

**Determining Increases in Self Efficacy of Participants of the Texas FFA Made for Excellence Conference**

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## Introduction/Need for the Study

Research Priority Three of the American Association for Agricultural Education Research Agenda 2016-2020 calls for a “Sufficient Scientific and Professional Workforce That Addresses the Challenges of the 21<sup>st</sup> Century” (Roberts et al., 2016, p. 29). Soft skills, including leadership skills (Crawford et al., 2011), are one of the top traits employers want their employees to possess (National Research Council, 2012) Students enrolled in secondary agriculture courses can become FFA members and participate in numerous activities designed to develop their leadership skills. Texas FFA conducts leadership workshops designed to accomplish this task (Texas FFA Association, 2019). However, the effectiveness of these workshops has not been researched thoroughly. This study aimed to analyze the effectiveness of one of the Texas FFA’s leadership workshops by comparing the participants’ self-efficacy in 11 objectives before and after the workshop and thus evaluating the effectiveness of the one-day workshop.

## Theoretical Framework

The theory utilized for this study was Bandura’s (1977) Self-Efficacy Theory. Bandura stated that one’s self-efficacy is their belief to accomplish a task or behavior. Self-efficacy influences a person’s actions and outcomes of their actions. Self-efficacy can be learned or modified through 1) emotional arousal, 2) various learning techniques, 3) verbal persuasion, and 4) performance accomplishments. All four of these techniques were used as strategies in this workshop and therefore grounded this study in the Self-Efficacy Theory (Bandura, 1977).

## Methodology

This study used a single-group, pretest-posttest design. Between October of 2019 and January of 2020, Texas FFA hosted seven leadership workshops in different regions of the state. These workshops utilized the same curriculum and were presented by trained facilitators. The facilitators planned multiple activities which utilized all four of the techniques Bandura (1977) claims to modify self-efficacy. The curriculum sought to teach 11 objectives. The facilitators provided the researchers with the objectives and the researchers created statements to gauge the students’ self-efficacy for each of the 11 objectives (one statement per objective). For example the statement created for the objective “Define leadership” was “I am able to define leadership.” A questionnaire was developed which included a Likert-type scale for each statement (1 = Strongly Disagree, 2 = Disagree, 3= Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree). All 210 workshop participants took the pre-test just prior to the workshop starting and took the post-test at the conclusion of the workshop. Data was analyzed using Statistical Package for the Social Sciences (SPSS) version 25. Since the means being compared were from the same group of students, a dependent *t-test*, also called a paired-samples *t-test*, was calculated ( $p < .05$ ) (Field, 2009).

## Results/Findings

A statistically significant difference in the means of the pre-test and post-test self-efficacy scores were found in all 11 objectives. The most significant difference was seen in “I am able to explain how to implement strategies for utilizing my teammates’ strengths.” ( $t = -16.738$ ) and the least significant difference was in “I am able to identify opportunities that match my interests and strengths.” ( $t = -11.894$ ) (See Table 1).

Table 1.

*A Comparison of Pre-Test and Post Test Students Self-Efficacy (N = 210)*

Variable	Pre-Test		Post-Test		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
I can discuss the importance of continual personal growth.	4.69	0.850	5.50	0.597	-13.125	.000
I can develop a plan of action to execute an opportunity in the next year.	4.75	0.852	5.51	0.643	-12.636	.000
I am able to define leadership.	4.77	0.840	5.66	0.558	-15.031	.000
I can recognize areas in my life to develop.	4.87	0.842	5.64	0.554	-13.256	.000
I am able to identify opportunities that match my interests and strengths.	4.86	0.867	5.62	0.616	-11.894	.000
I can discuss leadership and planning topics with others.	4.56	0.953	5.57	0.601	-15.710	.000
I can list my own strengths.	4.69	0.953	5.60	0.636	-13.326	.000
I can list characteristics of a strong leader.	4.92	0.815	5.65	0.577	-13.111	.000
I am able to explain how to implement strategies for utilizing my teammates’ strengths.	4.27	0.967	5.40	0.672	-16.738	.000
I can explain how the choices I make every day are significant to my entire life.	4.66	0.981	5.60	0.619	-12.822	.000
I can explain how to utilize goal setting techniques to capitalize on opportunities.	4.40	1.020	5.56	0.663	-15.832	.000

*Note:* 0 = Strongly Disagree, 1 = Disagree, 2 = Slightly Disagree, 3 = Slightly Agree, 4 = Agree, 5 = Strongly Agree;

## Conclusions/Implications/Recommendations

It can be concluded that this workshop was successful in increasing students’ self-efficacy in all 11 objectives as statistically significant differences in means from the pre-test to the post-test were calculated. This implies the curriculum for the workshop and the teaching strategies used by the facilitators were successful in teaching the target objectives and resulted in higher student self-efficacy. This study did have several threats to internal validity so it cannot be assumed that all gains in self-efficacy were due to participation in the workshop alone (McMillan & Schumacher, 2006). This study should become a longitudinal study of the workshop as with more participants the study will become more rigorous. Further research using qualitative methods could also be conducted to determine what aspects of the workshop participants enjoy and think are effective. It could also identify areas of the workshop that need improvement or that participants do not enjoy. This research could also gauge how much prior research training participants have had and if this impacts the effectiveness of these workshops on them based on a change in self-efficacy from pre-test and post-test data.

## References

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