using the LPI - student version. Each student's social security number (last six digits), class standing, sex, and ELP achievement status was collected as well. Data was collected at the beginning of Fall Semester 1995 from all ELP members and from a sample of randomly selected Non-ELP-members.

Data was again collected at the culmination of Winter Semester 1996. The data was analyzed by comparing mean LPI scores between achievement levels. Score changes between pretests and posttests were compared between ELP members and Non-ELP-members. Sex and class standing were also utilized to group and compare data.

Anthony-Gonzalez and Fiutak (1981) concur with the researcher's opinion that evaluation of leadership programs is important. They describe the methodology

used in this study, one of the more commonly applied non-experimental research designs, as a "static group comparison". In a static group comparison, "two groups are measured, one which has had exposure to the program and one which has not" (p. 195).

This design differs from an experimental design in that there is no randomization of group assignment to the treatment. The authors state that "it can be a particularly useful strategy if a data base point is established between the two groups through a pretest/posttest". Anthony-Gonzalez and Fiutak describe the static group comparison as having potential in terms of leadership programs, since it is usually possible to identify another student group with which to compare results. This design is employed in the present study.

Further, Anthony-Gonzalez and Fiutak (1981) describe research in which "behavior" is the focus, as in the current study. They cite a need for preprogram behavioral documentation and state that pretest/posttest and participant self-reporting are appropriate methods to accomplish this. In the current study, the instrument utilized is a self-report instrument. It is used as both a pretest and posttest measure.

Independent variables in the current study are the levels of a student's achievement in the ELP program. Operationally, these are defined as No ELP involvement (Non-ELP-members), Newly registered ELP members (New-ELP-members), Bronze level of achievement, Silver level of achievement and Gold level of achievement.

Dependent variables are defined as students' leadership behaviors. Operationally, these are the mean scores for the five behavioral categories addressed by the LPI - Student Version. Each score has a possible range of between six and thirty. The behavioral categories include Enabling Others to Act, Modeling the Way, Inspiring a Shared Vision, Encouraging the Heart, and Challenging the Process. Comparisons were made and conclusions drawn by contrasting leadership behaviors and changes in behaviors over the course of the academic year.

It was assumed that students' self-reports of frequency of leadership behaviors are accurate measures of the actual frequency of leadership behaviors exhibited. This assumption is based on Posner and Kouzes' (1993b) finding regarding differences in the LPI (original version) self and observer scores. The authors were unable to conclude that differences existed between self and observer scores. Additionally, Posner and Brodsky (1992) concluded that self-perceptions of student leaders were not significantly different from those of their executive committee members.

It is further assumed that members' responses to the measurement instrument were accurate representations of their beliefs regarding their own leadership behaviors. This assumption is based on lack of evidence for any potential motivation for students to intentionally skew their responses. It is likely that any members with such a motivation would simply decline to participate.

Sample Composition and Selection

Grand Valley State University, founded in 1960, is a four-year public institution offering both graduate and undergraduate programs. Its main campus is located in Allendale, Michigan with regional centers in Grand Rapids and Muskegon. Grand Valley State University is accredited by the North Central Association of Colleges and Schools. The university enrolls over thirteen thousand students and maintains a faculty and staff size of over nine hundred.

The subjects of this study were students enrolled at Grand Valley State University during the 1995-1996 academic year. All registered ELP students were identified for inclusion in the study. A sample of Non-ELP-members was identified as a comparison group. Because no graduate students have participated in ELP in the past, the Non-ELP-member sample was limited to undergraduate students. This served to more closely match the types of students studied.

The Non-ELP-member sample group was identified and contacted through cooperation with the Registrar and Director of Institutional Analysis at Grand Valley. A computer program was configured to select a sample of random undergraduate students from the enrolled body of students in September, 1995. This was then used to generate local mailing labels and telephone numbers for the students.

Instrumentation

Leadership Practices Inventory

The Leadership Practices Inventory is an instrument based on the research of Posner and Kouzes (1987). In their work, the authors surveyed over five hundred and fifty leaders about their "personal best" cases - instances when the leaders felt they had "set their own individual leadership standard of excellence." (p. xx). Posner and Kouzes discovered that over eighty percent of the behaviors or strategies described in these personal best cases were accounted for by five leadership practices - Enabling Others to Act, Modeling the Way, Inspiring a Shared Vision, Encouraging the Heart, and Challenging the Process (1988).

There are two forms of the Leadership Practices Inventory, the LPI - Self and LPI - Observer. The LPI - Observer was originally designated the LPI - Other (Posner & Kouzes, 1988). Both versions are self-report instruments which ask respondents to reply to thirty statements regarding behavior. On the LPI - Self, the statements concern the respondent's own behavior. On the LPI - Observer, the statements are made regarding a specified leader's behavior (Posner & Kouzes, 1993b).

The psychometric properties of the LPI were evaluated by Posner and Kouzes in 1988 and again in 1993. In the first study, 2,876 managers and executives were tested using the instrument. In the latter study, the sample for analyses consisted of over 3,000 managers and their subordinates. In the 1988 study, internal consistency

estimates of reliability were found between .70 and .91. Test-retest reliabilities were found at .93 and above for each scale in the instrument.

In the 1993 study, internal reliabilities were found between .80 and .91. Test-retest reliabilities were again found at .93 and above for each scale in the instrument. Both studies found the LPI to be a reliable and valid assessment of respondent behavior. The authors concluded that this instrument represented substantial internal reliability and strong reliability over time (Posner & Kouzes, 1988; Posner & Kouzes 1993b). Most importantly, the authors resolved that significantly better than chance predictions of subordinate assessment of manager effectiveness could be made based on results of the instrument (1988).

In analyzing LPI results, differences between Self and Observer versions were noted. In their first psychometric assessment, the authors recommended caution in interpreting the LPI - Self independently of LPI - Observer feedback (1988). However, in a subsequent assessment, they noted that "While LPI-Self scores tend to be somewhat higher than those provided from the LPI-Observer scores, in the aggregate, these differences are generally not statistically or practically different." (1993b, p. 198). Furthermore, little support was found for functional backgrounds, ethnic backgrounds, or cultural backgrounds affecting leadership behavior.

LPI - Student Version

Noting that instruments designed specifically for college students to measure their leadership development were not available, Posner and Brodsky adapted the LPI for use with college student populations. The development of this instrument included adapting the Posner and Kouzes leadership model to college students' experiences; pilot testing the modified LPI; and validating the relationship between leadership practices and effectiveness with this new population (Posner & Brodsky, 1992).

On the LPI - student version, strong correlations were found between all five leadership practices and both internal and external effectiveness (Posner & Brodsky, 1992; Posner & Brodsky, 1993). In their 1992 study on effective fraternity presidents, the authors found multiple R coefficients of .79 with internal effectiveness measures and .62 with external effectiveness measures. On the self version of the instrument, internal reliability coefficients of between .62 and .76 were found. In a 1993 study of effective resident assistants, the authors found internal consistency reliabilities between .65 and .83 for the self version.

While the authors suggest use of data from other members of students' organizations for a "better picture and deeper understanding" of students' leadership practices in use, the student LPI - self version was selected for use in the present study. A factor in choosing the self version is that the population of students participating in the ELP program are members of a wide range of organizations. This

would make data collection from multiple constituent groups difficult and potentially inaccurate.

Secondly, differences between self and constituent scores were not found in the development of the student LPI or in the latter analysis of the original LPI. In their 1993 study on the effectiveness of resident assistants, Posner and Brodsky found that "self and constituent perspectives are remarkably similar across all five leadership practices" (p. 302). In another study, they also stated "self-perceptions of student leaders were found not to be significantly different from those of their executive committee members (subordinates)" (1992, p. 236).

The student LPI - self was chosen for use in the present study due to direct applicability to college student populations, presence of strong support for reliability and validity, and relative ease of use. The authors of the instrument concluded that the student LPI could be used to "measure and assess the extent to which individual student leaders have made progress in enhancing their leadership capabilities" - a primary concern of the present study (Posner & Brodsky, 1992, p. 237).

Data Collection Procedures

Approval for data collection was obtained from the Human Subjects Institutional Review Board at Western Michigan University. The reader is referred to Appendix A for notification of approval. Approval was also sought from the Human

Subjects Review Committee at Grand Valley State University. Notification of approval is appended in Appendix B.

Pilot Study

A pilot study was conducted with four Grand Valley State University students in August, 1995. The purpose of the pilot study was to clarify instructions, administration procedures, and time estimates for the study. Pilot study members were selected based on convenience sampling.

Two on-campus residents were contacted by phone utilizing the Pretest Telephone Script (Appendix E). This phone contact was used as a basis to edit the telephone script for more comfortable dialogue. Both students indicated willingness to participate. A Pretest Cover Letter (Appendix J), Demographic Data Sheet (Appendix C), return envelope and student LPI were mailed to each student.

One respondent completed the LPI and returned it as expected. The second returned an incomplete LPI and wrote a note indicating that she had never been part of a group on which to base her responses. Based on this information, the Demographic Data Sheet was revised. The revision suggested several contexts in which a student could identify group experiences (club, class, team) and allowed students to respond "in general" without specifying a particular group. Group involvement, interpreted broadly, could involve a class project; a class itself; a family function; or any other experience with other people. It was believed that all students have some type of

group experience regardless of whether they could not identify a group on the demographic data sheet.

