



A Study of Instructional Effectiveness ***Leadership Skills Development Course*** **Florida Virtual School**

Educational Research
Institute of America

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Executive Summary

Florida Virtual School® (FLVS®) contracted with the Educational Research Institute of America (ERIA) to conduct an efficacy study of an FLVS course entitled, *Leadership Skills Development*. The course was developed jointly by FLVS and Mawi Learning.

Florida Virtual School is an established leader in developing and providing virtual Kindergarten through grade 12 education solutions to students worldwide. As a student works through the modules of a course, he or she will connect with the teacher to take exams online and receive discussion-based assessments over the phone. Students do the work at their own pace and on their own time, but they interact with their teachers in multiple ways--including Live Lessons, phone calls, chat, texting, and email--throughout the course.

The *Leadership Skills Development* course was developed to meet a set of skills and strategies designed specifically for the course as well as Common Core Standards in understanding text. The purpose of this course is to teach leadership skills, goal setting, problem solving, decision making, communication skills, group dynamics, time and stress management, public speaking, human relations, public relations, team building, and other group processes.

There were three specific activities that formed the total evaluation of this course. The first was a review of the research literature regarding the key topics or concepts upon which the course is based. **After the research review was completed it was evident that the conclusions of the research are reflected in the *Leadership Skills Development* course.**

A second activity included the standard setting for one of the two major assessments used in the course. The standard setting process was conducted by an independent moderator and employed the Bookmarking method of arranging test items from easiest to most difficult to assist committee members in determining cut scores. Using the established cut scores, the student performance data was analyzed. **The results indicated very high student performance with the majority of students scoring at an advanced level.**

A third activity was an anonymous student survey which sought students' reactions to the course, whether they would be applying the skills and strategies they had learned, and whether specific strategies had been adequately taught. Approximately 400 students completed a survey that included both close-ended questions and open-ended questions. **Student responses indicated very strong support for recommending the course, for how it had been taught, and an intention to use the strategies they had been taught. Most importantly, students recognized how the skills and strategies can help them now and in the future.**

Overview of the Study

Carefully constructed studies are needed to determine the efficacy of online courses as these courses continue to expand and provide an important education opportunity to all students. The enrichment of a student's educational opportunities through online courses can help to prepare the student for the demands of post-secondary education and the workplace. In addition, FLVS provides an invaluable service to those students who cannot otherwise attend a brick-and-mortar school. FLVS has developed a unique approach to online course instruction that combines excellent online resources accompanied by significant support and guidance from teachers.

Carefully planned and thoughtfully implemented efficacy studies are very important if they are to assist in improving education. Descriptive analyses of data, student surveys, research reviews, and student performance analyses are all important aspects of a comprehensive efficacy study. These various procedures must be planned with a thorough understanding of the program's goals and structure.

Research Questions

Three research questions were developed from discussions with staff from the *Florida Virtual School (FLVS)*, *Mawi Learning*, and the *Educational Research Institute of America (ERIA)*.

The three research questions focus on the design of the study and the data analyses:

1. *Does existing research support the design and content of the Leadership Course?*
2. *Do students achieve adequate levels of success on assessments designed as outcome measures of student knowledge and achievement?*
3. *Do students have positive views of what is taught in the course, how well the course concepts have been taught, and how the skills and strategies can help them now and in the future?*

Course Description

The *Leadership Skills Development* course is described by FLVS as follows:

The purpose of this course is to teach leadership skills, goal setting, problem solving, decision making, communication skills, group dynamics, time and stress management, public speaking, human relations, public relations, team building, and other group processes.

The content includes, but is not limited to, the following:

- study in self-understanding
- development in such areas as goal setting, self-actualization, and assertiveness
- study of organizational theories and management

In this course, students will acquire new power to succeed in high school, college, and life. Students will learn how to take action by pressing their *Turbo Button*, manage their time by staying in the *Lasting Zone*, chart their goals by creating a *North Star*, and using many other proven leadership techniques developed by *Mawi Learning*, a leadership training organization that has worked with more than 1 million students. Whether students are struggling or already at the top of their game, *Leadership Skills Development* will give them new power to create the life of their dreams.

Research Base for the *Leadership Skills Development* Course

Staff from *Mawi Learning* and ERIA, with the guidance and review of FLVS staff, developed an outline of the key topics and skills on which the course was based. This list focused almost entirely on non-cognitive factors explained more fully below. A research review was conducted to find the most significant published research on each topic. Finally, the results of these studies were compared to the *Leadership Skills Development* course, and it was found that the course content and structure embody the research base.

Overview of the *Leadership Skills Development* Course Non-Cognitive Factors

Since the *No Child Left Behind Act of 2001* and other accountability mandates at federal, state, and local levels, educators—researchers, policy makers, school administrators, and teachers—have been focused largely on students’ content knowledge and performance as outlined by standards and measured by test scores. During that same period, there has been an accumulation of evidence related to U.S. students’ lack of social and behavioral skills necessary for success in school, along with continually increasing concerns about violence and bullying in schools (Jones & Bouffard, 2012). Now, a new movement is underway to better understand and cultivate non-cognitive factors that impact academics and the practices and programs schools should engage in to best prepare students for success in the 21st century.

Non-cognitive factors are a person’s emotional, psychological, and social attributes; attitudes; habits; and skills. The factors are distinct from a person’s intellect but significantly influence it—and combined, cognitive and non-cognitive abilities, are a predictor of a person’s future success and stability (Heckman, 2008). “While the nature of the relationships and various pathways between academic behaviors and other non-cognitive factors is not yet entirely clear, the connection between academic behaviors and academic performance is strong.” (Farrington et al, p. 16)

“Non-cognitive factors” is just one term for—or one way of viewing—this set of competencies. Some see these factors more as traits than skills, or as part of “character development” or “values education.” Long ago, non-cognitive factors might have been called “virtues.” Non-cognitive factors might be taught as part of “social/emotional learning,” as part of intervention programs, or embedded within a curriculum with the aim to help students manage their emotions, attain greater self-awareness or self-control, reduce stress, resolve conflicts, establish and maintain positive relationships, or set and attain goals. Non-cognitive factors may also be a focus of professional development for staff.

Nomenclature aside, these intrapersonal and interpersonal traits are the subject of the current work of a number of prominent individuals and organizations collaborating on research and initiatives funded by public agencies and private foundations. Interdisciplinary in its draw across fields—from economics to neuroscience to psychology to health, as well as, of course, education—the movement has garnered attention in TED talks, academic journals, professional conferences, and best-selling books, including Paul Tough’s *How Children Succeed: Grit, Curiosity, and the Hidden Power of Character*, which, following its publication in 2012, spent 12 weeks on *The New York Times* best seller list. And now this movement is driving policy and directions for further research.

Nobel Prize winning economist James Heckman spawned the burgeoning research into non-cognitive factors that impact education. His research in the 1990s of the GED program led him to questions regarding the personality traits that contribute to success and then, in the early 2000s, collaborations with social scientists that examined the effects of early childhood interventions. Heckman found that non-cognitive skills had a lasting impact on the children’s lives. Several prominent psychologists, including Carol Dweck and Angela Duckworth, have also contributed greatly, via their research, writings, and speeches, to the increased attention and understanding of non-cognitive traits.

Up until a decade ago, most teaching and assessment of non-cognitive skills ended in preschool; 49 states have standards for the social-emotional development of its youngest citizens. However, informed and inspired by new research findings, education policymakers at state and national levels have more recently adopted and expanded Kindergarten-12 social-emotional learning standards and programs to better support students and prevent academic and behavioral problems. Currently three states—Illinois, Kansas, and Pennsylvania—have Kindergarten-12 standards for social-emotional learning. Additionally, social-emotional learning is integrated into the Common Core State Standards, which have been adopted by 45 states and the District of Columbia. (Dusenbury et al., 2014; Jones & Bouffard, 2012)

Recent reports of research findings and recommendations by high-profile committees have also focused on the significance of these non-cognitive factors in positive educational, career, and health outcomes and how the educational community can best foster students’ development of the factors. Such reports have included “Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century” from the Committee on Defining Deeper Learning and 21st-Century Skills, and published by the National Research Council in 2012 as well as the U.S. Department of Education Office of Education Technology’s “Promoting Grit, Tenacity, and Perseverance: Critical Factors for Success in the 21st Century” in 2013.

