

THE EFFECTS OF SERVICE LEARNING ON LEADERSHIP LIFE SKILLS OF 4-H MEMBERS

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Abstract

In 1999, 32% of public schools at all levels had implemented an active service learning program. With the rapid growth of this model over the last 10 years, it is essential that more information be provided that evaluates the effectiveness of the program in developing youths' leadership life skills. To test this model, a randomized post-test only control group experimental design, utilizing a control group and two treatment groups, was conducted to determine the effects of service learning on the development of leadership life skills in youth. The treatment groups consisted of a group that reflected on a past service activity and a group that conducted a service activity that day, with immediate reflection on the activity. Findings showed that participants, who engaged in immediate reflection following the service activity, had a significantly higher level of development in the areas of contributor to community and personal leadership development. No significant differences were found on the remaining effective team skills, being a self-directed learner, and creative problem solving subscales.

Introduction and Theoretical Framework

Fritz and Brown (1998), drawing on the works of prominent leadership theorists (Gardner, 1993; Kouzes & Posner, 1990; Bolt, 1996), stated that we are entering the twenty-first century with a dramatic deficit of leaders. They go on to cite Bolt's (1996) "contention that this deficit is not a deficit of leadership, but a deficit in leadership development" (p. 57). This lack of leadership skills is most noticeable in teens. Scheer notes that leadership life skills are essential for young people to feel satisfaction and contribute to society (1997). Sawi and Smith (1997) define leadership life skills as leadership, teamwork, decision-making, problem solving, reasoning, and communication as well as personal qualities such as responsibility, self-esteem, and integrity. The authors also note that these skills and competencies are among those identified in the Secretary's Commission on Achieving Necessary Skills (SCANS) report.

How do youth acquire leadership life skills? Green (1992) noted that while many people learn leadership as they go, in an unplanned and serendipitous way, it is also possible not to learn from experience or by observing others. She concludes, "The central question, then, for developing effective leadership is how can these efforts be made deliberate and purposeful rather than accidental or serendipitous" (p. 59). More purposeful methods need to be employed. Leadership educators agree that leadership can be taught (Bennis, 1989; Bass & Avolio, 1994; Kouzes & Posner, 1990). Proponents tout service learning as an effective method for teaching leadership life skills.

Service learning is a method under which students learn through active participation in meaningful, organized community service. Students provide a purposeful service to the community and to society while engaging in reflection activities that pertain to their learning curricula (Giles, Honnet & Migliore, 1991). Three elements are necessary to make

service learning effective: 1) Adequate preparation that includes the setting of objectives for knowledge to be gained or skills to be learned by the participants, 2) performance of meaningful community service; service that improves the community or makes a difference in someone's life, and 3) analyzing the service experience through guided discussion or reflective writing. Thinking about the service creates a greater understanding of the experience.

For many students, it takes this final component for them to realize the impact of their service and understand what they have really learned through the process. In a 1993 study, Eyler and Giles (1999) found that the "quality and quantity of reflection was most consistently associated with academic learning outcomes: deeper understanding and better application of subject matter and increased knowledge of social agencies, increased complexity of problem and solution analysis, and greater use of subject matter knowledge in analyzing a problem" (1999, p.173).

There has been a rapid growth in the use of this model in the past 10 years. In 1999, 32% of public schools at all levels had implemented an active service learning program. Among youth in 1996, 27 percent of students in grades 6 through 12 reported that at least part of their community service experience was incorporated into their curriculum in some way (Kleiner & Chapman, 1999). Such findings indicate that America has increasingly attempted to promote community service and to use service experiences to improve student education.

Limited research has demonstrated that service learning can be effective in helping students develop new attitudes and knowledge, as well as leadership life skills. The *Search Institute* studied youth's perceptions of service learning experiences during the 1993-94 school year. Their findings revealed that 54% of the youth "felt highly involved in what they were doing" (Blyth, Saito & Berkas, 1997). They felt that they had made a significant difference in their community. Israel and Ilvento (1995) observed that students participating in a service learning project in Florida

gained new knowledge, developed a broader view of problems in their community, and gained a greater appreciation for serving their community. Boyd (2001) also noted that service learning programs made an impact on inner-city teens' development of leadership life skills, notably in the areas of decision-making and working with others. Dorman (1997) found that academic growth and community service were positively correlated.