Two other students agreed to complete the student LPI with in-person instructions. Pilot study members were allowed to provide both written and verbal feedback. These students completed the LPI as expected without questions or confusion. Based on this trial administration, the Pretest and Posttest Administration Guidesheets (Appendices D and E) were left unrevised.

ELP Orientation and Final Reflection

Initial data collection for ELP members was conducted at the ELP Orientation in September, 1995. The ELP Orientation is a mandatory orientation session held in September which all students registered with the ELP are required to attend. As outlined in the Pretest Administration Guidesheet (Appendix D), ELP members were assured that their responses will remain confidential and that they have the right to decline participation in the study if desired. Students were given the option to either not take a student LPI form and demographic data sheet, or to take copies of each and not complete the demographic data sheet. All students chose to participate.

Final data collection for ELP members was conducted at the Final Reflection session in April, 1996. The Final Reflection is a mandatory closing session held in April. Again, ELP members were assured that their responses would remain confidential and that they had the right to decline participation in the study if desired.

Data was collected in the same manner as at the ELP Orientation session and used the Posttest Administrative Guidesheet (see Appendix E).

Following data collection, the researcher gave a presentation on the student LPI to the ELP program members. Information was included on how they could obtain more information about their scores following the program, what leadership behaviors were measured, and how this information could assist them in developing their leadership skills.

A list of members successfully completing an ELP achievement level was obtained from the ELP coordinator and used to cross-reference with the initial registrant list. Members who had completed a new level but were not present at the Final Reflection were included in the telephone and mailing data collection.

Telephone Contacts and Mailings

Data for Non-ELP-members and new level achievers who did not attend the Final Reflection was obtained through telephone calls and mailings. Student addresses and phone numbers were obtained from the computerized Grand Valley State University Student Information System. This data was updated on an ongoing basis and verified prior to both the pretest and posttest administrations.

Several methods were utilized in an effort to maintain a high response rate to mailed instruments. The first was a personal telephone call requesting the assistance of the student involved. Secondly, the approval and use of the Dean of Student's

signature on the accompanying request letter was intended to lend maximum credence to the request for a response. A stamped and addressed return envelope was included in the packet to make response as easy as possible for the subjects. Finally, a GVSU pen was taped to each cover letter as a token of appreciation and to use in completing the instrument. Several students commented afterward that the pen and stamped return envelope were the only reasons they responded to the study.

Telephone calls were made to the identified sample of randomly selected Non-ELP-members in September, 1995. These calls were intended to introduce the students to the researcher, familiarize them with the project, and solicit their support. The calls followed the script outlined in Appendix F and were made immediately prior to mailings. The student LPI, Demographic Data Sheet (Appendix C), and Pretest Cover Letter (Appendix J) were mailed to these students.

After a two week return period, follow-up phone calls and mailings were made to encourage participation from those students who had not responded. The Follow-up Telephone Script and Follow-up Cover Letter are located in Appendices H and K respectively. Following a second two week collection period, a second follow-up effort was made utilizing the Second Follow-up Telephone Script in Appendix I and Follow-up Cover Letter in Appendix K.

In April, 1996, the telephone contact and mailing procedure was repeated to collect posttest data on Non-ELP-members and new level achievers who did not

attend the Final Reflection. ELP members who achieved a new level but failed to attend the Final Reflection were identified through consultation with the ELP Director.

Immediately following the Final Reflection session, the Posttest Telephone Script in Appendix G and Posttest Cover Letter in Appendix L were utilized in administering the instrument. A follow-up effort was made after a two week collection period utilizing the Follow-up Telephone Script in Appendix H and Follow-up Cover Letter in Appendix K. After another collection period, a second follow-up effort was made utilizing the Second Follow-up Telephone Script in Appendix I and Follow-up Cover Letter in Appendix K. After all collected data was loaded into a computer file, the original material (demographic data sheets and LPI instruments) was destroyed to further protect the confidentiality of the subjects.

Use of two methods of data collection, mailings and in-person administration, raise a concern that student responses may differ based on their administration technique. In order to minimize this risk, the telephone scripts; cover letters; and administration guidesheets were written for maximum similarity. In addition, when questions were raised during an in-person administration, simple restatements from the guidesheet or LPI instructions were utilized as responses. This insured that all subjects were provided with identical information during administration of the instrument.

Data Analysis

Dependent variables are defined in this study as mean scores on behavioral categories (Challenging, Enabling, Encouraging, Inspiring and Modeling) of each LPI for a given independent variable. The LPI category scores are reported as a number between six and thirty. The scores represent frequency of each leadership behavior, higher numbers indicating more frequency.

Responses on the LPI are written as a Likert scale -- a graded scale of nominal responses. Because the researcher believes that the response gradations represent equal differences in student opinion, this data was treated as approximately interval scale for purposes of analysis. This treatment of the data as interval scale allowed for the use of means in analyzing the results.

The Statistical Package for the Social Sciences (SPSS) computer program was used to analyze the collected data. In all tests of hypotheses, the 0.10 confidence level was used for determining statistical significance. The hypotheses were stated in null form and were either rejected or not rejected.

The researcher noted that life experience, continuation as a student at Grand Valley State University for an academic year, might increase students' leadership behaviors independently of ELP participation. To account for this threat to validity, some hypotheses were addressed utilizing mean score changes. A mean score change was defined as the student's year-end student LPI scores less their initial student LPI scores. By using students' score changes over the course of a year rather than raw

scores, members could be effectively compared to Non-ELP-members regardless of whether both groups' scores increased in general.

Conceptually, the first hypothesis was that the ELP program attracts students who exhibit more frequent leadership behaviors than those who are not attracted to the ELP program. This hypothesis was tested by comparing the initial mean LPI scores of New ELP members with those of Non-ELP-members. It was expected that the mean scores of New ELP members would be higher than the mean scores of Non-ELP-members. A one-tailed t-test for independent means, a parametric test, was used to compare these mean scores.

The second hypothesis was that ELP members at higher levels of accomplishment exhibit more frequent leadership behaviors than those at previous levels. This hypothesis was operationalized by comparing mean pretest LPI scores for each ELP achievement level with the mean scores of the other achievement levels. It was expected that the mean pretest scores at each achievement level would be higher than those of the previous level. A Kruskal-Wallis ANOVA was used to compare the scores of ELP members.

Conceptually, the third hypothesis was that participation in the ELP program (completion of the first achievement level) creates greater increases in leadership behaviors than non-participation. The effect of ELP participation was examined by comparing score changes of Non-ELP-members with those of New Bronze level members. It was expected that New Bronze level students would show positive score

changes of a greater magnitude over the academic year than would Non-ELP-members. A one-tailed t-test for independent means was used to compare score changes between these two groups.

The fourth hypothesis was that continuation in the ELP program is related to increases in members' leadership behaviors. This was tested by examining changes in leadership behavior frequencies for each group of new level achievers. It was expected that those achieving Silver and Gold levels during the academic year (continuation beyond Bronze) would show a positive difference in mean LPI scores. Furthermore, it was expected that these changes in behavior frequencies would be of greater magnitude than those exhibited by Non-ELP-members. A Kruskal-Wallis ANOVA was again utilized to analyze this data.

It is possible that a student's sex may influence development of leadership behaviors. The fifth hypothesis is that men and women exhibit no differences in leadership behaviors. This hypothesis was tested by comparing pretest scores between men and women for the Non-ELP-member and New-ELP-member samples. It was expected that no score differences would be found between men and women. A Mann-Whitney U test was utilized to compare these scores.

It is also possible that a student's class standing may influence development of leadership behaviors. The sixth hypothesis was that class standing at Grand Valley State University is related to frequency of leadership behaviors. This hypothesis was tested by comparing pretest scores between all class standings for the

Non-ELP-member and New-ELP-member samples. It was expected that score differences would be found between class standings. A Kruskal-Wallis ANOVA was utilized in this analysis.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Description of the Samples

Pretest Sample

Three sample groups were examined in the pretest portion of this study: Non-ELP-members, New-ELP-members and ELP-members. Their sample sizes and response rates are summarized in Table 1. The first group was comprised of seventy-five undergraduates as randomly identified by a computerized random number generator. Of these seventy five students, fifty-six returned their LPI. One student returned an inventory during November, 1995 which was deemed invalid as a pretest score. This represents a valid return rate of 73.33 percent. The number of students surveyed, valid responses, and response rates for the three samples are summarized in Table 1.

Of the fifty-six randomly selected respondents (Non-ELP-members), forty responded to the first pretest contact, eleven responded to the follow-up contact, and five responded to the second follow-up. Twenty-nine respondents identified a specific group with which they identified when completing their inventory. Of those

twenty-nine, twenty described their affiliation with the group as "moderate", "strong", or "very strong" and eight did not rate their affiliation.