Non-cognitive skills have also entered the realm of large-scale testing. In August 2013, the U.S. Department of Education approved an Elementary and Secondary Education Act (ESEA) waiver

application from the California Office to Reform Education (CORE), authorizing eight participating school districts to design and implement a new accountability and continuous improvement system called the School Quality Improvement Index, which will be used with a million students to assess school performance as a function of academic outcomes (60 percent), school climate and culture measures (20 percent), and social-emotional measures (20 percent). The social-emotional domain of the assessment will comprise administrative data, such as attendance and suspensions, and measures of students' social-emotional skills (Fensterwald, 2014; McNeil, 2013). This shift in testing policy reflects the views of the Director of the Department of Education Institute of Educational Sciences, John Easton: "The test score accountability movement has pushed aside many of these so-called 'non-cognitive' or 'soft' skills, and they belong back on the front burner." (U.S. Department of Education Office of Information Technology, 2013, p. 1)

At the federal level, as of this time, The Academic, Social, and Emotional Learning Act of 2013 (H.R. 1875) has been introduced as bipartisan legislation to expand the availability of evidence-based programs that teach students social and emotional skills such as self-control, goal-setting, collaboration, conflict resolution, and problem-solving. Bill co-sponsors cite the more than two decades of scientific research demonstrating how these skills improve academic achievement and promote positive school climate. "Social and emotional competencies aren't 'soft skills,'" explained Rep. Tim Ryan (D-Ohio), who introduced the bill currently co-sponsored by Representatives Dave Loebsack (D-Iowa), Tom Petri (R-Wis.), and Matt Cartwright (D-Pa.). "They are essential skills. They are the foundation for all the other skills young people need to be successful in school and in life." (Collaborative for Academic, Social, and Emotional Learning, 2014)

In accounting for the integral role of non-cognitive factors, it is critical to acknowledge the malleability of these traits. From the Duckworth Lab's research statement: "words like 'character' or 'personality trait'—may connote to some immutability. However, it is now well-established that traits change across the life course...children and adults change their habitual patterns of interacting with the world as they accumulate additional life experience."

As established by the decades of work conducted by Dr. Duckworth and other researchers—work that is driving the policies cited above—social-emotional-psychological traits can be taught effectively and can be cultivated and nurtured within students of all backgrounds. Indeed, in a meta-analysis of the outcomes of 213 social and emotional learning (SEL) interventions, Durlak and colleagues (2011) found the following positive effects in students who participated in such SEL programs versus peers who did not:

- increased pro-social behaviors and decreased conduct problems;

- improved academic performance (averaging scores of 11 percentile points higher on standardized tests);
- improved attitudes about the self and satisfaction within school community; and
- decreased emotional distress.

Further, citing other researchers as well, Durlak et al. concluded: “through systematic instruction, SEL skills may be taught, modeled, practiced, and applied to diverse situations so that students use them as part of their daily repertoire of behaviors.” (p. 406)

In their review of the research literature on social-psychological interventions, Yeager and Walton (2011) found long-term positive effects that change students’ academic trajectories—and that the most effective and impactful programs:

- actively engage students’ direct participation;
- personalize students’ responses to program content so that the experience is directly relevant and meaningful;
- affirm values and employ a positive persuasive appeal rather than a corrective approach that may instead stigmatize and yield negative outcomes; and
- target multiple social and psychological barriers to learning, as combining interventions can have an additive effect.

Key Non-cognitive Factors

The non-cognitive umbrella encompasses a wide range of social, emotional, psychological, and academic competencies and skills. As many researchers in this area have noted, it can be challenging to separate one or another individual traits as there is a great deal of interconnectedness and influence among them, and the impact such traits have on one another, both positive and negative, is recursive (Farrington et al, 2012)—or what Yeager & Walton (2011) describe as a complex field of forces, a “tension system,” in which behaviors and attitudes interact, promoting some and restraining others. There are a variety of different ways that non-cognitive skills are classified. Some researchers make a distinction between “interpersonal” skills—those needed for positive relationships, such as compliance, cooperation, communication, self-regulation, and “work” skills—those needed for positive learning outcomes, such as planning, organizing, and completing tasks (Jones & Bouffard, 2012).

However, six non-cognitive traits have received particular attention from researchers and policymakers—and are key components within the *Mawi Learning/Florida Virtual School*

Leadership Skills Development course. These include growth mindset, locus of control, goal setting, grit, social intelligence, and delayed gratification – and each is profiled below.

Growth Mindset

Growth mindset, a concept pioneered by renowned psychologist Carol Dweck, is a belief that a person’s intelligence, competence, and talents can be developed through dedicated efforts and hard work. In contrast to a “fixed mindset” in which people see their abilities as immutable, the idea is also linked to attitudes and perceptions regarding success and failure—and the amount of control one thinks he or she has in experiences with either throughout life.

Mindsets—or core assumptions regarding them—have an enormous impact on students’ academic behaviors and achievement and indeed their overall social-psychological well-being (Dweck, 2006; U.S. Department of Education Office of Educational Technology, 2013). According to Farrington et al, (p. 10): “Notably, across the empirical literature, one’s beliefs about intelligence and attributions for academic success or failure are more strongly associated with school performance than is one’s actual measured ability (i.e., test scores).” Mindsets drive how much time and energy and intensity students devote toward their education—and the outcomes of those efforts of course then have a recursive effect, perpetuating a positive or negative cycle as results affirm beliefs (Dweck & Leggett, 1988; Farrington et al, 2012; Snipes et al, 2012). Students with a growth mindset are much more likely to persist in their efforts and overcome challenges (Dweck, Walton, & Cohen, 2011).

There is a growing body of evidence spanning decades and fields of research that suggests that mindsets are malleable; that intervention programs can be effective at altering students’ perceptions of their own success and failure and fostering growth mindsets; and that when students are taught to have a growth mindset, they are more successful academically (Blackwell et al, 2007; Farrington et al, 2012; U.S. Department of Education Office of Educational Technology, 2013; Tough, 2012; Yeager & Dweck, 2012).

Locus of Control and Agency

Locus of control relates to how people perceive the power they have over events affecting them (specifically, whether their control is internal, the result of an individual’s behaviors and actions, or external, largely due to other forces). The concept was developed by psychologist Julian B. Rotter in the 1950s and expanded in ensuing decades. Rotter saw that a person’s locus of control is not an innate personality trait exclusively but instead interdependent upon experiences and environment—factors that also in turn reinforce the locus of control; past rewards and punishments, however perceived, shape future attitudes, expectations, and behaviors. Related to this concept is agency, or action taking. Albert Bandura, Rotter’s contemporary and another widely influential psychologist of the latter 20th century, posited

that a driver of one's actions is self-efficacy—a person's perceived abilities to learn, organize, and execute plans, and fulfill goals—and thereby exercise control over one's circumstances. Bandura saw in people's self-efficacy and sense of agency a similarly complex cycle of social and psychological influences working upon each other in either positive or negative ways. Bandura (2001) stresses how important agency has become in an increasingly socially, culturally, and technologically complex world.

Indeed, a sense of agency is part of the network of other non-cognitive skills impacting on students' academic success (Farrington et al 2012), and by building agency, students entering secondary level education in particular utilize effective strategies and cultivate positive attitudes that help them navigate common barriers to success in and outside the classroom (Raikes Foundation, 2012). Students who use problem solving skills to overcome obstacles and make responsible decisions about school and work do better academically (Zins & Elias, 2006 in Durlak et al, 2011). Conversely, students who lack self-efficacy will often suffer decreased motivation and academic self-regulation, as well as devalue academic tasks (Cleary & Zimmerman, 2004).