Though research has shown that service learning has some impact on participants, a greater understanding of the process and potential outcomes of service learning is still needed. Because the number of service learning programs is increasing, more information is needed to evaluate the effectiveness of the program in developing youths' leadership life skills.

Purpose

The purpose of this study was to determine the effects of service learning on the development of leadership life skills in 4-H Roundup participants. The objectives were to:

1. Describe 4-H Roundup participants by leadership life skills.
2. Determine the effects of service learning on the development of effective team skills.
3. Determine the effects of service learning on the development of self-directed learner.
4. Determine the effects of service learning on the development of contributor to community.
5. Determine the effects of service learning on the development of creative problem solver.
6. Determine the effects of service learning on the development of personal leadership development.

Methods

Experimental Design

This study was conducted using a post-test only control group experimental design, consisting of two treatment groups and one

control group. Because the time between a pretest and posttest was minimal, and to reduce the risk of instrumentation error, a post-test only design was chosen (Gall, Borg, & Gall, 1996). Mortality was a threat to internal validity. Mortality is the possibility of losing research participants during the experimental portion of the study. To minimize the threat of mortality, participants were randomly assigned to a control and two treatment groups. To encourage participation a drawing for prizes was conducted. Given the short-time nature of the study, mortality did not occur. Because a purposive sample was used, caution is warranted when generalizing findings to other groups. Replication with other groups would strengthen the generalizability of the findings.

A pilot test was conducted with 4-H members not included in the sample to estimate reliability of the items in each subscale. Fourteen 4-H members completed the questionnaire. Reliability was estimated by calculating Cronbach's alpha on each subscale: Effective Team Skills ($r = .70$); Self-Directed Learner ($r = .72$); Contributor to Community ($r = .85$); Creative Problem Solver ($r = .76$); and Personal Leadership Development ($r = .71$). To ensure face and content validity of the instrument, a panel of experts consisting of five university faculty members with expertise in the field reviewed the questionnaire. As a result of this review, minor wording and ordering changes were made to the instrument.

Population and Sample

The population for this study was all 4-H members attending the 2001 4-H Roundup. Roundup is an annual week-long 4-H activity. Members who have previously qualified at the county and district level compete at the state level in 38 individual and team contests. 4-H Roundup participants were purposively selected and were assumed to have had past community service experiences. A random sample of 200 4-H Roundup participants were invited to participate in the study. Sixty-seven Roundup participants agreed to take part in the study.

Instrumentation

Based on a review of literature, an instrument was developed to measure participants' perceived leadership life skills, type and amount of previous community service, and selected personal characteristics (Isaksen, Dorval, & Treffinger, 1994; Juntune, 1999; Dorman, 1997; Townsend & Carter, 1983). The first section of the instrument was designed to gather data on participants' leadership life skills. Each skill was categorized into one of five areas: effective team skills, being a self-directed learner, contributor to the community, creative problem solver, and personal leadership development. The participants were asked to indicate their level of agreement with each statement using a six-point Likert-type scale. The points on the scale were: 1=Strongly Disagree; 2=Disagree; 3=Slightly Disagree; 4=Slightly Agree; 5=Agree; and 6=Strongly Agree. The second portion of the questionnaire was designed to gather data about the participants' type and amount of prior community service and personal characteristics.

Experimental Procedures

Data were collected during June 2001. One week prior to data collection, the researchers held a training session for the 10 volunteers assisting in the experimental portion of the study. To ensure treatment fidelity, the researchers observed the volunteer facilitators during the data collection process.

According to Gall, Borg, and Gall (1996), two threats to forming and maintaining equivalent treatment groups are withholding the treatment from the control group and faulty randomization procedures. To minimize these threats, the following procedures were followed. As participants entered the theater, their names were checked off of a registration list. They were then asked to choose a colored index card out of a bag. A credible witness observed the bag of cards from which the participants chose their colored card. Blue, green, and yellow cards were used to randomly assign the students to the respective groups for the data collection. The service/reflection treatment group received yellow cards. The

reflection only treatment group received blue cards. Green cards were issued to the control group. Participants were escorted into the theater and monitored to ensure that they sat according to their colored index card and to ensure that they did not change groups. The researchers gave a brief introduction of the study to participants, but further information about the groups was not given until they had arrived at their respective rooms.

