

FLVS M/J Civics Efficacy Study

Analysis, Assessment, and Accountability Team

This efficacy study explored results from two different assessment types for the Florida Virtual School (FLVS) Middle School/Junior High School (M/J) Civics course to better understand student success and achievement in this course for both FLVS Full Time and FLVS Flex. In this document, the FLVS Analysis, Assessment, and Accountability team reports the pretest/posttest differences for student performance on the course module exams students completed and considers performance on the state administered Civics End-of-Course (EOC) assessment.

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Executive Summary

This efficacy study explored results from two different assessment types for the Florida Virtual School (FLVS) Middle School/Junior High School (M/J) Civics course to better understand student success and achievement in this course for both FLVS Full Time and FLVS Flex. In this document, the FLVS Analysis, Assessment, and Accountability team reports the pretest/posttest differences for student performance on the course module exams students completed and considers performance on the state administered Civics End-of-Course (EOC) assessment. The study focused on four research questions to achieve these tasks:

1. *Do students enrolled in the FLVS M/J Civics course achieve success as assessed by their module exam scores?*
2. *Do students enrolled in regular or advanced courses achieve similar gains in the FLVS M/J Civics course?*
3. *Do students across differing demographics (gender, race/ethnicity, and socio-economic status) achieve similar gains when enrolled in the FLVS M/J Civics course?*
4. *Do students enrolled in the FLVS M/J Civics course achieve success as assessed by the Florida Civics End-of-Course exam scores?*

All comparisons of pretests and posttests across modules revealed statistically significant improvements in students' module exam scores in both the Full Time and Flex schools, with large or very large effect sizes. For the Full Time school, advanced students scored slightly higher on both tests, but Full Time and Flex students demonstrated the same amount of gains from pretests to posttests.

Likewise, in both schools, female and male students showed similar scores and gains. Additionally, students not classified as Free and Reduced Lunch (FRL) had higher scores and gains than FRL students; White and Multi-Racial students had higher pretest and posttest scores than minority students, yet all students exhibited strong gains. Finally, students who completed the Florida Civics End-of-Course exam over the past three years scored above the state average each year. The percentage of students earning a level 3 or higher in both programs was between 78% and 81%, while the highest state average has been 71%.

Each of the above findings demonstrated FLVS M/J Civics students achieved course success as assessed by module exams, similar gains across subgroups as assessed by module exams, and course success as assessed by the Florida Civics End-of-Course exam.

Research Design

In light of Florida state leaders recently calling for schools to raise the bar for civic literacy and closely monitor instructional materials associated with Civics courses (see Governor Ron DeSantis's [Executive Order 19-32](#) and [House Bill 807](#)), the FLVS Analysis, Accountability, and Assessment team initiated a study of recent M/J Civics success and achievement.

This study explores results from two different assessment types. It reports the pretest/posttest differences for student performance on the module exams students complete in the FLVS M/J Civics course, and it looks at the performance on the state administered Civics End-of-Course (EOC) exam.

FLVS students have outperformed the state on the M/J Civics End-of-Course exam in overall achievement in recent years. Florida measures state assessments on a scale of 1 to 5 where a score of 1 is inadequate, a 2 is below satisfactory, a 3 indicates a satisfactory level, a 4 is proficient, and 5 indicates mastery. For example, 71% of Florida students scored a level 3 or higher on the Civics End-of-Course exam for the 2018-2019 school year; 77% of FLVS Full Time students scored a level 3 or higher and 78% of FLVS Flex students scored a level 3 or higher. To better understand FLVS success and achievement in this course, an exploration of subgroups and achievement across the course was therefore deemed important.

FLVS has two schools for Florida students and families to choose from: Full Time and Flex. This study considered students in each school. FLVS Full Time is a full-time online public school where students take all courses online, with daily attendance and state testing required. This school follows a fixed school year calendar from August to June, and students start and finish courses on a traditional semester schedule with fall and spring enrollment periods. FLVS Full Time is the student's school of record and manages student transcripts and report cards.