Goal Setting

For the past few decades, goal theory has been the focus of a number of influential researchers in the field of educational psychology, including Dweck, Pintrich, Schunk, Winne, and Zimmerman. While the topic is broad and complex, there is consensus that goal orientation drives outcomes. Especially when part of a process of self-regulated learning that both entails and encourages strategic thinking and metacognition, goal setting and monitoring have been linked to high levels of motivation and achievement (Farrington et al, 2012; Cleary & Zimmerman, 2004).

Embedding goal setting and ongoing monitoring of progress in meeting those goals as essential components in the learning process is an approach that educators can use to help students become more goal oriented, and better able to fulfill goals (Winne & Hadwin, 1998 in U.S. Department of Education Office of Educational Technology, 2013). Zimmerman (2002) advocates for—and sees great promise in modeling: “Each self-regulatory process or belief, such as goal setting, strategy use, and self-evaluation, can be learned from instruction and modeling by parents, teachers, coaches, and peers.” (p. 69)

Grit

Psychologist Angela Duckworth, who in recent years has put “grit” on the public radar, defines it in her TED talk on the topic as “passion and perseverance for very long-term goals...sticking with your future...and working really hard to make that future a reality.” Grit has been cited by researchers such as Dr. Duckworth and colleagues, policy makers, philanthropic foundations,

educators, economists, and others concerned with the state of education and future prospects for the nation’s young people, as essential to success in school and beyond (Farrington et al, 2012). As mentioned earlier, in 2013 the U.S. Department of Education Office of Educational Technology issued a report titled “Promoting Grit, Tenacity, and Perseverance: Critical Factors for Success in the 21st Century” as part of an initiative to shift focus to the broader skills and attitudes on which achievement depends.

Duckworth and colleagues (2007, 2009) developed the Grit Scale, a brief self-reporting evaluation that the researchers found to be reliably predictive of success in endeavors as far ranging as the National Spelling Bee, high-level college GPAs at Penn, and intensive summer training at West Point—more reliably predictive, in fact, than a protracted military evaluation and IQ (Duckworth et al, 2010 and 2011; Tough, 2012).

And yet Duckworth—as proclaimed in the research statement on the Duckworth Lab website—and others have found that grit is a trait that, rather than being immutable within a person’s character, can be cultivated and increased through positive socio-cultural context as well as intervention initiatives (U.S. Department of Education Office of Educational Technology, 2013).

Social Intelligence

It is universally accepted that social intelligence is essential for success in school and beyond. Some of the most influential thinkers in the field of education, such as Dewey (1938) and Vygotsky (1978), long ago established that learning is a social process and that students build understandings in significant part from their interactions with others. In the 1990s, Howard Gardner identified a set of interpersonal skills as one of his game-changing “multiple intelligences” and Robert Slavin produced a body of evidence attesting to the benefits of cooperative learning for students of all ability levels. More recent research has shown that social skills are predictive of academic achievement and that social-emotional competencies are vital for adults to enjoy positive and productive experiences in workplaces, communities, family and other relationships, and in general health and well-being (Durlak et al, 2011; Farrington et al., 2012; National Research Council, 2012; Simonsen et al, 2012; Jones & Bouffard, 2012).

Research also shows that social skills can be intentionally developed and generate positive results—with greater gains even more likely for at-risk students (Jones & Bouffard, 2012; Simonsen et al, 2012). In their widely cited 2011 meta-analysis of 213 social-emotional learning (SEL) intervention programs, Durlak et al found that social skills such as emotions recognition, stress management, empathy, problem solving, or decision making can be intentionally developed through effective programs. “Through systematic instruction, SEL skills may be taught, modeled, practiced and applied to diverse situations so that students can use them as part of their daily repertoire of behaviors... Quality SEL instruction also provides students with opportunities to contribute to their class, school, community and experience the satisfaction,

sense of belonging, and enhanced motivation that comes from such involvement.” (pp. 406-407)

Delayed Gratification and Self-Control

Delayed gratification and self-control were perhaps most famously researched by Walter Mischel and colleagues (1983, 1989, 1990) in their “marshmallow studies” that found “the amount of time preschoolers could delay the impulse to eat a marshmallow placed in front of them was correlated not only with their SAT scores many years later, but also their emotional coping skills in adolescence” (in U.S. Department of Education Office of Educational Technology, 2013). A 2011 follow up, confirmed the stability of the resistance to temptation as a predictive measure of success—but additionally noted the importance of environmental cues, specifically social ones, in children’s enacted impulses versus delayed gratifications.

Along with grit, Angela Duckworth has found that self-control has a predictive power greater than talent on objectively measured success outcomes (Duckworth Lab Research Statement, 2011). Duckworth views the two traits as having critical time-scale distinctions: whereas grit enables people to pursue challenging goals over the long term, self-control involves the conscious, voluntary regulation of behavioral, emotional, and attentional impulses—the deliberate delay of gratification—in the much shorter term (Duckworth, 2011; Duckworth, et al, 2007; MacCann, Duckworth, & Roberts, 2009). “A major reason for students falling short of their intellectual potential [is] their failure to exercise self-discipline.” (Duckworth and Seligman, 2005, p. 939)

Duckworth (2009) built upon Mischel’s work to show that children who could delay gratification in this way enjoyed a generally greater sense of well-being—they were happier, more relaxed, and handled stress more effectively; further longitudinal studies conducted by Duckworth and colleagues showed multiple correlations between self-control and positive social, emotional, and psychological conditions. Moffit et al (2011) found self-control as having implications for physical and psychological health—and a lack thereof correlating with substance dependence, personal finance, and criminal offenses. Diamond and Lee (2011) found that in young children, impulse control is central to the development of all executive functions.

Connecting the Non-cognitive Research Findings to the *Leadership Skills Development Course*.

In both approach and content, the *Leadership Skills Development* course exemplifies the research principles discussed above.

Instructional Approach

This online learning course utilizes a three-pronged process to teach students a range of non-cognitive skills.

1. **Engaging Content:** The course leverages the full power of technology using dozens of custom videos and interactives, dynamic assessments, and strong “hooks” to engage students and bring non-cognitive skills to life.
2. **Instructor Certification:** Instructors go through an upfront certification process that gives them fluency with the key non-cognitive skills taught in the course. Certification ensures that instructors impact students from day one.
3. **Focus on Application:** Throughout the course, students are relentlessly challenged to immediately apply the course principles in their lives, making learning highly personal and relevant.

When students are presented with engaging training, led by well-prepared instructors, and apply the course principles to their lives, students experience marked growth.

Instructional Content

The course covers a wide range of non-cognitive skills. The six skills that form the backbone and predominant focus of the course are: Growth Mindset, Locus of Control, Grit, Goal-Setting, Social Intelligence, and Delayed Gratification. Here is how these six skills are presented:

Growth Mindset From the start, students learn that success is not fixed for any of us. Success does not come from immutable factors such as one’s innate intelligence, life circumstances, or socioeconomic background. Instead, students learn that they have leadership power, or “power that comes from how one thinks and acts.” Every student has this leadership power because every student can shape how they think and act. Students get continuous Growth Mindset training throughout the course. They learn the following definitions for success and failure: *Success is any time I take action to grow. Failure is any time I do nothing to grow.*

Locus of Control and Agency Locus of Control and Agency are taught through a metaphor called the “Turbo Button.” The Turbo Button represents the power that anyone has to take action to improve his/her own life or the life of others. Just as in a video game, where a Turbo Button gives extra power, students who hit their “Life Turbo Button” wield new power to

succeed academically and in their own life. In every part of the course, students are challenged to hit their Turbo Button and apply what they are learning.