The service/reflection treatment group (yellow card) was dismissed first from the theater with four trained volunteer facilitators. This group consisted of 22 participants. Upon arrival at the reserved room, the participants were asked to sit and received instructions. Ten 5th grade students and an adult sponsor from the local Boys and Girls Club were also in this group. Two volunteer facilitators gave instructions about the literacy service project that was to take place between the 4-H participants and Boys and Girls Club students. Nametags were made and given to each of the students in the room. The 4-H members were instructed to first get into pairs and find a Boys and Girls Club student to work with for the one-hour service activity.

Students created self-advertisements as a get-acquainted activity. This activity took approximately 20 minutes to complete. Next, books from the public library were given to each group. Boys and Girls Club students read books to the research participants. Each group discussed the books' main points and main characters. After 25 minutes of reading and discussion, Boys and Girls Club students and the research participants were asked to clean their work areas. The Boys and Girls Club students and their supervisor were dismissed for the day.

The research participants remained in the room and were divided into three equal groups. The groups separated into different classrooms and met with a trained volunteer facilitator for the reflection portion of the service learning. Each group reflected on and orally discussed their service experience with the Boys and Girls Club in detail for 30 minutes. Then, the facilitators asked participants for written reflection on their service experience with the Boys and Girls

Club students. Upon completion of the oral and written reflection, the yellow group completed a copy of the research questionnaire.

The reflection only treatment group (blue card) was dismissed next from the theater and escorted to a separate building on the campus. This group consisted of 22 participants. Students were given nametags and divided into three groups. A facilitator was assigned to each group. Participants were asked to reflect on a past community service experience. Each group reflected on and orally discussed their past service experiences for 30 minutes. Then, facilitators asked the students for written reflection on their past service experiences. Upon completion of the oral and written reflection, the reflection only group completed the research questionnaire.

The control group (green card) remained in the theater to complete their portion of the study. Trained facilitators gave each participant a copy of the questionnaire to complete. They were dismissed upon completion of the survey.

Findings

A majority of participants were female (60%). The age distribution was evenly distributed from 15-19 years old. Fifteen participants (22.4%) were 15 years old. More than half of the participants (52.2%) lived in a rural/farm area. Twenty-three participants (34.3%) lived in a town with less than 10,000 people. Only nine (13.4%) came from a city with more than 10,000 residents. Nineteen participants (28.4%) completed 0-3 hours of community service per month. Seventeen participants (25.4%) completed 4-6 hours of community service per month. Sixteen participants (23.9%) completed 7-9 hours of community service per month. Fifteen participants (22.4%) completed 10+ hours of community service per month. Thirty participants (45.5%) reported the majority of their community service each month as being indirect help (i.e. collecting canned goods, picking up trash). The remaining participants (54.5%) participated in primarily direct help activities (serving meals, visiting nursing homes). One participant in the study had

not completed any previous community service.

Objective 1

The first objective was to describe Texas 4-H Roundup participants by leadership life skills. Participants were asked to respond to 33 statements. These statements described leadership life skills in the following five areas: effective team skills; being a self-directed learner; contributor to the community; creative problem solver; and personal leadership development. Table 1 contains the questions and descriptive data for the effective team skills subscale. Seventy-five percent of participants either “agreed” or “strongly agreed” with all of the statements on the effective team skills scale. While more than 65% of participants responded that they “agreed” or “strongly agreed” with eight of the statements, only 37% “agreed” or “strongly agreed” with the statement, “I can keep written records.” Mean scores were computed by summing all

items in each subscale. The mean score for 4-H participants was 45.1, which was the high mean score of the five subscales. Overall, participants tended to have a high self-perceived level of effective team Skills.

The questions and descriptive data for the self-directed learner subscale are shown in Table 2. Eighty-one percent of the participants either “agreed” or “strongly agreed” with the statements in the self-directed learner subscale. This indicates that most of the participants have a high self-perceived ability to be a self-directed learner. Eighty-eight percent of the participants “agreed” or “strongly agreed” with the statement “I enjoy learning when my experiences pertain to real life.” The lowest percentage (71.6%) was the statement “I like to discover new knowledge on my own.” 4-H participants’ mean score on this subscale was 25.9. Overall, participants tended to “agree” or “strongly agree” with the self-directed learner subscale statements.