Table 1
Pretest Sample Sizes and Response Rates

	Surveyed	Valid Responses	Response Rate %
Non-ELP-members	75	55	73.33
New-ELP-members	68	65	95.59
ELP-members	45	39	86.67

The randomly selected respondent group was comprised of thirty-four females and twenty-two males. Those that failed to respond represented nine females and ten males. Of those that responded, eighteen were first year students, eight were sophomores, eleven were juniors, and sixteen were seniors.

The second sample, New-ELP-members, consisted of sixty-eight students who were new to the ELP program in Fall Semester 1995. These students were identified by their presence at the orientation meeting. Because the instrument was administered in person with this entire group, all inventories were collected in the first contact attempt and all students returned the instrument. Three instruments were incomplete and therefore discarded. This left a sample size of sixty-five New ELP members and a response rate of 95.59 percent as indicated in Table 1.

Fifty-one of the New ELP members identified a specific group with which they identified when completing their inventory, while fourteen did not. Of those that identified a group, forty-three described their affiliation with the group as "moderate", "strong", or "very strong" and seven did not rate their affiliation. Forty six of these New ELP members were female and nineteen were male. The pool was comprised of twenty-seven freshmen, fifteen sophomores, eleven juniors, and twelve seniors.

The third sample group was comprised of students who were previously involved in the ELP program. Forty-five students were included in this group, the entire population of currently enrolled students with a previous achievement level in the program. This group was identified by the ELP coordinator at Grand Valley. Twenty-one bronze level students, eight silver level students, eight gold level students, and two diamond level students responded. The diamond level students were not included in the analysis because of large differences in the format of requirements for this level. Six students did not respond to initial or follow-up contacts, generating a return rate of 86.67 percent and leaving a sample of size thirty-nine as indicated in Table 1. Of the six non-respondents, four held Bronze level achievement, one held Silver, and one was a Gold level achiever. Thirty three responses were generated from the first contact attempt, two from the initial follow-up, and four from the second follow-up contacts.

Table 2
Pretest LPI Scores for All Sampled Students

	Enabling	Modeling	Inspiring	Encouraging	Challenging
Non-ELP-members	24.69	21.44	21.18	22.87	20.67
New-members	25.08	21.85	22.22	24.60	21.83
Bronze-members	25.76	22.76	23.67	24.48	22.05
Silver-members	25.38	21.63	21.63	24.75	21.88
Gold-members	26.50	23.50	24.50	26.88	24.50

Thirty-five of the ELP members identified a specific group with which they identified when completing their inventory, while four did not. Of those that identified a group, thirty-two described their affiliation with the group as "moderate", "strong", or "very strong" and five did not rate their affiliation. Only eight of the thirty-nine ELP member respondents were male, with thirty-one females.

The first research question guiding this study is directed at assessing the leadership practices of ELP members. A summary of all of the sampled student's scores is provided in Table 2. It should be noted that the possible range of scores is between 6 and 30.

Posttest Sample

The Posttest sample was constructed to examine the progress of four groups: Non-ELP-members, New-Bronze-members, New-Silver-members, and New-Gold-members. The sample sizes and response rates for these groups are summarized in Table 3. Non-ELP-members were post-tested as a static group with which to compare ELP program participants. All ELP members who advanced by one level were considered for purposes of comparisons (New-Bronze-members, New-Silver-members, and New-Gold-members).

Table 3
Posttest Sample Sizes and Response Rates

	Surveyed	Valid Responses	Response Rate %
Non-ELP-members	54	40	74.07
New-Bronze-members	9	9	100.00
New-Silver-members	6	6	100.00
New-Gold-members	3	2	66.66

Of the fifty-five Non-ELP-members who returned the pretest LPI, forty-one completed a posttest LPI. One student had withdrawn from Grand Valley, but

returned the posttest. Her LPI was removed as a viable sample. The resulting forty of fifty-four possible post-tests represent a 74.07 percent response rate.

Thirty-one posttest respondents returned the posttest on the initial mailing, eight responded to the follow-up attempt, and two responded to the second follow-up. Twenty-four of these respondents were female, seventeen were male.

Thirty Grand Valley students achieved the Bronze level in ELP. Of those thirty, nine had returned a pretest score on the first attempt. All nine of these New-Bronze-members returned posttest scores, representing a 100 percent return rate. Three of the nine respondents were male, six were female. The remaining twenty-one students who were awarded the Bronze level did not attend the ELP Orientation, despite it's "mandatory" status. They were, therefore, not initially identified as New-ELP-members and could not be included in the posttest sample.

Ten students achieved the Silver level in ELP. Of those ten, six had returned a pretest score. All six of these New-Silver-members returned their posttest score on the first attempt, representing a 100 percent return rate. All six respondents were female. Of the remaining four students who earned the Silver level, two had not returned a pretest score and two were not identified as ELP members during the pretest phase of this study.

Five students achieved the Gold level in ELP. Of those five, three had returned a pretest score, two had not. Among the three who had returned a pretest, two also

returned a posttest. This represents a return rate of 66.66 percent. One New-Gold-member was male, the other was female.

The Relationship Between Initial Leader Behaviors and Program Entry

It was expected, based on the voluntary nature of ELP, that New-ELP-members would exhibit higher initial leadership behavior frequencies than those of Non-ELP-members. In other words, it was thought that students who self-identify as potential ELP members may have experiences or abilities that predict more frequent leader behaviors. Table 4 compares the mean pretest scores of New-ELP-members and Non-ELP-members.

The operational hypothesis was that New-ELP-members would demonstrate higher initial LPI scores than Non-ELP-members. The null hypothesis, therefore, was that the mean score of Non-ELP-members is greater than or equal to the mean score of New-ELP-members for each leadership behavior. This study used an alpha (α) level of .10, indicating acceptance of a ten percent probability that an incorrect conclusion was drawn regarding the null hypotheses.

The Non-ELP-member and New-ELP-member samples were compared on each of the LPI's five behavioral scales. A one-directional t-test for independent means was performed to address the null hypotheses. Because this was a parametric test, two associated assumptions needed to be addressed. The first assumption was that the distribution of the populations of Non-ELP-members and New-ELP-Members

were normally distributed. In this case, the use of large sample sizes would minimize the impact of non-normal distributions on the test results, minimizing concern about the normality of distribution.

Table 4

Pretest LPI Scores for Non-ELP-members and New-ELP-members

	Non-ELP-members (n=55)		New-ELP-members (n=65)		
	\bar{x}	SD	\bar{x}	SD	p
Enabling	24.69	3.63	25.08	2.74	.254
Modeling	21.44	4.32	21.85	3.23	.277
Inspiring	21.13	5.09	22.22	3.48	.085*
Encouraging	22.87	4.46	24.60	3.51	.095*
Challenging	20.67	4.24	21.83	3.07	.043*

*Less than α of .10

The second parametric assumption was that the variances of the population distributions of Non-ELP-members and New-ELP-Members are equal. A Levene test for homogeneity of variance was used to test this assumption. This test produces a probability that the differences in sample variances would be as they are if the population variances were the same. Sample variances are reported as standard deviations, SD, in Table 4. A high Levene probability indicates that the original

populations were more homogenous. A probability of .20 or higher would indicate no strong evidence that the variances were unequal. The range of values produced for this test spanned a low of .076 to a high of .524. Although some of the Levene values were lower than desired, non-homogenous variances would produce minimal effect on the test results because the sample sizes are similar.

The exact one-tailed probability that the Non-ELP-members' and New-ELP-members' mean behavioral scores represent the same populations (that Non-ELP-members and New-ELP-members do not differ on that behavioral trait) is reported in the p value column of Table 4. The reader should note that the exact probability is less than the α level of .10 in three of the five leadership behaviors. This leads to the conclusion that different populations are represented by the data (Non-ELP-members differ from New-ELP-members) in these three leadership behaviors. The mean scores for New-ELP-Members is higher in each of these behavioral traits.

It is concluded that New-ELP-members in the ELP program differ from the general body of GVSU students. We are unable to draw a conclusion about the relationship between initial leader behaviors and ELP entry in regard to Enabling and Modeling. However, New-ELP-Members indicate higher frequencies of Inspiring Shared Vision, Encouraging the Heart, and Challenging the Process than do Non-ELP-members. Thus, to this degree, the ELP program does attract students who

exhibit more frequent leadership behaviors than those who are not attracted to the program.

The Relationship Between ELP Achievement Level and Leader Behaviors

It was expected that students at higher levels of achievement in the ELP program would exhibit more frequent leadership behaviors than those at the next lower level. In other words, students who have achieved a higher level in ELP were expected to exhibit higher scores on the LPI. In the samples of Bronze, Silver, and Gold Level ELP Members; sample sizes were small (Silver and Gold) and dissimilar. It was therefore difficult to draw conclusions regarding the homogeneity of variances or normality of the populations. Parametric assumptions may be relevant to this analysis, so a non-parametric test was utilized. A Kruskal-Wallis ANOVA, the non-parametric corollary to the one-way ANOVA (Hinkle, Wiersma & Jurs, 1994), was used to compare the scores of ELP-members. No assumptions need be addressed for this test.

Operationally, this hypothesis asserts that there are differences in mean LPI scores between all achievement levels. The null hypothesis is that the mean rankings of scores are equal at each achievement level. The mean pretest LPI scores for Bronze, Silver, and Gold level students are summarized in Table 5.