On the other hand, FLVS Flex is a flexible option for students to take one or more courses online, which they can start anytime during the year. FLVS Flex students take FLVS courses while attending a traditional school or as a homeschool student. For this school, the traditional school or parent of the homeschooled student manages school transcripts.

Both FLVS Full Time and FLVS Flex courses offer the same curriculum and include synchronous and asynchronous instruction provided by Florida-certified teachers. The FLVS M/J Civics course includes six modules, each with a pretest and posttest available and two segment exams. This study considered students who enrolled and completed the FLVS M/J Civics course in the Flex or Full Time school between January 2017 and March 2020. Pretests and posttests data were analyzed, in addition to all available Civics End-of-Course exam data.

Research Questions

1. *Do students enrolled in the FLVS M/J Civics course achieve success as assessed by their module exam scores?*
2. *Do students enrolled in regular or advanced courses achieve similar gains in the FLVS M/J Civics course?*
3. *Do students across differing demographics (gender, ethnicity, and socio-economic status) achieve similar gains when enrolled in the FLVS M/J Civics course?*
4. *Do students enrolled in the FLVS M/J Civics course achieve success as assessed by the Florida Civics End-of-Course exam scores?*

Course Description

The M/J Civics course engages students in exploring the rights and responsibilities of becoming an active citizen of the United States, as well as examining the structure and function of federal, state, and local governments. Students learn about geography and economics and the important roles citizens play in their communities. This course is two segments and students complete, on average, in 32-36 weeks:

Segment 1 Module Exams

Citizenship

Foundations

Sharing Power

Segment 1 Cumulative Exam (not analyzed in this study due to lack of pretest data)

Segment 2 Module Exams

Active Citizens

American Money

Going Global

Segment 2 Cumulative Exam (not analyzed in this study due to lack of pretest data)

Description of the Population and Research Sample

The research sample included Full Time and Flex students who were enrolled in and completed the M/J Civics Version 13 between January 2017 and March 2020. Tables 1 through 6 capture demographic characteristics of students in the population and those included in this analysis.

Table 1: Grade Levels of Students in Research Sample (Full Time)

Full Time				
Grade Level	6	7	8	9
Number of Students	8	1,014	153	5
Percent of Students	0.7%	85.9%	13.0%	0.4%
Number of Students in Matched Pairs Sample	2	256	27	1
Percent of Students in Matched Pairs Sample	0.7%	89.5%	9.4%	0.3%

Table 2: Grade Levels of Students in Research Sample (Flex)

Flex								
Grade Level	4	5	6	7	8	9	10	11
Number of Students	4	28	435	4,328	1,446	167	13	3
Percent of Students	0.1%	0.4%	6.8%	67.3%	22.5%	2.6%	0.2%	0.1%
Number of Students in Matched Pairs Sample	4	19	306	3441	1079	115	6	3
Percent of Students in Matched Pairs Sample	0.1%	0.4%	6.2%	69.2%	21.7%	2.3%	0.1%	0.1%

Most students that complete the M/J Civics course are seventh graders in both the Full Time and Flex schools.

Table 3: Race/Ethnicities of Students in Research Sample (Full Time)

Full Time							
Race/ Ethnicity	American Indian or Alaska Native	Asian	Black or African American	Hispanic	Multi- Racial	Native Hawaiian or Other Pacific Islander	White
Number of Students	6	25	95	94	68	1	891
Percent of Students	0.5%	2.1%	8.1%	8.0%	5.8%	0.1%	75.5%
Number of Students in Matched Pairs Sample	0	4	22	21	17	0	222
Percent of Students in Matched Pairs Sample	0.0%	1.4%	7.7%	7.3%	5.9%	0.0%	77.6%

Table 4: Race/Ethnicities of Students in Research Sample (Flex)