Table 1
Level of Texas 4-H Roundup Participants’ Agreement With Effective Team Skills Statements

<i>Effective Team Skills</i>	Strongly Disagree		Slightly Disagree		Slightly Agree		Agree		Strongly Agree			
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>		
I can follow directions.	0	0.0	0	0.0	1	1.5	5	7.5	21	31.3	40	59.7
I can get along with others who are different from me.	0	0.0	0	0.0	0	0.0	8	11.9	32	47.8	27	40.3
I encourage others.	0	0.0	0	0.0	1	1.5	8	11.9	32	47.8	26	38.8
I can get my ideas across.	0	0.0	0	0.0	1	1.5	11	16.4	31	46.3	24	35.8
I cooperate with others.	0	0.0	0	0.0	4	6.0	8	11.9	31	46.3	24	35.8
I accept other people as they are.	1	1.5	1	1.5	3	4.5	13	19.4	23	34.3	26	38.8
I can lead a discussion.	0	0.0	3	4.5	5	7.5	12	17.9	19	28.4	28	41.8
I trust other people.	1	1.5	1	1.5	5	7.5	16	23.9	23	34.3	21	31.3
I can keep written records.	1	1.5	9	13.4	11	16.4	21	31.3	14	20.9	11	16.4
Total	3	0%	14	2%	31	5%	102	17%	226	37%	227	38%

Note. Scale 1=Strongly Disagree to 6=Strongly Agree; Participant Score, *M*=45.1, *SD*=4.6

Table 2
Level of Texas 4-H Roundup Participants' Agreement With Self-Directed Learner Statements

	Strongly Disagree		Disagree		Slightly Disagree		Slightly Agree		Agree		Strongly Agree	
	f	%	f	%	f	%	f	%	f	%	f	%
<i>Self-Directed Learner</i>												
I enjoy learning when my experiences pertain to real life.	0	0.0	0	0.0	3	4.5	5	7.5	21	31.3	38	56.7
I learn more when in the planning process of the learning experience.	0	0.0	1	1.5	0	0.0	9	13.4	30	44.8	27	40.3
I use past experiences when I am learning something new.	1	1.5	1	1.5	0	0.0	9	13.4	23	34.3	33	49.3
I understand the significance to life of what I learn.	0	0.0	0	0.0	2	3.0	16	23.9	30	44.8	19	28.4
I like to discover new knowledge.	1	1.5	0	0.0	2	3.0	16	23.9	25	37.3	23	34.3
Total	2	0%	2	0%	7	2%	55	16%	129	39%	140	42%

Note. Scale 1=Strongly Disagree to 6=Strongly Agree; Participants Score, $M=25.9$, $SD=2.6$

Table 3 contains questions and descriptive data for the contributor to community subscale. A high average of 84% of participants either “agreed” or “strongly agreed” with the contributor to community statements. Most 4-H members perceive themselves as being active in the community and feel that they make a difference in their respective communities. Ninety-one percent of the participants “agreed” or “strongly agreed” with the statement “I can make a difference in my community.” The mean score for this subscale for 4-H participants was 41.8, which was the second highest score of the five subscales. Overall, participants tended to “agree” or “strongly agree” with the contributor to community subscale statements.

Table 4 contains questions and descriptive data for the creative problem solver subscale. Only an average of 49% of the participants either “agreed” or “strongly agreed” with the statements on the creative

problem solver subscale. While participants “agreed” or “strongly agreed” with three statements on this subscale, only 37.3% “agreed” or “strongly agreed” with the statement, “I solve problems in ways they have never been solved before.” The mean score for 4-H participants was 22.0; the lowest mean score of the five subscales. Most participants tended to “slightly agree” or higher with the creative problem solver subscale statements.

Personal leadership development statements and descriptive data are shown in Table 5. Eighty-eight percent of the participants either “agreed” or “strongly agreed” with the personal leadership development statements. This was the highest percentile of each of the subscales on the questionnaire. 4-H participants’ mean score for this subscale was 32.6. Overall, participants tended to “agree” with the personal leadership development statements.

Table 3
 Level of Texas 4-H Roundup Participants' Agreement With Contributor to Community Statements