The exact probability that the ELP members' mean behavioral scores represent the same populations (that Bronze, Silver, and Gold level members do not differ on

Table 5
Mean Pretest LPI Score Ranks by ELP Achievement Level

	Bronze Level members (n=21)	Silver Level members (n=8)	Gold Level members (n=8)	
	\bar{x}	\bar{x}	\bar{x}	p
Enabling	18.81	16.88	21.63	.669
Modeling	19.36	15.00	22.06	.408
Inspiring	20.62	12.00	21.75	.112
Encouraging	17.26	18.13	24.44	.267
Challenging	17.90	15.19	25.69	.116

that behavioral trait) is reported in the p value column of Table 5. None of these probabilities is less than our α of .10. This indicates an inability to reject the null hypothesis that students at each ELP level exhibit the same scores than those at other levels. We are therefore unable to draw any conclusions about the relationship between achievement level and leader behaviors. Had we rejected the null hypothesis, a post-hoc procedure would have been performed to determine which ELP members differed and in what direction.

The Relationship Between Program Participation and Behavior Change

It was expected that participation in ELP institutes greater increases in leadership behaviors than does non-participation. In order to examine this hypothesis, students' scores were examined at the beginning of the academic year and at the end of the year. The differences in these scores were calculated (score changes) and compared. Score changes and their standard deviations for the New Bronze level students and the Non-ELP-member students are shown in Table 6.

Operationally, this hypothesis asserts that students completing the Bronze level of achievement should show higher LPI scores on their posttest score than on their pretest. Furthermore, it expects that, overall, these score changes would be of a greater magnitude than those of their Non-ELP-member counterparts. The null hypothesis is that the mean LPI score change of New Bronze level students is less than or equal to the mean LPI score change of Non-ELP-members. A one-tailed t-test for independent means was used to test this hypothesis for each leadership behavior scale.

Because this is a parametric test, two relevant assumptions need to be addressed. The first parametric assumption is normal distribution. This assumption was addressed using a Kolmogorov-Smirnov Goodness of Fit Test. Kolmogorov-Smirnov tests the null hypothesis that a sample comes from a population in which the variable is distributed according to one of three important distributions - in this case, the normal distribution. For Non-ELP-members, the probabilities ranged from .15 to .82. For New Bronze level students, the probabilities ranged from .45 to

.92. None of these probabilities were under our α of .10, therefore we did not reject the hypothesis that the samples were normally distributed.

Table 6

LPI Score Changes and Standard Deviations by ELP Level

	Non-ELP-members (n = 39)		New Bronze Level (n = 9)		p
	\bar{x}	SD	\bar{x}	SD	
Enabling	.51	2.72	.11	1.62	0.33
Modeling	1.54	3.72	(.11)	3.62	.122
Inspiring	1.77	3.36	2.67	3.64	.235
Encouraging	1.15	3.82	(.11)	5.33	.207
Challenging	1.74	3.04	.89	3.33	.234

The second parametric assumption is homogeneity of sample variance. A Levene test for homogeneity of variance was used to test this assumption. The Levene test produces a probability that the differences in sample variances would be as they are if the population variances were the same. Sample variances are reported as standard deviations, SD, in Table 6. A probability of .20 or higher would indicate no

strong evidence that the variances were unequal. The range of values produced for this test spanned a low of .150 to a high of .698.

The one value smaller than .20 was for the Enabling practice. Hinkle, Wiersma, and Jurs (1994) indicate that when the larger variance is associated with the larger sample (as in this case) the estimated probability will be too conservative. Because our α is smaller than the probability level for Enabling, this does not present a concern.

It was expected that the mean score changes for New Bronze level students would be positive. This was not the case for Modeling and Encouraging. Furthermore, all of the mean scores for Non-ELP-members were positive. With the exception of Inspiring, the Non-ELP-member's mean score changes increased with a greater magnitude than those of New Bronze level students.

The exact one-tailed probability that the mean LPI score change of New Bronze level students is less than or equal to the mean LPI score change of Non-ELP-members is reported in the p value column of Table 6. None of these probabilities is less than the alpha of .10. This indicates an inability to reject the null hypothesis. We are therefore unable to draw any conclusions about the relationship between program participation and behavior change.

The Relationship Between Program Continuation and Behavior Change

It was expected that those achieving Silver and Gold levels during the academic year (continuation beyond Bronze) would show an increase in leadership behavior frequencies. Furthermore, it was expected that these changes in behavior frequencies would be of greater magnitude than the changes exhibited by Non-ELP-members. The mean ranks of score changes for Non-ELP-members, New Silver level students, and New Gold level students are summarized in Table 7.

In the samples of new Silver and Gold level ELP members, the sample sizes were small and dissimilar. It was therefore difficult to draw conclusions regarding the homogeneity of variances of these populations. Therefore, parametric assumptions may be relevant to this analysis, so a non-parametric test was utilized.

A Kruskal-Wallis ANOVA was again utilized, this time to compare the score changes of Non-ELP-members with those of New Silver and Gold level students. No assumptions need to be met for this test. Operationally, this hypothesis asserts that New Silver and Gold level achievers will show a positive difference in pretest to posttest LPI scores. Furthermore, it was expected that these changes in LPI scores would be of greater magnitude than the changes exhibited by Non-ELP-members. The null hypothesis is that the mean ranks of the score changes for New Silver level or New Gold level students are equal to the mean ranks of score changes for Non-ELP-members. The exact probability that the mean ranks of these score changes

occurred when the samples were drawn from the same population is reported in the p column of Table 7.

The probability that these mean ranks occurred when the samples were drawn from the same population is reported in the p value column of Table 7. All of these probabilities are greater than the α level of .10. We are therefore unable to reject the null hypothesis. No conclusions can be drawn regarding the relationship between ELP program continuation and leadership behavior change.

Table 7
Mean LPI Score Change Ranks by New ELP Level

	Non-ELP- members (n = 39)	New Silver Level (n = 5)	New Gold Level (n = 2)	
	\bar{x}	\bar{x}	\bar{x}	p
Enabling	29.12	18.10	34.75	.641
Modeling	29.66	16.70	41.25	.136
Inspiring	26.55	23.40	49.00	.313
Encouraging	28.66	20.60	24.00	.646
Challenging	28.46	29.00	21.75	.691

The Relationship Between Sex and Leadership Behavior

It was expected that no differences in leadership behavior would be found between sexes. In order to examine this hypothesis, the pretest LPI scores of men and women in the Non-ELP-member and Bronze level samples were examined. Operationally, it is hypothesized that differences exist in the mean ranks of LPI scores for men and women. The null hypothesis, therefore, is that no differences exist in the mean ranks of LPI scores for men and women.

In the samples of Bronze Level Members and Non-ELP-members, sample sizes were small and dissimilar. It was therefore difficult to draw conclusions regarding the homogeneity of variances or normality of the populations. Parametric assumptions may be relevant to this analysis, so a non-parametric test was utilized.

A Mann-Whitney U test was used to compare pretest LPI scores for men and women in both the Non-ELP-member and Bronze level samples. This test produces a probability that the sample scores came from like populations based on the rank order of each score. This is a non-parametric test, no assumptions need be addressed. The null hypothesis is therefore that no differences exist in these LPI scores, that the mean ranks of LPI scores for men and women are the same in both the Non-ELP-member and Bronze level populations. Table 8 summarizes the mean ranks of these LPI scores.

Table 8
Mean Ranks of Pretest LPI Scores by Sex

	Non-ELP-members			Bronze Level Members		
	Men (n = 20)	Women (n = 34)		Men (n = 3)	Women (n = 18)	
	\bar{x}	\bar{x}	p	\bar{x}	\bar{x}	p
Enabling	20.45	31.65	.011*	5.83	11.86	.116
Modeling	22.00	30.74	.048*	4.00	12.17	.033*
Inspiring	24.85	29.06	.341	6.50	11.75	.171
Encouraging	21.17	31.22	.023*	3.83	12.19	.030*
Challenging	25.99	30.08	.354	7.00	11.67	.227

*Less than α of .10

The probability that the mean ranks are the same is reported in the p value column of Table 8. This probability is less than our α level of .10 for three of the five leadership behaviors in the Non-ELP-member group (Enabling, Modeling, and Encouraging). The probability is less than α in two of the five leadership behaviors for the Bronze level group. For these cases, we are able to reject the null hypothesis and resolve that a difference does exist. In each of these cases, men exhibited less frequent leadership behaviors than women.

It is concluded that women at GVSU exhibit more frequent leadership behaviors of Enabling Others to Act, Modeling the Way, and Encouraging the Heart. Amongst ELP members, women exhibit more frequent leadership behaviors in Modeling the Way, and Encouraging the Heart. We are unable to draw any conclusions regarding differences in leadership behavior between sexes in the other categories of leadership behavior.