Flex							
Race/ Ethnicity	American Indian or Alaska Native	Asian	Black or African American	Hispanic	Multi- Racial	Native Hawaiian or Other Pacific Islander	White
Number of Students	41	144	469	1,544	276	8	3,327
Percent of Students	0.7%	2.5%	8.1%	26.6%	4.8%	0.1%	57.3%
Number of Students in Matched Pairs Sample	33	119	388	1318	240	8	2867
Percent of Students in Matched Pairs Sample	0.7%	2.4%	7.8%	26.5%	4.8%	0.2%	57.7%

The races/ethnicities of the students are self-reported. White students made up the largest group of students that took the M/J Civics course in both the Full Time and Flex schools. The Flex school had half as many Hispanic students complete the course as compared to White students, whereas the Full Time school had 1/10 the number of Hispanic students and 1/10 the number of Black students when compared to the number of White students.

For the purposes of this report and due to the number of students in each subgroup, analyses focus on three categories: White, Minority (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and Hispanic), and Multi-Racial.

Table 5: Gender, Course, and Free Lunch Eligibility for Free/Reduced Lunch Program of Students in the Research Sample (Full Time)

Full Time	Gender		Course Level		Eligible for Free/Reduced Lunch Program	
	Female	Male	Advanced	Regular	Yes	No
Number of Students	672	508	287	907	526	654
Percent of Students	56.9%	43.1%	24.0%	76.0%	44.6%	55.4%
Number of Students in Matched Pairs Sample	160	126	73	213	138	148
Percent of Students in Matched Pairs Sample	55.9%	44.1%	25.5%	75.5%	48.3%	51.7%

Table 6: Gender, Course, and Free Lunch Eligibility for Free/Reduced Lunch Program of Students in the Research Sample (Flex)

Flex	Gender		Course Level		Eligible for Free/Reduced Lunch Program	
	Female	Male	Advanced	Regular	Yes	No
Number of Students	2,960	2,840	1,175	4,682	2,612	3,198
Percent of Students	51.0%	49.0%	20.1%	79.9%	45.0%	55.0%
Number of Students in Matched Pairs Sample	2525	2448	1002	3971	2178	2795
Percent of Students in Matched Pairs Sample	50.8%	49.2%	20.1%	79.9%	43.8%	56.2%

The gender and free and reduced lunch eligibility are self-reported. In both the Full Time and Flex schools the percentage of female and male students are approximately 50%, with the Full Time school having slightly more females than males. The number of students that were enrolled in the regular course is approximately three times the number of advanced students for the Full Time school and four times the number for the Flex school. Both schools have approximately equal percentages of students qualifying for free and reduced lunch.

Description of the Module Level Assessments in the FLVS Course

Within the FLVS course, there are six pretests and six posttests corresponding to each of the six modules in the course. Students complete three modules within each of two segments of the course. Thus, there are six possible pretest/posttest comparisons across the six modules analyzing how students performed overall and in specified subgroups on the test items. Each of the module pretest and posttest item banks are structured using groups of items. Each group of items is designed to measure the same benchmark(s) at the same cognitive complexity level.

All students were administered a randomized subset of items from the corresponding item bank, stratified by item groups with a pre-specified number of items drawn from each group.

Each pretest or posttest module assessment includes 13 to 29 groups of banked test items. The total number of test items in a pretest or posttest module item bank ranges from 75 to 138. To limit item exposure and promote academic integrity, each student receives 1 to 4 randomly selected items from each group. For any given group, all students are randomly assigned the same number of items from that group.

For the M/J Civics pretests, there are 111 pretest groups with multiple test items for each group. Overall, there are a total of 618 pretest items across 111 groups. This random sampling provides a broad assessment since all 618 items are included in the assessment bank, but each student takes only 25 to 46 items per test and a total of 206 pretest items throughout the course.

Each posttest includes 13 to 25 groups of banked test items for a total of 552 test items. Again, to limit exposure and promote academic integrity, each student randomly receives only a subset of test items from the bank. Each group of items is designed to measure the same benchmark(s) at the same cognitive complexity level. This random sampling provides a broad assessment since all 552 items are included in the assessment bank, but each student takes only 25 to 44 items per test and a total of 184 posttest items throughout the course.