Goal-Setting One entire module covers all aspects of goal-setting, including why goals matter in the first place. Students learn how to create MAD Goals™, or “Measurable, Attainable, and Deadline-Driven Goals.” Students also learn how to chart out their goals for every summer and semester of school, whether in high school or college, by creating a North Star.

Grit Three lessons train students to overcome challenges and bounce back from failure by using their “Solution Power.” For example, students learn that everyone will face “Stuck-Points” in life and students learn a variety of techniques to get to “Solution-Points.” The reflection students do to create their North Star goals also gives them a greater sense of *why* what they do matters. Having a strong “Why,” according to Duckworth, helps students persevere in the face of obstacles.

Social Intelligence The course instructs students to use their “Social Power” to build strong relationships, attract mentors, and connect with people of diverse backgrounds. The second half of the course focuses entirely on social intelligence. Students learn how to use both verbal and non-verbal communication, how to resolve conflicts through open communication, and how to contribute to and lead teams.

Delayed Gratification Students learn multiple ways to delay gratification. They learn that success requires “Activation Energy,” or energy that is built up over time from taking small actions, such as doing your homework, for years. Students also learn to differentiate between the Lasting Zone and the Instant Zone. The Lasting Zone consists of things that matter such as health and academic skill, and the Instant Zone of things that bring pleasure in the short term but have no lasting value. Students learn how to map out every week to maximize their time in the Lasting Zone and avoid short-term distractions that prevent long-term success.

Analyzing Student Assessment Performance

A study was undertaken to determine whether students had achieved an understanding of the skills and strategies taught in the course. Since no pretests were available, it was decided that a standard setting process would be used. A standard setting process is one in which a group of educators who are knowledgeable about a course reviews the content of a test and determines scores that would reflect various levels of understanding. These levels are called *Performance Level Descriptors*. This process does not evaluate students' scores rather it reviews test items to determine which items should be answered correctly by students who are administered the assessment. However, after the standards have been set, the standards are then applied to students' scores to determine each student's performance level.

Description of the Assessment

There were two major assessments administered to students during the course. Due to the length of each test, it was decided to use just one of these two assessments to assess student knowledge. The Segment One test was chosen because it seemed to cover most of the major course skills and strategies. The test is described in Table 1.

Table 1
Number of Item Groups and Items for
Leadership Segment One Assessment

	<i>Item Groups</i>	<i>Items</i>
Segment 1 Multiple Choice Items	13	42
Segment 1 Essay Questions	13	39

The *Leadership Skills Development* course Segment One assessment is designed to gauge a student's achievement of the content standards for the course. A student's score on this test, when combined with other assessment results and other direct and indirect measures of accomplishment of course goals, is used to determine the student's final grade in the course.

Each multiple-choice item consisted of four answer options and was scored as right or wrong with one point for each item. The essay questions were scored on scales that ranged from 4 to 8 points for the essay. Thus, the essays were scored from 1 to 4, 5, 6, or 8 score points depending on the scale for each particular essay.

Standard Setting Process

FLVS determined that it would be helpful to provide a criterion-referenced indication of student performance on the Segment One assessment. FLVS had previously developed performance level descriptors which were used as descriptors for other FLVS courses. Since these descriptors seemed to work quite well for the other courses and for reasons of consistency, FLVS concluded it would be best to continue to use the same descriptors for the *Leadership Skills Development* course.

The standard setting performance level descriptors include four levels and are described as follows:

Following extensive discussions both internally and with their ERIA consultants, FLVS decided to use four categories of performance on the assessments. The labels applied to these four categories and the general performance-level descriptors for each of these categories were:

Level 1 - Needs Improvement: The student did not meet most standards, and significant instructional intervention is needed.

Level 2 - Novice: The student meets some standards but needs instructional intervention to achieve a level of competence.

Level 3 - Capable: The student meets most standards and demonstrates competency.

Level 4 - Advanced: The student has mastered the standards and demonstrates exceptional ability.

Standard setting was carried out using a modification of the widely used and extensively researched item-mapping, originally titled the *Bookmark* method, of determining standards. This method was selected for two reasons. First, it is the most commonly applied methodology used in determining student performance standards for educational assessment in the United States. Second, it is a procedure that appeared to lend itself to carrying out the activities virtually—that is, by conducting the necessary panel sessions via telephone and the Internet.

It is important to include panelists who are familiar with the content of the course for which standards are being set. Since the Leadership Skills Development course was a unique course not being offered other than through FLVS or Mawi Learning, it was necessary to have FLVS teachers and Mawi Learning teachers and developers serve as members of the panel. A total of five panelists were invited by FLVS, and all agreed to participate.

The actual standard setting was conducted virtually on March 3 and 4, 2014; sessions were held for a total of approximately five hours on these two days. This did not include the significant

number of hours the judges spent independently reviewing the test items and analyzing the items through three rounds of standard setting.

The item-mapping procedure was chosen primarily due to its overwhelming popularity for determining performance standards for educational tests of this type and its ease of use by panelists. Consistent with typical applications of the procedures, panelists had three opportunities to recommend standards. Following each round of judgments, panelists had an opportunity to share their perspectives and—as desired—individual recommendations with their peer judges. Panelists were shown the (anonymous) recommendations of their peers following each round. Extensive discussions of individual test items, especially those around the interim cut-score recommendations, took place. As is typically the case with item-mapping applications, panelists made their first recommendations without the benefit of seeing student performance data; these results, presented in terms of item-difficulty (p -value) data, were shared between the first and second rounds of judgments and were available for panelists to consider when they made Rounds 2 and 3 recommendations.

The Leadership Skills Development test that is actually administered to each student at the completion of the course segment is assembled automatically and randomly from an extensive item pool assessing each of 89 slots on the test blueprint. Thus, each student is presented with a somewhat-unique set of 89 items which, as a set, assess the identical test blueprint as the test administered to any other student. For making their judgments, panelists used an item difficulty ordered booklet. This booklet was composed of 89 items arranged in an increasingly difficult sequence. The items chosen for use in the ordered-item booklet were those that were closest in difficulty to the mean of the items assessing each of these 89 test-blueprint slots.

Standard Setting Results

Table 2 presents the results of the process, by judge and by round of recommendations. Summary data by round are also shown in the table. The tabled numbers show the highest raw score for each indicated performance category. For example, in Round 3, Judge 1 recommended that scores between 0 and 17 be categorized as *Needs Improvement* (see the 17 under this label for Round 3, Judge 1). Similarly, this judge recommended that scores between 18 and 31 be categorized as *Novice*, that scores between 32 and 68 be categorized as *Capable*, and 69 through 88 be categorized as *Advanced*.

Inspection of the data indicates that, as is typical of standard-setting activities, judges varied somewhat significantly among themselves across all three rounds of the process, although they agreed more closely in Round 3 than in the first round.

Similarly, while individual judges changed their recommendations between rounds, often fairly significantly, the overall central tendency of the recommendations remained fairly constant.

The table also provides standard errors (SE) of the mean for the panel recommendations; these data indicate that the degree of statistical error in the mean panel recommendations is on the order of about two raw-score points.

The median judgments highlighted in the table are considered to be the best representation of the judges' recommendations. Medians are typically preferred over means for such work as medians are less affected by extreme or "outlier" recommendations. In the present case, of course, medians do not differ significantly from means as the tabled data demonstrate.