The Relationship Between Class Standing and Leadership Behavior

It was expected that differences in leadership behavior would be found between class standings - that class standing at Grand Valley State University is related to frequency of leadership behaviors. LPI scores were compared between class standings for both the Non-ELP-member and Bronze level samples. In the samples of Bronze Level Members and Non-ELP-members, sample sizes were small and dissimilar. It was therefore difficult to draw conclusions regarding the homogeneity of

variances or normality of the populations. Parametric assumptions may be relevant to this analysis, so a non-parametric test was utilized.

A Kruskal-Wallis ANOVA, was selected to test this data. This is a non-parametric analog to the one-way ANOVA (Hinkle, 1994), parametric assumptions need not be met. Operationally, this hypothesis asserts that there are differences in mean LPI score ranks of all class standings (Freshmen, Sophomores, Juniors, and Seniors). The null hypothesis is that the mean rankings of scores are equal between all class standings. Mean ranks are summarized in Table 9. No Freshman scores are reported at the Bronze level as this award requires a year of participation for completion.

The probabilities that the mean ranks for the samples in Table 9 are reported in the p columns. The probability that the mean LPI score ranks of Bronze level students are the same for each class is greater than α (.10). We are unable to reject the null hypothesis that the mean ranks are equal. Thus, we can say nothing about the conceptual hypothesis in regard to Bronze Level students.

For the Non-ELP-members the p value is less than α (.10) only for Challenging the Process. In this case, we reject the null hypothesis that no differences exist. Thus, no conclusions may be drawn regarding class standing and the other four leadership behaviors.

Table 9
Mean LPI Score Ranks by Class Standings

	Non-ELP-members					Bronze Level ELP members			
	Freshmen	Sophomores	Juniors	Seniors		Sophomores	Juniors	Seniors	
	(n = 18)	(n = 8)	(n = 12)	(n = 17)		(n = 4)	(n = 11)	(n = 6)	
	\bar{x}	\bar{x}	\bar{x}	\bar{x}	p	\bar{x}	\bar{x}	\bar{x}	p
Enabling	35.25	26.06	22.33	25.24	.118	12.00	11.77	8.92	.616
Modeling	33.19	25.81	26.50	24.59	.401	10.13	11.86	10.00	.795
Inspiring	29.78	26.31	28.83	26.32	.912	8.13	11.73	11.58	.581
Encouraging	31.08	26.81	26.92	26.06	.795	11.63	11.23	10.17	.921
Challenging	29.50	23.56	19.50	34.50	.072*	8.63	10.73	13.08	.525
*Less than α of .10									

In order to explore the rejection of the hypothesis that the mean ranks of each class standing of Non-ELP-members are equal for Challenging the Process scores, a post-hoc analysis was undertaken. A one-way ANOVA was performed, along with a Least Squares Difference test. A .10 α level was used for both tests.

Because the one-way ANOVA is a parametric test, its assumptions needed to be addressed. The first assumption was that the distribution of the populations of each class standing among Non-ELP-members were normally distributed. In this case, the use of large sample sizes to reduce the impact on the test results was not possible. Sample sizes ranged from eight to eighteen. Hinkle, Wiersma, and Jurs (1994, p. 337) indicate, however, that when the populations sampled are not normal, the effect on Type I error is minimal.

The second parametric assumption is that the variances of the population distributions of each class standing within Non-ELP-members are equal. Sample variances, reported in Table 9 as standard deviations for the Freshman, Sophomore, Junior, and Senior populations, ranged from 2.43 to 4.73. A Levene test for homogeneity of variance was used to test the homogeneity of variance assumption. This test produces a probability that the differences in sample variances would be as they are if the population variances were the same. A probability of .20 or higher would indicate no strong evidence that the variances were unequal. In this case, a Levene value of .324 was reported, indicating no strong evidence that the population variances were unequal.

Descriptive statistics for the Non-ELP-members are summarized in Table 10. The one-way ANOVA confirmed the Kruskal-Wallis ANOVA results, indicating a probability of .061 that the mean Challenging scores were the same for all class standings of Non-ELP-members. The null hypothesis was rejected and a least squares difference test performed as post-hoc analysis.

The Least Squares Difference test indicated that differences existed between two sets of class standings. Freshmen differed from Juniors, and Juniors differed from Seniors. The means represented by these groups (Table 10) indicate that Freshmen scored higher than Juniors and Seniors scored higher than Juniors on Challenging the Process among Non-ELP-members. The hypothesis is supported to this minimal extent.

Table 10
Challenging the Process Scores of Non-ELP-members

	n	\bar{x}	SD
Freshmen	18	21.28	3.54
Sophomores	8	20.25	2.43
Juniors	12	18.00	4.73
Seniors	17	22.12	4.61

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Research Summary

This study was guided by the following three research questions: (1) What do the leadership behaviors of ELP members look like at each level of achievement?; (2) How do ELP program members' leadership behaviors differ, if at all, from Non-ELP-members?; and (3) What relationship exists between ELP participation and members' leadership behaviors? A summary of conclusions is found in Table 11.

The first research question was addressed by calculating mean LPI scores for Bronze, Silver, and Gold level members for the pretest sample. These scores provided an assessment of students' leadership practices based on their frequency of exhibition of five leader behaviors. A summary of these scores is found in Table 2. It is interesting to note how GVSU students compare with the norms supplied by Kouzes and Posner with their LPI theory and scoring manual. With only one exception, the mean scores for all groups of students sampled fell into the "moderate" range. This indicates that these scores fall between the thirtieth and seventieth percentiles, based on a norming group of seven hundred and fifty student leaders. Gold level students

Table 11
Summary of Conclusions

Relationship Examined	Leadership Behavior	Conclusions Drawn	Statistical Analysis	p
Initial Leader Behaviors & ELP Entry	Inspiring	Non-ELP-members < New-ELP-members	t-test for independent means	.085
	Encouraging	Non-ELP-members < New-ELP-members		.095
	Challenging	Non-ELP-members < New-ELP-members		.043
ELP Achievement Level & Leadership Behaviors		No conclusions drawn		
ELP Participation & Behavior Change		No conclusions drawn		
ELP Continuation & Behavior Change		No conclusions drawn		
Sex & Leadership Behaviors	Enabling	Men < Women (Non-ELP-members)	Mann-Whitney U	.011
	Modeling	Men < Women (Non-ELP-members)		.048
		Men < Women (Bronze Level members)		.033
	Encouraging	Men < Women (Non-ELP-members)		.023
		Men < Women (Bronze Level members)		.030
Class Standing & Leadership Behaviors	Challenging	Juniors<Freshmen (Non-ELP-members)	Kruskal-Wallis ANOVA	.072
		Juniors<Seniors (Non-ELP-members)		.072

represented the exception where the mean Encouraging score was slightly into the "high" range - over the 70th percentile (Kouzes & Posner, 1992, p. 8).

The second research question was answered using both pretest and posttest LPI scores. The data was analyzed to address the differences between ELP members' and Non-ELP-members' behaviors. It was discovered that differences exist between these groups in the leader behaviors of Inspiring, Encouraging and Challenging. New-ELP-members exhibit these behaviors more frequently than do Non-ELP-members.

The final research question was addressed was performed by examining changes in LPI scores from the beginning of the academic year to the end. No conclusions were drawn from this inquiry.

Supported Hypotheses

The first set of conclusions from this research involved program entry. It was concluded that New-ELP-members exhibit the leadership practices Inspiring Shared Vision, Encouraging the Heart, and Challenging the Process more frequently than the general Grand Valley student population. This is important in several ways. It indicates that those students who self-select to become ELP members exhibit more leader behaviors from the outset. This could be important to future employers, graduate institutions, or other parties interested in a student's potential to assume leadership positions.

The conclusion that New-ELP-members more frequently exhibit leader behavior than the general student population supports Kimmich's (1992) assertion that colleges draw on a small pool for potential leaders. If these new members already exhibit more leadership practices, then they represent a subgroup of GVSU students - those with previous development in leadership. This could be important in determining how we market our leadership training efforts. Recruitment efforts for ELP, and possibly similar programs, are reaching or appealing to previously developed leaders. If a program's mission is to provide leadership training to all students, recruiting students for leadership training may mean finding ways to reach those who do not already identify themselves as leaders.

One lens through which to view this information is the general perception of opportunities held by students at GVSU. A climate survey was conducted by the Dean of Students Office in 1995, one year prior to the current study. Fifty-eight percent of the students sampled agreed that there were adequate leadership opportunities on campus. Seven percent disagreed and thirty-five percent did not know or had no opinion. Forty-two percent, a considerable portion of the students surveyed, were unaware of leadership opportunities or had no opinion.

A second set of conclusions related to sex and leadership behaviors. Among the undergraduate GVSU student body, it was concluded that women exhibited more frequent leader behaviors than men for Enabling Others to Act, Modeling the Way, and Encouraging the Heart. Similarly, among Bronze level achievers, women

exhibited more frequent leader behaviors than men for Modeling the Way, and Encouraging the Heart.

In their 1994 study, Posner and Brodsky found that female subjects perceived themselves as engaging in three leadership practices more than their male counterparts. The three practices were Enabling, Modeling and encouraging - the same three found more frequently in female Non-ELP-members in the current study. In Posner and Brodsky's study, these differences were not confirmed by the leaders' constituents. In other words, the self measures differed from constituent measures and the authors concluded that no differences existed. Based solely on self measurements and without constituent measures for comparison, the current study's conclusions should be tempered by Posner and Brodsky's findings. They do, however, support Poinsette (1981) and Anthony-Gonzalez (1981) descriptions of leader development differing for women.