<i>Contributor to Community</i>	<u>Strongly Disagree</u>		<u>Slightly Disagree</u>		<u>Slightly Agree</u>		<u>Agree</u>		<u>Strongly Agree</u>			
	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	
I can make a difference in my community.	0	0.0	0	0.0	0	0.0	6	9.0	27	40.3	34	50.7
Having a chance to serve makes me a stronger part of my community.	0	0.0	0	0.0	1	1.5	5	7.5	27	40.3	34	50.7
Community service makes me think about real life in new ways.	0	0.0	1	1.5	3	4.5	6	9.0	31	46.3	26	38.8
I feel a responsibility to serve my community.	0	0.0	1	1.5	1	1.5	10	14.9	28	41.8	27	40.3
Helping others has biased the way I live my life.	1	1.5	0	0.0	2	3.0	9	13.4	31	46.3	24	35.8
I will continue to volunteer after high school	0	0.0	0	0.0	1	1.5	11	16.4	21	31.3	34	50.7
Serving others helps me better understand my community.	0	0.0	0	0.0	5	7.5	10	14.9	27	40.3	25	37.3
Leaders should be required to serve their community.	2	3.0	1	1.5	3	4.5	10	14.9	17	25.4	34	50.7
Total	3	0%	3	0%	16	3%	67	13%	209	40%	238	44%

Note. Scale 1=Strongly Disagree to 6=Strongly Agree; Participant Score, $M=41.8$, $SD=4.7$

Table 4
Level of Texas 4-H Roundup Participants' Agreement With Creative Problem Solver Statements

<i>Creative Problem Solver</i>	<u>Strongly Disagree</u>		<u>Disagree</u>		<u>Slightly Disagree</u>		<u>Slightly Agree</u>		<u>Agree</u>		<u>Strongly Agree</u>	
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>
When solving a problem, I generate many possible solutions before making a decision.	1	1.5	3	4.5	7	10.4	17	25.4	21	31.3	18	26.9
I consider all choices before solving a problem.	0	0.0	1	1.5	8	11.9	23	34.3	23	34.3	12	17.9
I clearly define a problem before generating possible solutions.	0	0.0	5	7.5	11	16.4	17	25.4	23	34.3	11	16.4
I follow a process to solve a problem.	0	0.0	5	7.5	15	22.4	15	22.4	19	28.4	13	19.4
I solve problems in ways they have never been solved before.	1	1.5	4	6.0	3	4.5	34	50.7	22	32.8	3	4.5
Total	2	0%	18	5%	44	13%	106	32%	108	32%	57	17%

Note. Scale 1=Strongly Disagree to 6=Strongly Agree; Participant Score, $M=22.0$, $SD=3.9$

Table 5
Level of Texas 4-H Roundup Participants' Agreement With Personal Leadership Development Statements

<i>Personal Leadership Development</i>	<u>Strongly Disagree</u>		<u>Disagree</u>		<u>Slightly Disagree</u>		<u>Slightly Agree</u>		<u>Agree</u>		<u>Strongly Agree</u>	
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>
Helping others increases my awareness of other's needs.	0	0.0	1	1.5	1	1.5	3	4.5	30	44.8	32	47.8
I can be a leader when I serve other's needs.	0	0.0	0	0.0	1	1.5	5	7.5	20	29.9	41	61.2
I learn from others.	0	0.0	0	0.0	2	3.0	5	7.5	14	20.9	46	68.7
I feel comfortable acting as a leader when helping others.	0	0.0	0	0.0	2	3.0	6	9.0	18	26.9	41	61.2
Serving others helps me grow as a leader.	0	0.0	0	0.0	2	3.0	7	10.4	23	34.3	35	52.2
I am positive about my abilities.	0	0.0	0	0.0	4	6.0	10	14.9	27	40.3	26	38.8
Total	0	0%	1	0%	12	3%	36	9%	132	33%	221	55%

Note. Scale 1=Strongly Disagree to 6=Strongly Agree; Participant Score, $M=32.6$, $SD=2.9$

Objectives 2-6

The second through sixth objectives of the study were to determine the effects of service learning on the development of leadership life skills. This objective was attained by computing an Analysis of Variance (ANOVA) between each of the leadership life skills subscale total scores for the control group, reflection after elapsed time treatment group, and immediate reflection treatment group. Tukey's post hoc test was used to quantify the difference.

Table 6 describes the analysis of variance of summated leadership life skills scores of 4-H Roundup participants by treatment group. This ANOVA identified a significant difference between the leadership life skills subscales of the control and two treatment groups. The groups were as follows: control, reflection after elapsed time, and immediate reflection after the service activity. F signifies the correlation coefficient depicting the difference between the treatment groups and each leadership life skills subscale.

There was a significant difference in the

participants' self-perceived skills as contributors to the community, $F(2, 64) = 4.10, p < .05$, between the control and treatment groups ($M^c = 39.7, SD^c = 6.0; M^{ir} = 43.5, SD^{ir} = 3.3$). This difference shows that the immediate reflection treatment significantly increased the participants' desire to contribute to the community. This difference was significant.