Table 2
Summary of Panel Recommendation for Standards for the
FLVS Leadership Skills Development Segment 1 Exam by Performance Category

<i>Performance Level Descriptor</i>	<i>Round 3</i>			
	<i>Median</i>	<i>Mean</i>	<i>S.D.*</i>	<i>SE Mean**</i>
Novice	24	22.8	3.1	1.3
Capable	43	42.8	6.1	2.6
Advanced	74	73	3.8	1.6

*Standard Deviation

**Standard Error of the Mean

Recommendation for Standard Setting

An empirical, research-based activity to establish student performance standards for the *Leadership Skills Development* Segment One exam was planned and carried out. The activity was conducted via established, extensively validated procedures involving a panel of five content area experts in the area. After training in the standard-setting methodology, discussion of the performance-level descriptors, and extensive interaction among panelists through two stages of interim recommendations, the panel recommended standards for the exam as summarized in Table 3. The final median ratings are recommended to FLVS as the cut scores to use to rate students' performance. These ratings, which are the median ratings from the final round, are reported in Table 3.

Table 3
Panel Recommendations for Standards for the *Leadership Development Skills Exam*

<i>Performance Category</i>	<i>Exam Raw Scores</i>
Needs Improvement	0 through 23
Novice	24 through 42
Capable	43 through 73
Advanced	74 through 89

Demographic Characteristics of the Student Population

The analyses of the demographic characteristics of the sample are included below. Only those students enrolled in the course and for whom Segment One test results were available are included. Table 4 shows that the population was made up of mostly high school students whose ethnic backgrounds were White, Black, or Hispanic although a sizable percentage were multi-ethnic. The students were primarily enrolled in public schools (70 percent); yet a sizable proportion (21 percent) were being homeschooled. Females outnumbered males by 64 percent to 36 percent. Very few students were of limited English Proficiency or were being taught using Individual Education Plans. However, a significant percentage (27 percent) were eligible for Free or Reduced Lunch Programs.

Table 4*
Demographic Characteristic of Students Comprising the Research Sample

<i>Grade Levels</i>								
	6	7	8	9	10	11	12	13
Number	3	8	28	109	176	187	75	1
Percent	1%	1%	5%	19%	30%	32%	13%	0%

<i>Ethnic Groups*</i>						
	<i>Hispanic</i>	<i>American Indian</i>	<i>Asian</i>	<i>Black</i>	<i>Hawaiian or Pacific Islander</i>	<i>White</i>
Number	143	30	30	177	6	383
Percent	24%	5%	5%	30%	1%	65%

*The total number of students across ethnic groups is larger than the total number of students in the study as a number of students selected more than one ethnic group. The percentage of students choosing only one ethnic group was 71 percent and the percentage choosing two or more ethnic groups was 29 percent.

Table 4*
Demographic Characteristic of Students Comprising the Research Sample

<i>Enrolled in School Type</i>					
	<i>Charter School</i>		<i>Home School</i>	<i>Private School</i>	<i>Public School</i>
Number	20		120	36	411
Percent	3%		21%	6%	70%

Gender, Course, Individual Education Plan, Free Lunch Eligibility for Free/Reduced Lunch Program, and Limited English Proficiency

	<i>Gender</i>		<i>Individual Education Plan (IEP)</i>	<i>Eligible for Free Reduced Lunch Program</i>	<i>Limited English Proficiency (LEP)</i>
	Male	Female	Yes	Yes	Yes
Number	211	376	35	159	8
Percent	36%	64%	6%	27%	1%

Applying the Standards to Students Performance

The standards were then applied to the 587 students to whom the Segment One exam had been administered. The results of the analysis are shown in Table 5. The results show that a large majority of the students scored at the *Advanced* level and no students scored at the *Needs Improvement* level.

Table 5
Number and Percent of Students Scoring at Each of Four Performance Levels

<i>Performance Level</i>	<i>Number of Students</i>	<i>Percent of Students</i>
<i>Needs Improvement</i>	0	0
<i>Novice</i>	2	1%
<i>Capable</i>	109	18%
<i>Advanced</i>	476	81%
<i>TOTAL</i>	<i>587</i>	<i>100%</i>

Students Rate Learning in the *Leadership Skills Development* Course

A survey was developed and administered online to students who had completed the *Leadership Skills Development* course. No student names were included on the surveys. This survey included both quantitative (close-ended) and qualitative (open-ended) responses. A total of approximately 400 students completed surveys.

Summarizing the Quantitative Results

The results of the quantitative questions are reported in Tables 6, 7, and 8 and Figures 1, 2, and 3. Table 6 and Figure 1 show the data for question one which asked students if they would recommend the course to a friend aspiring to six different personal and career goals. The average percent of students who selected “Yes” for all six questions was 94 percent.

Table 6
Recommending the Course to Others

Question 1: Would you recommend this course to a friend who asked one of the questions listed below?	Number		Percent	
	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
I want to become a better student. Will this course help me do that?	413	16	96%	4%
I want to get ready for the world of work. Will this course help me on my job?	397	32	93%	7%
I want to be a better person and learn to get along with others. Will this course help me?	388	41	90%	10%
I want to be a success in my sport or in music or other activity. Will this course help me?	396	33	92%	8%
I want to be a leader in helping the less fortunate. Will this course help me?	404	25	94%	6%
I need to develop my confidence in my ability to work with others and to succeed. Will this course help me?	410	19	96%	4%
AVERAGE	401	28	94%	6%

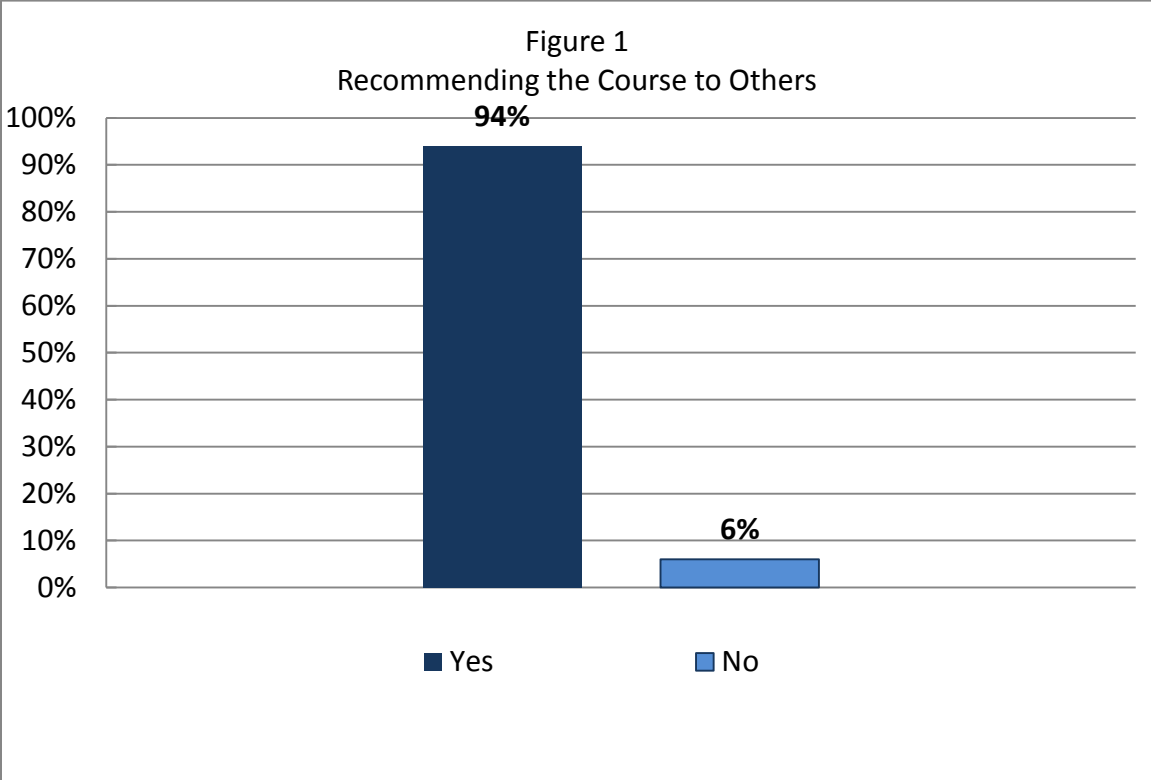


Table 7 and Figure 2 asked students to rate the probability they would use particular skills they learned during the course often, sometimes, or not at all. A total of seven strategies were described. The combined top two responses of “Often” and “Sometimes” across all seven strategies were chosen by an average of 94 percent of the students.