These conclusions are directly relevant to the development of leadership training programs. In light of these findings, it may be necessary for student development professionals to consider providing different training opportunities for men and women. Alternatively, training which targets Encouraging the Heart skills and Modeling the Way skills may be more necessary for male program participants. These findings provide support and incentive for further investigation of leader skill differences between genders.

The last conclusion drawn from this study concerns leader behavior and class standing. Among Non-ELP-members, it was found that Juniors exhibited less frequent leader behaviors than both Freshmen and Seniors. It was thought that class standing, an indicator of longer college experience and more years of personal development, might predict different leader behaviors. These results both support and contrast such a notion. Viewing class standing as an indicator of exposure to more leadership development opportunity and potentially increased development, it is intuitive that Juniors would practice leader behaviors less frequently than Seniors. It is counter-intuitive on the other hand, that Juniors would practice leader behaviors less frequently than Freshman. Such findings provide good rationale for continued inquiry into the development of leader behaviors.

Unsupported Hypotheses

Perhaps more important than the conclusions drawn from this study are the hypotheses for which support was not found. No conclusions were drawn regarding the relationship between ELP Achievement levels and leader behaviors. No conclusions were drawn regarding participation in ELP and leader behaviors. No conclusions were drawn between continuation in the ELP program and leader behaviors. It should not be inferred that the lack of conclusions in these hypotheses indicates that ELP does not effect students. There are several possibilities which would explain the inability of the current study to draw conclusions.

The possibility exists that ELP participation does relate to development of leadership practices, but that the measures utilized herein were not effective in identifying or measuring those practices. It is also possible, if not likely, that ELP develops skills in participants which do not correlate directly with the leader practices outlined by Kouzes and Posner's LPI. It was stated earlier that some of ELP's training initiatives correlate more closely with managerial skills than with leadership skills (Cosgrove, 1988). If ELP influences such management skills, a different study might evaluate that influence.

Another possibility is that the development of the leadership concept within ELP influences other measures of leader abilities than behavior. Bass (1981) identified many different conceptions of leadership. In the current study, leadership was not studied in the current research as a focus of group process, as personality and its effects, as a power relationship, or as an instrument of goal achievement. ELP or similar training programs may relate to one or more of these conceptual frameworks.

Limitations of the Study

While care was taken to ensure that the results of this research were widely applicable, one attribute of the study may affect its validity. Disparity in LPI administration was made necessary by the inaccessibility of the students sampled. Most students in this study received mailed instruments and instructions while some were administered in person. Care was taken to insure that the same information and

instructions were supplied to both groups of students. If students understood the LPI differently, however, it could have affected their resultant scores.

Many leadership training programs involve an eclectic approach similar to ELP, but many are more narrow in approach. Generalization of the results of this study to other institutions should be done with caution. Furthermore, the participants in this study represent the student body of a public, mid-sized institution. Application of these findings to very different types of student populations may or may not be appropriate.

While one of the purposes of the study was to describe the influence of ELP on its members, it is acknowledged that the study design creates some difficulties in determining cause and effect. Non-ELP-members and New-ELP-members may not have been completely comparable groups from the outset. In a truly experimental situation, like subjects (or randomly assigned subjects) would be exposed to a treatment and their results compared. In this case, the subjects may not have been equivalent. Additionally, this design is unable to account for any experiences of Non-ELP-members which might have been similar to ELP activities during the academic year.

Recommendations for Further Research

Further research on the ELP program and similar programs is necessary to evaluate the effectiveness of training formats. One procedural improvement would

be to strategically account for staggered program admission (late sign-ups). In the current study, there were many New-ELP-members who entered the program after the orientation session. It would increase the sampling representation to include those students in future studies or to alter the program such that late entrants were not allowed. If the opportunity existed in future studies, it is recommended that all students receive instruments and instructions simultaneously and in person.

The present study dealt solely with the behaviors of members. Participation in a leadership training program such as ELP may have a significant impact on members' knowledge of leadership concepts as well as on their behavior. Further research could investigate this potential learning effect.

Another recommendation for future research is to examine individual components of the ELP approach. ELP represents an eclectic format in leadership training including retreats, seminars, mentorship, and active participation in other student groups. It may be possible to isolate effective and ineffective components of such an eclectic program and thereby enhance future training efforts. Comparison of several programs with different, narrower formats might be one way to accomplish this objective.

Finally, it would be helpful to examine students' conceptions of leadership as opposed to management. Cosgrove (1988) points out that we frequently use these terms synonymously, but that the concepts are distinct in current literature. While both are necessary to become an effective individual, differing intended outcomes

should utilize different training approaches. With that rationale, it would make sense to separate our training efforts in management from those in leadership.

Appendix A

**Western Michigan University Human Subjects
Institutional Review Board Approval Letter**



WESTERN MICHIGAN UNIVERSITY

78

Date: August 20, 1995

To: Paul McKimmy

From: Richard Wright, Chair

A handwritten signature in cursive script, reading "Richard A. Wright".

Re: HSIRB Project Number 95-08-18

This letter will serve as confirmation that your research project entitled "A study of student leadership behaviors in Excellence in Leadership, a leadership development program at Grand Valley State University" has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you must seek specific approval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: August 20, 1996

xc: Charles Warfield, EDLD

Appendix B

Grand Valley State University Human Subjects Review Committee Approval Letter



1 CAMPUS DRIVE • ALLENDALE MICHIGAN 49401-9403 • 616/895-6611

80

July 25, 1995

Paul McKimmy
Housing
103 STU

Dear Paul:

Your proposed project entitled "A Study of Student Leadership in ELP" has been reviewed. It has been approved as a study which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,

A handwritten signature in cursive script that reads 'Paul Huizenga'.

Paul Huizenga, Chair
Human Research Review Committee

Appendix C
Demographic Data Sheet

Demographic Data Sheet

Your participation in this study is absolutely confidential. Your individual scores will never be reported with any identification (including your Student Number). By completing the information below, you acknowledge that your participation in this study is voluntary.

1. Student Number (*or last 6 digits*): _____
2. Current Class Standing (circle one): *Freshman / Sophomore / Junior / Senior*
3. ELP Achievement level (circle one): *None / Bronze / Silver / Gold*
4. Sex (circle one): *Male / Female*
5. The group or organization on which I will focus when completing this instrument is:

(*You may use a club, class, team, etc. If you have no group experience, use "in general"*)

My affiliation with this group was (circle one):

Pretty Weak / Loose / Moderate / Strong / Very Strong

Appendix D
Pretest Administration Guidesheet

Pretest Administration Guidesheet

- If questions are raised at any point, either respond with a restatement from this guidesheet, the LPI instructions, or with "Let me not answer that question prior to responding to the instrument." -

Hi everyone, my name is Paul McKimmy. I am cooperating with the Student Life Office in a study researching the ELP program. The purpose of the study is to examine the leadership practices of students in ELP. This study should help us evaluate the ELP program and assist other schools in creating similar programs. I'd like to take a little over five minutes of your time to assist with this study.

I'm about to hand out two items: a demographic data sheet and an instrument called the Leadership Practices Inventory. Your responses will be kept confidential and will never be reported with your name or student number. At the end of this year, we will be discussing your responses on this instrument in relation to your learning about leadership. I will be able to discuss your personal profile of leadership practices and discuss some ways of improving your leadership capabilities.

I want you to know that your participation in this study is completely voluntary and that refusal to participate will not effect your standing in ELP. If you are uncomfortable with participating for any reason, you may do either of the following: do not take a handout or take a copy and do not fill out the demographic data sheet.

Does everyone have something to write with?

(Pass out pencils to those who do not)

Let's look at the demographic data sheet first. Please fill in all 5 items. For item 3, circle your achievement level in ELP as of today. For item 5, please think of a group or organization in which you have been a member. If you have been involved in several groups or organizations, choose the one with which you felt most strongly affiliated. Please focus on your behaviors in that group as you respond to the enclosed Leadership Practices Inventory (LPI).

The LPI asks you to describe your own behaviors in a group setting. You can follow along on page 1 as I read the instructions

(Read instructions from LPI page 1)

Please respond to the items on pages 2 and 3.

- Allow sufficient time for everyone to complete the LPI and stop writing -

Thank you all for your participation. Please make sure that the demographic data sheet is still attached to your LPI. I'll come around and collect them from you. If anyone has questions about this study or how the data will be used, please contact me at 895-3084.

- Write name and phone number on blackboard or easel -

Appendix E
Posttest Administration Guidesheet

Posttest Administration Guidesheet

- If questions are raised at any point, either respond with a restatement from this guidesheet, the LPI instructions, or with "Let me not answer that question prior to responding to the instrument." -

Hi everyone, my name is Paul McKimmy. You probably recall that I am cooperating with the Student Life Office in researching the ELP program. Earlier this year, we collected some information from you on your leadership practices. We'd like to ask you for your input one last time. Your participation should take only five minutes. By looking at prior responses and year-end responses, we can determine how ELP students have changed over a year. This should help us evaluate the ELP program and assist other schools in creating similar programs.