A significant difference was also shown between the treatment and control groups for participants' self-perceived development of Personal Leadership Skills ($M^c = 31.2, SD^c = 3.6; M^{ir} = 33.2, SD^{ir} = 2.1$). This difference, $F(2, 64) = 3.10, p < .05$, indicates that the immediate reflection treatment was significant in the increase of 4-H participants' self-perceived personal leadership development. This difference was significant over the control group.

No difference was shown between treatment and control groups for the subscales Effective Team Skills $F(2, 64) = .15, p > .05$; Being a Self-Directed Learner, $F(2, 64) = 1.30, p > .05$; and a Creative Problem Solver, $F(2, 64) = 1.80, p > .05$.

Table 6
Leadership Life Skills Scores of Texas 4-H Roundup Participants by Treatment Group

<i>Group</i>	<i>f</i>	<i>M</i>	<i>SD</i>	<i>F</i>
<i>Effective Team Skills</i>				
Control	23	44.8	5.5	0.15
Reflection after elapsed time	22	45.1	4.3	
Immediate reflection	22	45.5	4.2	
<i>Self-Directed Learner</i>				
Control	23	25.2	3.4	1.30
Reflection after elapsed time	22	26.1	2.2	
Immediate reflection	22	26.3	1.7	
<i>Contributor to Community</i>				
Control	23	39.7	6.0	4.10*
Reflection after elapsed time	22	42.1	3.8	
Immediate reflection	22	43.5	3.3	
<i>Creative Problem Solver</i>				
Control	23	20.9	3.9	1.8
Reflection after elapsed time	22	23.0	3.8	
Immediate reflection	22	22.2	3.8	
<i>Personal Leadership Development</i>				
Control	23	31.2	3.6	3.10*
Reflection after elapsed time	22	32.7	2.4	
Immediate reflection	22	33.2	2.1	

Note. *M* = Summated leadership life skills scores; **p* < .05

Conclusions and Recommendations

Objective one was to describe 4-H Roundup participants by leadership life skills. Participants in the study generally perceived themselves to have relatively high leadership life skills. More than 75% of the participants either “agreed” or “strongly agreed” with four of the five subscales: effective team skills (75%), self-directed learner (81%), contributor to community (88%), and personal leadership development (88%). 4-H members were weakest on the creative problem solver subscale. On average, participants only “slightly agreed” with the statements in this subscale.

Objectives two through six sought to determine the effects of service learning on the development of effective team skills, being a self-directed learner, being a contributor to community, creative problem Solving skills, and personal leadership development. 4-H members who had completed the service learning model with immediate reflection after the service had significantly higher self-perceived personal leadership and contributor to community skills. The treatment of service learning with immediate reflection was effective in increasing students’ leadership skills and their perception of the importance of community contribution over the control group. It may be concluded that reflection

immediately following a service activity has the most significant impact on leadership life skill development, especially in the areas of personal leadership and community contribution. An implication also exists that the reflection component of the service learning model is crucial in the development of certain leadership life skills. Reflection encourages students to talk and/or write about the service that they have completed. The service activity completed by the participants and the reflection discussions that followed focused on personal leadership and community development. Students shared their thoughts and in turn, had higher self-perceived scores in the personal leadership development and contributor to community categories.

Several recommendations for action and further research can be made as a result of this study. Service learning has demonstrated its effectiveness in increasing students' perceived leadership life skills. Youth organizations should implement service learning as part of their curriculum because it is successful in increasing certain leadership and community development skills. Reflection has the most impact immediately after the service project has been completed. As service learning programs are implemented by youth organizations, it is recommended that reflection activities be conducted immediately after the service activity when possible to ensure that participants in the project develop increased meaning from the service learning project. It is recommended that when youth organizations, teachers, etc. want youth to demonstrate higher contributions to community and personal leadership development behavior, they should be encouraged to participate in a service learning project that includes immediate reflection.

The completion of this study raised several additional questions that require further study. First, the study should be replicated. The service activity and reflection should focus on all five of the identified leadership life skill subscales. This could help determine the effect of service learning on all of the subscales. In addition, the study should be replicated with more participants. An increased sample

population might show significant differences in leadership life skills between immediate and elapsed time reflection. Additional studies are needed to determine the long-term effects of the treatment.

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