Table 7
How Often Will You Use the Leadership Skills

	Number			Percent		
	Often	Sometimes	Not at all	Often	Sometimes	Not at all
Question 2: Rate each of these leadership skills based on how often you will use them in your life.						
Taking action and remembering to use my Turbo Button.	215	186	28	50%	43%	7%
Overcoming challenges by getting to solution points.	237	160	32	55%	37%	7%
Getting my Activation Energy going.	219	183	27	51%	43%	6%
Using the North Star to set my goals.	169	202	58	39%	47%	14%
Knowing that big success comes from taking small actions.	346	77	6	81%	18%	1%
Developing a diverse network of contacts.	248	155	26	58%	36%	6%
Putting leadership into action and sticking with it.	314	106	9	73%	25%	2%
AVERAGE	250	153	27	58%	36%	6%

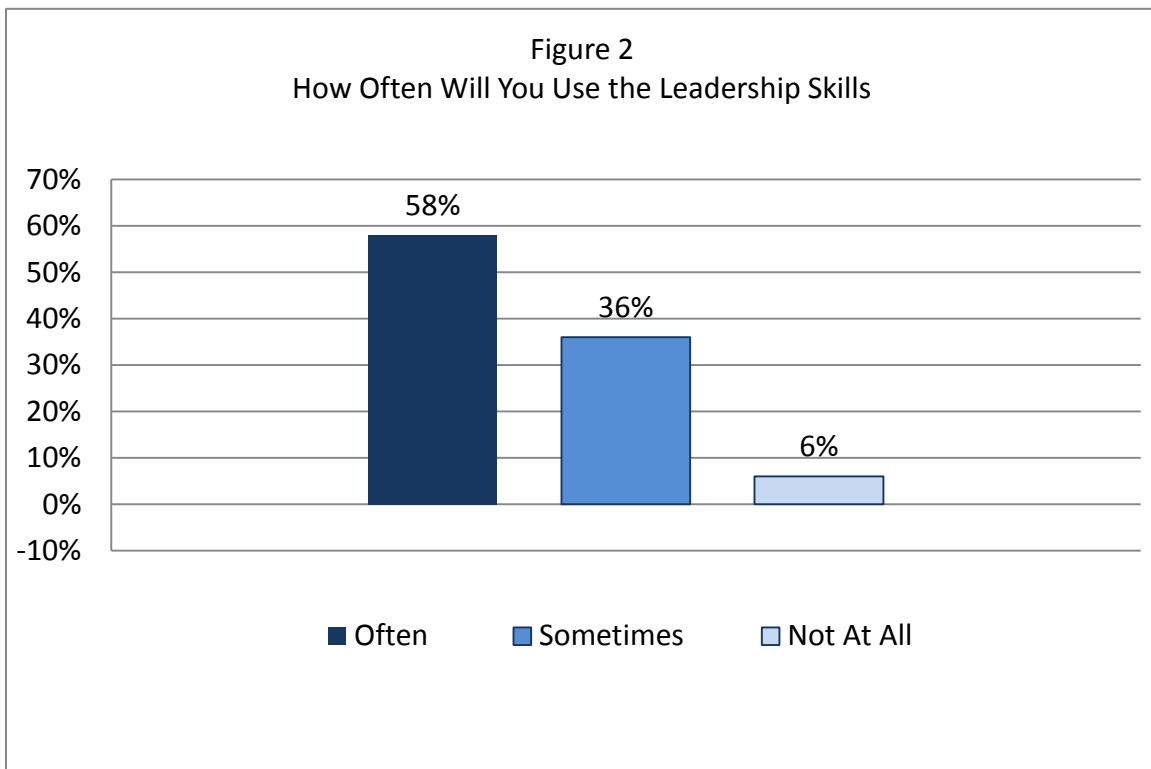
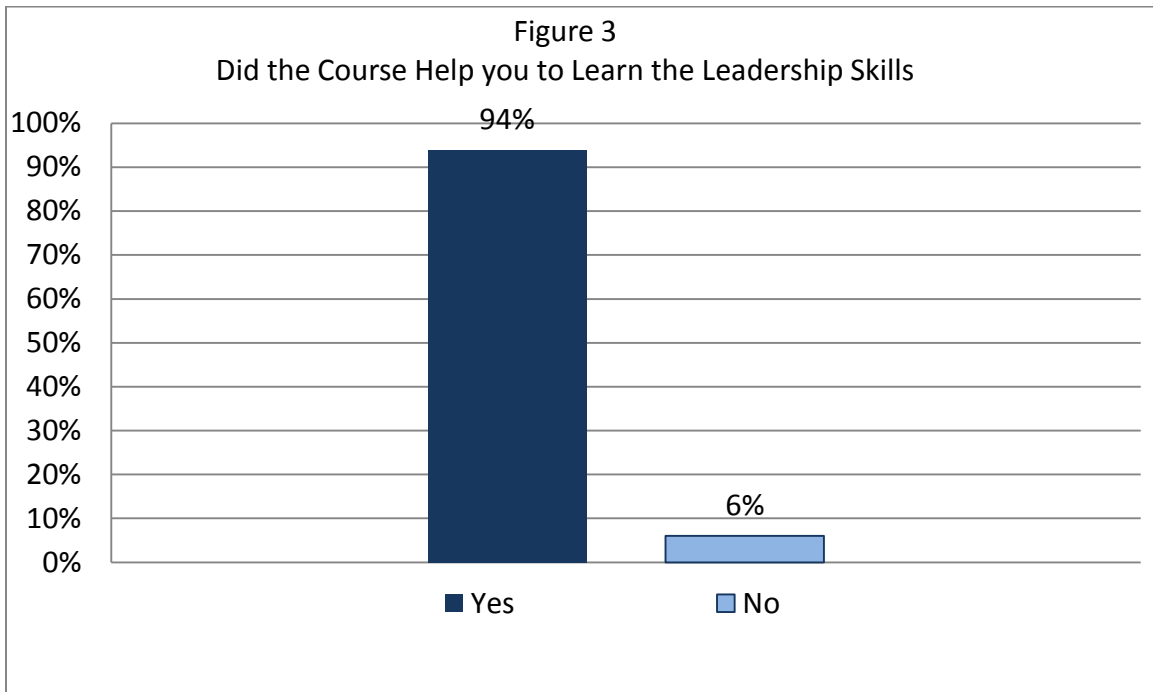


Table 8 and Figure 3 provides the results for eight strategies that student were asked whether they agreed they had learned the strategies in the course. On average, across all eight categories students responded “Yes” 94 percent of the time.

Table 8
Did the Course Help you to learn the Leadership Skills

Question 3: Did the course help you to learn how to use each of the eight leadership skills listed below?	Number		Percent	
	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
Creating MAD goals (Measurable, Attainable, and Deadline-driven).	412	17	96%	4%
Understanding what "Leadership" really means.	413	16	96%	4%
Developing goals that I can really "see."	409	20	95%	5%
Knowing how to use my time well.	409	20	95%	5%
Recognizing my personality and talents.	396	33	92%	8%
Facing challenges and dealing with failure.	409	20	95%	5%
Working with a team.	378	51	88%	12%
Keeping focused on the lasting zone and avoiding distractions.	401	28	93%	7%
AVERAGE	403	26	94%	6%



Summarizing the Qualitative Responses

Two open-ended questions were included on the survey. The first asked students to explain what they learned about leadership and what it takes to be a leader. The second asked the students to explain the one leadership skill they found to be most helpful.