I'm about to hand out two items: a demographic data sheet and an instrument called the Leadership Practices Inventory. Later today, we will discuss leadership practices and some ways of improving your leadership capabilities.

Your responses will be kept confidential and will never be reported with your name or student number. Again, I want you to know that your participation in this study is completely voluntary and that refusal to participate will not effect your standing in ELP. If you are uncomfortable with participating for any reason, you may do either of the following: do not take a handout or take a copy and do not fill out the demographic data sheet.

Does everyone have something to write with?

(Pass out pencils to those who do not)

Let's review the demographic data sheet first. Please fill in all 5 items. For item 3, circle your achievement level in ELP as of today. For item 5, please think of a group or organization in which you have been a member. If you have been involved in several groups or organizations, choose the one with which you felt most strongly affiliated. Please focus on your behaviors in that group as you respond to the enclosed Leadership Practices Inventory (LPI).

The LPI asks you to describe your own behaviors in a group setting. You can follow along on page 1 as I read the instructions

(Read instructions from LPI page 1)

Please respond to the items on pages 2 and 3.

- Allow sufficient time for everyone to complete the LPI and stop writing -

Thank you all for your participation. Please make sure that the demographic data sheet is still attached to your LPI. I'll come around and collect them from you. If anyone has questions about this study or how the data will be used, please contact me at 895-3084.

- Write name and phone number on blackboard or easel -

Appendix F
Pretest Telephone Script

Pretest Telephone Contact Script

Hi,

May I speak with *student*?

(If *student* is unavailable)

I'm calling from Grand Valley Student Life Office, is there a better time I could call back?

(Assuming *student* can talk now)

Hi, *student*, my name is Paul McKimmy and I'm calling from the Student Life Office at Grand Valley about a survey we're conducting on the ELP program. Are you familiar with ELP?

(if no) ELP is a program for student leadership training.

I am coordinating a study of students participating (and not participating) in the ELP program. I wanted to let you know about a letter I'll be mailing to you in the next few days. It's a short questionnaire and I wondered if you'd be willing to help me out by completing it?

(if yes) Great! Your perspective as someone NOT involved in the program is will help me take a close look at the program. The letter should be there in the next few days and it has a stamped return envelope to mail it back. Thanks for your help!

(if no) Is there some other information you'd like about this project before deciding? I'd be happy to answer any questions you might have.

Appendix G
Posttest Telephone Script

Posttest Telephone Script

Hi,

May I speak with *student*?

(If *student* is unavailable)

I'm calling from Grand Valley Student Life Office, is there a better time I could call back?

(Assuming *student* can talk now)

My name is Paul McKimmy and I'm calling from Grand Valley's Student Life Office. You might remember that we were in contact about seven months ago regarding a study on student leadership behaviors at GVSU. I wanted to talk to you again about that study. We need to get responses one last time in order to look at how students have changed over the course of the year. I'll be mailing a similar packet to you in the next few days. Your input would be very valuable to the study. Would you be willing to help out one final time?

(if yes) Great! Thanks again. You'll get that packet right away. You might be interested that your input on the study would allow me to provide you with a personalized profile on your leadership practices. I would also be able to suggest ways to enhance your leadership capabilities. My phone number will be in your packet. After you send it back, just give me a call and we can set it up.

(if no) You might be interested that your input on the study would allow me to provide you with a personalized profile on your leadership practices. I would also be able to suggest ways to enhance your leadership capabilities. Would you be interested in that?

(if yes) Super. My phone number will be in your packet. After you send it back, just give me a call and we can set it up.

(if no) May I ask, for my records, why you don't want to be a part of this study?

Thanks, I really appreciate your time.

Appendix H
Follow-up Telephone Script

Follow-up Telephone Script

Hi,

May I speak with *student*?

(If *student* is unavailable)

I'm calling from Grand Valley Student Life Office, is there a better time I could call back?

(Assuming *student* can talk now)

My name is Paul McKimmy, I called a few weeks ago about a study we're doing on student leadership behaviors at Grand Valley. Did you receive the packet that I mentioned last time I called?

(if no) I'm sorry. I have _____ recorded as your current address. Is that correct?

(if no) Could I have your correct address to mail you another packet?

(if no) May I ask, for my records, why you do not wish to be a part of this study?

(if yes) Thanks, I'll make sure it gets to you right away.

(if yes) Well, I will mail you a second packet right away.

(if yes) Great. Will you be sending it in soon or should I mail you a second packet?

(if sending) Thanks. I really appreciate your help with this project. Have a great day!

(if requesting a second packet) Thanks, I'll make sure it gets to you right away.

(if other) Is there some other information you'd like about this project? I'd be happy to answer any questions you might have.

Thanks for your help!

Appendix I
Second Follow-up Telephone Script

Second Follow-up Telephone Script

Hi,

May I speak with *student*?

(If *student* is unavailable)

I'm calling from Grand Valley Student Life Office, is there a better time I could call back?

(Assuming *student* can talk now)

This is Paul McKimmy, I called from Grand Valley recently about a study we're doing on student leadership behaviors at Grand Valley. Since I didn't receive your survey back in the mail, I'm calling again to ask for your assistance. Have you sent in the packet you received?

(if no) If you still have the packet, would you be willing to help me out by sending it in?

(if no) For my records, can I ask why you do not wish to participate in the study?

(if no, packet is lost) May I send you another ones?

(if yes) Great, you're really helping us out.

(if yes) Great, I'm sure I'll receive it soon. You're really helping us out.

Thanks for your time!

Appendix J
Pretest Cover Letter to Students

September 15, 1995

Student Name
Student Address
City, State, Zip

Dear *Student Name*,

The GVSU Student Life Office is currently researching the leadership practices of students participating (and not participating) in the ELP program (ELP). The research will be used to evaluate the results of ELP participation. You have been identified to represent a group of fellow students who are not affiliated with ELP. Consequently, we are writing to request a few minutes of your time. Your involvement should take only 5 minutes and would be greatly appreciated. Your responses will be kept confidential and will never be reported with your name or student number.

Enclosed is a demographic data sheet which will help us analyze your valued input. Please take a moment to fill it out. For item 5, please think of a group or organization in which you have been a member. If you have been involved in several groups or organizations, choose the one with which you felt most strongly affiliated. Please focus on your behaviors in that group as you respond to the enclosed Leadership Practices Inventory (LPI).

The LPI is a brief instrument that asks you to describe your own behaviors in a group setting. Please read the instructions on page 1 thoroughly and respond to the items on pages 2 and 3.

When you are done, please return the LPI and demographic data sheet in the enclosed self-addressed, stamped envelope.

Thank you...your help is greatly appreciated!

H. Bart Merkle
Associate Provost & Dean of
Students

Paul B. McKimmy
Research Coordinator
(616) 895-3084

Appendix K

Follow-up Cover Letter to Students

Follow-up date

Student Name

Student Address

City, State, Zip

Dear Student Name,

Recently, we called you regarding current research on GVSU's ELP Program (ELP). The research is to be used in evaluating the results of ELP participation. We also sent a packet to you requesting a completed questionnaire to help with the study. Unfortunately, we didn't hear back from you. Because you were selected to represent a group of fellow students with no ELP affiliation, only you can help out.

Please take a moment to assist us, your assistance will take only 5 minutes. Your responses will be kept confidential and will never be reported with your name or student number.

Enclosed is a demographic data sheet which will help us analyze your valued input. For item 5, please think of a group or organization in which you have been a member. If you have been involved in several groups or organizations, choose the one with which you felt most strongly affiliated. Please focus on your behaviors in that group as you respond to the enclosed Leadership Practices Inventory (LPI).

The LPI is a brief instrument that asks you to describe your own behaviors in a group setting. Please read the instructions on page 1 thoroughly and respond to the items on pages 2 and 3.

When you are done, please return the LPI and demographic data sheet in the enclosed self-addressed, stamped envelope.

Thank you...your help is greatly appreciated!

**H. Bart Merkle
Associate Provost & Dean of
Students**

**Paul B. McKimmy
Research Coordinator
(616) 895-3084**

Appendix L

Posttest Cover Letter to Students

April 1, 1995

Student Name
Student Address
City, State, Zip

Dear *Student Name*,

Earlier this year, you participated in a research study of GVSU student leadership behaviors. We are writing to request your input one final time. Your responses will be kept confidential and will never be reported with your name or student number. By looking at prior responses and year-end responses, we can determine how GVSU students have changed over a year.

You may wish to learn more about your leadership practices as described by this study. After May 1, contact Paul McKimmy at 895-3084. You will be provided with an in-person explanation of your scores, their relation to other students, and methods you could employ to enhance your leadership capabilities.

Enclosed is a demographic data sheet which will help us analyze your valued input. For item 5, please think of a group or organization in which you have been a member. If you have been involved in several groups or organizations, choose the one with which you felt most strongly affiliated. Please focus on your behaviors in that group as you respond to the enclosed Leadership Practices Inventory (LPI).