It is difficult to provide a summary of approximately 400 responses to each of these two questions. The responses are as varied as the students in the course. Moreover, any summary of the responses depends on one's perspective about education, leadership, and student learning. All were anonymous so that students could write without concern that anyone would know what they wrote.

Perhaps most interesting is that almost every student wrote something in response to each question. The response rate was more than 97 percent. **Reading the responses one will easily conclude that they reveal a strong positive attitude about the course. The students' comments are supported with specifics about the course and cogent examples about the effect they believe the course has had on their lives now and how they expect the course to affect their lives in the future.**

A count of the positive versus negative comments was made. The total negative comments was less than five percent of all the responses.

Categories of Responses

Several educators were asked to read the open-ended responses and determine if they could identify consistent themes or categories that would provide a rational description of the responses. The readers arrived at the lists below for each of the two open-ended questions. There was by no means unanimity or consistency in the categories or themes each reviewer found. Discussions and disagreements were expressed as the readers discussed their lists with each other. In the end, however, the educators concluded that the final list would suffice and that interested reviewers could read the comments themselves to see if they felt the categories provided a realistic representation of the responses.

The student responses to each of the two questions are provided in the final category lists. The responses were selected to provide a portrayal of the responses. Many of the responses could have been placed in more than one category. There may also be other student responses that could better represent a category.

Question 1: Briefly explain what you learned about leadership in this course and what it takes to be a leader.

- 1. Students seemed to be aware of the subtleties and nuances of the meaning of the various leadership skills and strategies.**

I learned that Leadership is something that can be cultivated and comes from within but also with some help from the exterior. It takes courage, humbleness, and perseverance to be a leader.

Leadership does not only mean that you lead. To be a leader you have to help others and show those who will follow your example by how to act in your daily life. Leadership involves a lot of things but for me I think it means to believe in yourself.

I have learned that Leadership does not need to come in the form of big things like running a marathon or being class president. Even though these things are good ways to be a good leader, it is also the little things that also make a leader. Helping out around the house, taking control of your schooling and doing the best that you can, and helping a friend out with a project. All these things make you a good leader. It takes being able to see the good in others and in yourself to be a leader. You need to have determination to be a good leader. You need to be able to solve problems that arise in a sensible way. You need to be able to stay positive and know that you can do it.

It takes many things to be a leader. For instance, you have to know how to work with people, how to deal with problems and come up with solutions for those problems, and how to not always focus on yourself and to help others.

Leadership is the will and enthusiasm to want to direct and help people in troubling situations. I learned that there is actually quite a bit of things in being a leader; not just courage and a positive attitude.

I learned that when becoming a leader you have to have a patience for people and how to learn to make them come out of their shell.

2. Students focused on the meaning of leadership as helping and working with others and not merely self-achievement.

While taking this course I learned that by doing the littlest things in our community we can learn little by little to be leaders.

If you want to be a leader you need to have a servant's heart. To be a leader you will have to make sacrifices for others.

I learned that being a leader is about helping people and being a better person every day.

I learned that leadership can help you achieve your goals and to be a leader you have to treat everyone with the same amount of respect you do anyone else.

I learned that there are many aspects of being a leader. They are all helpful in their own ways. Being a leader, to me, is someone who is confident and is willing to help others around them.

That leadership is standing up for yourself and others, to obtain reachable goals and to solve problems.

Leadership is standing up for what you believe in and caring about people. Courage, loyalty, kindness, and other qualities like this make a leader.

3. Students expressed clear descriptions as to how leadership skills were already being applied by them and how they expected the skills to be applied in the future.

I learned about how to react to others when they don't like how you show leadership. I also learned how to take leadership in tough circumstances. I learned that to be a leader you need to be brave and determined.

I have learned a lot in this class. I used to be such a shy kid, now I'm talking so much and getting to know people because I feel a lot better about myself. I feel confident, thanks to this course. I have learned that it's the little things that will help you shape your big picture and you need to plan ahead for those kinds of things. In order to be a leader you need to be confident, smart, kind, a team sport, a good listener and a good friend to others.

What I learned in this course is that time and effort is very important. You should always focus on things that will help you in the future instead waste time on things that will never matter. Also to put effort into your work, if its school work, a job, helping others, such as volunteering, always help with a good attitude and loving heart.

I have learned so much in this course. One thing I learned about was what it really means to be a leader and how I can be a better person. It has also helped build up my self-confidence.

I learned that it really is a lot of work to be a leader and it is also a lot of pressure. At one point I used to think that I was a born leader, but I now understand what it really takes to be a leader. While I'm with my sports team(s) I try to apply the Leadership Skills that I learned in this course to be an outstanding leader.

I have learned that being a leader is not just about standing up for what's right. It's also about taking the necessary actions to complete the challenge or task at hand. Being a leader also has to do with how you approach different scenarios, what are the healthy and right decisions in over-coming any obstacle that you may face on your journey through life.

I learned to be the best person I can be on a daily basis.

4. Students expressed an understanding of the great variety of ways they could and would become leaders.

By enrolling and taking this course, I have learned several important key concepts of what leadership truly is and what it takes to be a leader. I learned that being a leader someone who helps others succeed, standing up for others, be the best example you can be, never insult or degrade a person, help others in need, be courageous, and never give up someone. Leadership is the true concept of success, because I learned that you matter more than grades in this world. It takes more than that to be a true leader. You have to make sacrifices, stay in the Lasting Zone, follow your North Star, follow the action wheel, look over your Circle of Growth and Circle of Mastery, and always accept your mistakes to move forward. What I really learned the most is failure is a part of life, and it is okay to fail because you learn from your mistakes.

This course has taught me, to be a leader, you don't have to be the valedictorian, or the jock, or the most popular kid in school. Even underdogs like myself can step to the plate and become a leader. A leader does not criticize others instead they take the ideas others have to offer. A leader has confidence in what he/she is doing. A leader takes in others people's opinions and incorporates them. A leader takes the lead on his or her own life.

I learned certain things in life will benefit me later in life so I need to put those things before other stuff that will not help me.

So far, I have learned a lot about leadership in this course. I have learned that in order to achieve big things, you have to start small, which has helped me a lot. I have also learned how to press my Turbo button every day and do my best. In order to become a leader, you have to be aware of situations and be prepared to overcome them cautiously and reasonably.

In this course I have learned and attained a lot of knowledge towards challenges. Some I have faced and some I will face later. But I have learned in my perspective that to become a leader you must remain calm in even in the worst of situations and be positive and provide, assist, and help others in any way possible. Show and express good thoughts and to hit your turbo button wherever you go, and to work hard towards what you want. Set your goals and follow and accomplish them no matter what.

In this course, I learned that being a leader doesn't mean to boss everyone around and have everyone follow you. I learned that being a leader can mean being a shoulder to cry on, someone to look up to, someone that can help anyone with anything, or just simply

being a friend to someone. I learned that leadership comes in small steps now, but will end with larger-than-life consequences later.

Leadership isn't necessarily about being a leader to others, but being a leader to yourself. To recognize that you can succeed and do great in life and with helping others. It takes courage, goals, strength, and a positive attitude to be a leader.

5. Students expressed personal values in expressing their views about leadership.

In the leadership course I learned that you can't do things by yourself sometimes and that you need help and support in your life. Being a leader means taking a stand for the things that are right not just following the crowd but actually making a change.

I learned that being a leader has a lot more to do with what's on the inside than I originally thought. If you aren't confident in your abilities, then chances are, you won't be a good leader. If you have confidence (and the skills to back up the confidence), and you also know how to get along with others and have a strong network of people, then you'll make a great leader.

I learned that Leadership is something that can be cultivated and comes from within but also with some help from the exterior. It takes courage, humbleness, and perseverance to be a leader.

I learned that life is important and that I should take it serious.

I learned how to succeed in any situation. To be a leader it takes a person that's kind, loving, and compassionate, but most important, a leader must be strong and never give up.

Being a leader means you need to know who you are and what your goals are in order to be an example for others.

This course showed me that you definitely have to know yourself before you can try to help anyone. Once you know who you are, you can help others who have been in the same situation as you.

Throughout my time in this course I Learned that leadership does not necessarily mean bossing people around but that it is about taking control of oneself in order to advance forward. One must not be held back but they must propel themselves to their future and keep trying no matter what life throws at us.

Basically it helped me understand what I need to do to get my act together.

Question 2: What one leadership skill have you found most helpful? Please explain.

The second question asked students to specify a single leadership skill and to explain the skill and how they found it most useful. Due to the specificity of the question all of the student responses focused on specific skills. However, some of the responses focused more on an understanding of a leadership skill by reflecting on the underlying principle of the leadership skill. Other student responses described how the student was applying the particular leadership skill. Thus, there are two categories of responses and examples of student responses are provided.

1. Students described a leadership skill and how they were making use of the skill.

The MAD goals. Because it helps you achieve your goals instead of just putting them aside.

I found the Success GPA to be most helpful because sometimes I get bad grades and I get down in the dumps but this reminds me that I am more than my grades.

I enjoyed learning about the lasting zone and instant zone. It really reminded me I won't be a kid forever and I need to start making decisions that will have a positive impact on my future and not a negative one. I tend to make a lot of decisions in the instant zone, especially when it comes to money.

Using the North Star to set my goals. If I have a way of setting a goal, I will want to do all I can to achieve my goal. I won't want to give up until I've achieved what I am trying to achieve in life.

The leadership skill that I have found most helpful is solution-point. Right now, I am at a point in my life where I feel stuck. And I believe that everything I learned about solution-points will help me to get unstuck. The material is very encouraging.

The lasting zone and instant zone. This helps me waste less time on things that I really don't need in my life and it helps me spend more time on things that will actually get me somewhere in life and help me for my future.

Awareness is the thing I struggle with most. Keeping track of time and things that I should be doing instead of the things that I am doing. This will help me keep on track with things that I need to.

2. Students described a leadership skill and expounded on the underlying principle on which the skill seemed to be based.

How to make my social network bigger and better. Having different types of people, white, black, Asian, Young, Old, Different, no matter who you are; social networking helped me accept everyone for who they are.

I have found my turbo button to be the most helpful. It's simple actually, how can a car get anywhere if it doesn't have gas? How can a boat sail without its captain? Even if I knew what to do to get myself out of a hard situation, if I didn't have turbo power - the button inside myself that gives me the will to improve my life- I wouldn't get anywhere. This course has made me realize that deep inside (though I thought it was gone) I have a turbo button and the power to press it. Now instead of sitting back and wondering what I can possibly do about something or feeling sorry for myself I press my turbo button. Only then do I accept the situation and instead fuel myself to make it better. My turbo button gives me will power and determination to succeed.

One leadership skill that I have found to be most helpful is being able to see the good in others. Before I had a hard time trying to figure out how to be a good leader or just a good person in general cause I did not know what it took to be one. And by seeing the good in others, I have learned that there are so many good people out there who just need a chance, a chance to be seen, and a chance to be heard. I have learned so much from just talking to people and getting to know them by just simply seeing the good in them.

I found creating MAD goals to be the most helpful. The reason I say this is because, before the course, I would always make goals that lacked one of the three parts of MAD goals. Then, when I found the goal difficult to reach, I would get discouraged. Now that I know how to properly set goals, I can set goals that I can achieve and that can help me make a difference.

When we learned about Activation Energy, I think that was the thing I'll remember the most. Sometimes our little actions don't seem to matter at all, but if you think about it, everything adds up in helping you achieve great things in the end.

Conclusions

The conclusions will review the data analyzed to answer each of the three questions that guided this study.

Question 1: Does existing research support the design and content of the *Leadership Skills Development* course?

The review of the research focused on the key concepts included in the course. The review then sought to identify the extant research related to each topic. The review produced a significant number of studies for each topic. The studies were reviewed to be sure acceptable standards were met.

The next phase was to examine if the conclusions of the research were exemplified by specific program content, organization, and implementation. This phase was conducted by ERIA staff who had neither participated in the development of the course nor had they taught the course. The connections between the research base and the *Leadership Skills Development* course are very strong. Specific examples of current instructional techniques, teaching procedures, and course organization were evident and are described in this study.

Based on the extensive review of research, it can be concluded that Leadership Skills Development is based on a solid research base that is reflected extensively throughout the course.

Question 2: Do students achieve adequate levels of success on assessments designed as outcome measures of student knowledge and achievement?

Standards were set by a committee of educators familiar with the course content and structure. The standards were based on Performance Level Descriptors previously developed by FLVS. These included four levels of performance, Needs Improvement, Novice, Capable, and Advanced.

The committee set the standards based on thorough discussions of what students should know to achieve at each of the four levels. The standards were set by reviewing all of the test items which were arranged in a booklet from the easiest test item to the most difficult test item. The process used by the committee is described as the Bookmarking Method and is the most commonly used standard setting process in use in states and school districts throughout the country.

The group engaged in several days of learning the standard-setting method and applying the method to arrive at cut-score points for each of the four levels. The results were provided to FLVS who adopted the median committee standards as the cut-score points to be used with actual student performance. That actual application of the cut-score standards to student performance was conducted by ERIA researchers. The results indicated that students scored at very high levels on the Segment One test. No students scored at the *Needs Improvement Level*, one percent of the students scored at the *Novice Level*, 18 percent scored at the *Capable Level*, and the remaining 81 percent scored at the *Advanced Level*.

The conclusion is that the students performed at very high levels on the Segment One test and demonstrated high performance levels on the content and application of the course concepts.

Question 3: Do students have positive views of what is included in the course, how well the course concepts have been taught, and do they recognize how the skills and strategies can help them now and in the future?

To determine the answers to question 3, a three-part anonymous student survey was developed. Most students took the task seriously as evidenced by the large number of thoughtful and insightful open-ended responses. Approximately 400 students responded to the total survey.

Part 1 of the survey asked students if they would recommend the course to a friend aspiring to six different personal and career goals. Survey research has strongly suggested that recommending something to another person is a strong indication of the respondent's view of the thing being recommended. The students' responded that they would recommend the course 94 percent of the time averaged across six different response categories.

Part 2 of the survey asked students if they expected to use seven skills and strategies often, sometimes, or not at all. Students responded they would **often use** the skills and strategies 58 percent of the time and that they would **sometimes use** the skills and strategies 36 percent of the time. Only 6 percent of the students responded that they would **not at all use** the skills and strategies.

The effectiveness of the course as judged by students was emphasized in Part 3 of the survey. They were asked how well they had learned to use eight skills and strategies that were taught in the course. Across the eight strategies, the student responded positively 94 percent of the time.

What is perhaps most noteworthy about the survey results are the extensive, thoughtful, and on-target open-ended responses. Many of those are included in this report. These open-ended

responses provide strong support that goes beyond just checking a box as is done for the close-ended responses.

Based on the results of the survey for both the close-ended and open-ended responses it can be concluded that the students have very positive views of what is included in the course and they believe the concepts have been well taught. Most importantly they recognize how the skills and strategies can help them now and in the future.

About Mawi Learning

Mawi Learning transforms the academic, career, and life opportunities of students through non-cognitive skill development. Over the last fifteen years, Mawi Learning has trained over 1,000,000 students at more than 1,000 schools. Learn more at MawiLearning.com.



About Florida Virtual School

Florida Virtual School (FLVS) is an established leader in developing and providing virtual Kindergarten through Grade 12 education solutions to students nationwide. A nationally recognized e-learning model, FLVS, founded in 1997, was the country's first statewide Internet-based public high school. In 2000, the Florida Legislature established FLVS as an independent educational entity with a gubernatorial appointed board. FLVS funding is tied directly to student performance. Access the school at www.flvs.net.

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