The LPI is a brief instrument that asks you to describe your own behaviors in a group setting. Please read the instructions on page 1 thoroughly and respond to the items on pages 2 and 3. When you are done, please return the LPI and demographic data sheet in the enclosed self-addressed, stamped envelope.

Thank you...your help is greatly appreciated!

H. Bart Merkle
Associate Provost & Dean of
Students

Paul B. McKimmy
Research Coordinator
(616) 895-3084

BIBLIOGRAPHY

- Accepting the leadership challenge. (1995, September). Campus Commentary, 2, 3-4.
- Allen, K. E. (1992). Creating a new agenda for student leadership development. In S. A. Boatman (Ed.), Supporting student leadership. (pp. 210-214). Columbia: National Association for Campus Activities.
- Anthony-Gonzalez, M. L. (1981). Designing leadership programs for college women. In D. C. Roberts (Ed.), Student leadership programs in higher education. (pp. 113-118). Carbondale: American College Personnel Association.
- Anthony-Gonzalez, M. L. & Fiutak, T. (1981). Evaluation of leadership programs. In D. C. Roberts (Ed.), Student leadership programs in higher education. (pp. 187-207). Carbondale: American College Personnel Association.
- Arminio, J. (1993). Racial identity as development theory: Considerations for designing leadership programs. Campus Activities Programming, 25(8), 40-46.
- Barsi, L. M., Hand B. E. & Kress, J. L. (1985). Training effective student leaders - Back to the basics. NASPA Journal, 22(4), 26-30.
- Bass, B. M. (1981). Stogdill's handbook of leadership: A survey of theory and research - revised and expanded edition. New York: The Free Press.
- Bennis, W. & Nanus, B. (1985). Leaders: The strategies for taking charge. New York: Harper & Row Publishers.
- Blachly, M. & Heitschmidt, D. (1992). Sequential leadership development. In S. A. Boatman (Ed.), Supporting student leadership. (pp. 130-132). Columbia: National Association for Campus Activities.
- Black, A. J. (1993). Application of person-environmental interaction theories to student retreats. Campus Activities Programming, 26 (6), 42-45.
- Bradley M. J. & Brown, L. E. (1989). Enhancing leadership development through the low adventure experience. Campus Activities Programming, 22(5), 48-5458-61.

- Breeze-Mead, A. (1991). Competencies of student leadership. Campus Activities Programming, 23(9), 58-62.
- Brown, R. D., Citrin, R. S., Pflum, G. & Preston, M. (1978). Is higher education receptive to a student development transcript? A national survey of campus administrators. Journal of College Student Personnel, 18, pp. 291-297.
- Burns, J. M. (1978). Leadership. New York: Harper & Row Publishers.
- Caruso, R. & Boyar, J. H. (1981). Community college student leaders. In D. C. Roberts (Ed.), Student leadership programs in higher education. (pp. 154-159). Carbondale: American College Personnel Association.
- Chickering, A. W. (1972). Education and identity. San Francisco: Jossey-Bass Publishers.
- Conner, C. E. (1992). Effects of a leadership training course on participant self-perception of leadership style effectiveness (Doctoral dissertation, Western Michigan University, 1992). Dissertation Abstracts International, 53, 3429.
- Cooper, J. (1994, September). ELP. (Available from Student Life, Kirkhof Center, 1 Campus Drive, Allendale, MI 49401)
- Cooper, J. (1995, September). ELP. (Available from Student Life, Kirkhof Center, 1 Campus Drive, Allendale, MI 49401)
- Cosgrove, T. (1986). Is anybody out there: The results of the cocurricular transcript survey. Campus Activities Programming, 19(4), 58-61.
- Cosgrove, T. (1988). Cleaning up our language about leadership. Campus Activities Programming, 21(3), 40-45.
- DeJulio, S. S., Larson, K., Dever, E. L., & Paulman, R. (1981). The measurement of leadership potential in college students. Journal of College Student Personnel, May.
- Fiedler, F. E. & Chemers, M. M. (1984). Improving leadership effectiveness: The leader match concept. New York: John Wiley & Sons, Inc.
- Fink, R. A. (1992). Leadership, culture and change on the college campus. In S. A. Boatman (Ed.), Supporting student leadership. (pp. 62-65). Columbia: National Association for Campus Activities.

- Freeman, F. H., Gregory, & Clark (Eds.). (1986). Leadership education: A source book. Greensboro: Center for Creative Leadership.
- Gordon, S. E. & Sindon, N. A. (1989). Sources of additional information in the area of leadership development. NASPA Journal, 27(1), 80-88.
- Jones, J. D., Carson, D. K. & Guy, W. T. (1979). Alternative methods of assisting students in developing leadership skills. NASPA Journal, 17(2), 49-57.
- Hersey, P. & Blanchard, K. (1977). Situational leadership. LaJolla: Learning Resource Corporation.
- Hinkle, D. E., Wiersma, W. & Jurs, S. G. (1994). Applied statistics for the behavioral sciences. Boston: Houghton Mifflin Company.
- Hirschorn, M. W. (1988, April 13). "Leadership" programs, with doses of self-absorption and idealism, strike responsive chord in students. The Chronicle of Higher Education, pp. A39-A41.
- Jones, J. D., Carson, D. K. & Guy, W. T. (1979). Alternative methods of assisting students in developing leadership skills. NASPA Journal, 17(2), 49-57.
- Kelly, K. E. & Caruso, R. (1981). Seminars, workshops, retreats, and conferences. In D. C. Roberts (Ed.), Student leadership programs in higher education. (pp. 51-73). Carbondale: American College Personnel Association.
- Kimmich, C. M. (1992). Trawling for leaders: Campus leadership development at Brooklyn college. Liberal Education, 78(5), 26-29.
- Kline, P. & Saunders, B. (1993). Ten steps to a learning organization. Arlington: Great Ocean Publishers.
- Kouzes, J. M. & Posner, B. Z. (1987). The leadership challenge: How to get extraordinary things done in organizations. San Francisco: Jossey-Bass Publishers.
- Kouzes, J. M. & Posner, B. Z. (1988). The leadership practices inventory. San Diego: Pfeffer and Company/University Associates.
- Kouzes, J. M. & Posner, B. Z. (1992). Leadership practices inventory student version: Theory, scoring, and interpreting. Monte Sereno: Kouzes Posner International, Inc.

- Leppo, J. (1992). Students teaching students leadership: Peer leadership training programs. In S. A. Boatman (Ed.), Supporting student leadership. (pp. 141-146). Columbia: National Association for Campus Activities.
- Maslow, A. H. (1970). Motivation and personality. New York: Harper & Row, Publishers Inc.
- McIntire, D. D. (1989). Student leadership development: A student affairs mandate. NASPA Journal, 27(1), 75-79.
- Owens, R. G. (1991). Organizational behavior in education. Boston: Allyn and Bacon.
- Poinsette, S. (1981). Soar at will: Women in leadership learning. In D. C. Roberts (Ed.), Student leadership programs in higher education. (pp. 119-125). Carbondale: American College Personnel Association.
- Posner, B. Z. & Brodsky, B. (1992). A leadership development instrument for college students. Journal of College Student Development, 33, 231-237.
- Posner, B. Z. & Brodsky, B. (1994). Leadership practices of effective student leaders: Gender makes no difference. NASPA Journal, 31(2), 113-120.
- Posner, B. Z. & Kouzes, J. M. (1988). Development and validation of the leadership practices inventory, Educational and Psychological Measurement, 48 (2), 483-496.
- Posner, B. Z. & Kouzes, J. M. (1993a). Leadership practices inventory: A self-assessment and analysis.
- Posner, B. Z. & Kouzes, J. M. (1993b). Psychometric properties of the leadership practices inventory - updated. Educational and Psychological Measurement, 53(1), 191-199.
- Randall, G. (1996, March). Student Services Survey Summary. (Available from Dean of Students Office, STU, 1 Campus Drive, Allendale, MI 49401)
- Rockingham, C. (1990). Student Leadership Development Program. (ERIC Document Reproduction Service No. ED 321 650).
- Rost, J. C. & Cosgrove, T. J. (1987). The politics of student leadership. Campus Activities Programming, 20 (2), 36-40.

- Schoenberg, R. (1990). Academic leadership: Growing our own. Liberal Education, 76(1), 2-5.
- Shandley, T. C. (1989). The use of mentors for leadership development. NASPA Journal, 27(1), 59-66.
- Staff (1989). Wholeness model: An educational challenge for the 90's. (Available from Health, Recreation & Wellness, Fieldhouse, 1 Campus Drive, Allendale, MI 49401).
- Staff (1994). Grand valley state university: At a glance. (Available from Admissions, Student Services Building, Grand Valley State University, Allendale, MI 49401).
- Stogdill, R. M. (1974). Handbook of leadership. New York: The Free Press.
- Wells, R. L. (1988). Designing a leadership retreat. Campus Activities Programming, 21 (2), 56-63.
- Yukl, G. A. (1989). Leadership in organizations. Englewood Cliffs: Prentice Hall.
- Zey, M. G. (1991). The mentor connection: Strategic alliances in corporate life. New Brunswick: Transaction Publishers.