According to the FLVS course development guidelines, a test blueprint is created for each pre-test and module exam. Each test item is written to measure a particular benchmark at an appropriately specified cognitive complexity level based on an adaptation of Webb’s Depth of Knowledge. “The categories—low complexity,

moderate complexity, and high complexity—form an ordered description of the demands an item may make on a student” (Civics End-of-Course Assessment Test Item Specifications, 2012). Tests and test items are reviewed by subject matter experts and editorial staff, and tests are assembled per blueprint requirements.

Table 7: Items for Pretest Module Assessments

	<i>Regular and Advanced</i>	
Pretest Modules	Total # of Banked Items	# of Items per Student
Module 1 Citizenship	111	37
Module 2 Foundations	138	46
Module 3 Sharing Power	84	28
Module 4 Active Citizens	75	25
Module 5 American Money	111	37
Module 6 Going Global	99	33

Table 8: Items for Posttest Module Assessments

	<i>Regular and Advanced</i>	
Posttest Modules	Total # of Banked Items	# of Items per Student
Module 1 Citizenship	96	32
Module 2 Foundations	132	44
Module 3 Sharing Power	75	25
Module 4 Active Citizens	75	25
Module 5 American Money	87	29
Module 6 Going Global	87	29

The pretests and posttests were developed to assess the standards and benchmarks covered in each M/J Civics module. The assessments focused on the skills, strategies, and knowledge necessary for effective understanding of civics.

Data Analyses and Results

Data analyses focused on students' percent correct scores due to differing numbers of test items on pretests and posttests. Only students receiving scores for both a pretest and a posttest in each module were included in the analysis. For the purposes of this report and due to the number of students in each subgroup, analyses focused on three categories: White, Minority (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and Hispanic), and Multi-Racial.

Separate analyses were conducted for each of the modules 1-6 for Flex students and modules 1-3 for Full Time students. Modules 1-3 comprise the first segment (equivalent to a first semester of work) and modules 4-6 the second segment (equivalent to a second semester of work). FLVS Full Time did not administer pretests during segment 2, so a pretest/posttest analysis could not be completed for segment 2 for Full Time student data.

Analysis Description

The following analyses were conducted to determine answers to the research questions that guided this study:

1. Pretest/posttest comparisons, using Paired Comparison t-tests, were used to analyze student growth within each module. The Paired Comparison t-tests determined if there were any statistically significant increase differences among students scores for defined subgroups within the Flex and Full Time schools, respectively. The p-value used to determine statistical significance was $p \leq 0.05$.
2. Students were divided into sub-groups within each school based on the following criteria:
 - enrollment status in either the regular or honors section of the Civics course
 - gender (male or female)
 - socio-economic status (determined by eligibility for free/reduced lunch programs or non-eligibility)
 - race/ethnicity (White, minority, or multi-racial).
3. An effect-size analysis was computed for each of the paired t-tests. Cohen's d statistic was used to determine the effect size. This statistic provided an indication of the strength of the treatment effect regardless of the statistical significance. A significant p-value tells us that student growth scores increased between pretest and posttest, whereas an effect size tells us whether that difference was large enough to matter. Cohen's d statistic is interpreted as follows:
 - 0.2 = small effect
 - 0.5 = medium effect
 - 0.8 = large effect

Results for Each Module

The coming sections explain analysis results from each segment in the FLVS Flex and Full Time M/J Civics course with sufficient data from the years 2017 to 2020.

Segment 1

FLVS Flex Module 1: Citizenship

The following statement introduces the course module to students: Good citizens understand their rights, respect the rights of others, and meet the duties and responsibilities of citizenship. In this unit, students learn about citizenship in the United States. The guiding questions for Module 1: Citizenship include:

- How do we define the United States?
- What is culture?
- What can maps tell us?
- How are citizenship and ecology connected?
- What is a U.S. citizen?
- What is good citizenship?

In this module, the increases from pretest to posttest for all students in every subgroup were all statistically significant ($\leq .0001$). The effect sizes were all greater than 1, which is very large, except for multi-racial students who had a large effect size of .87.

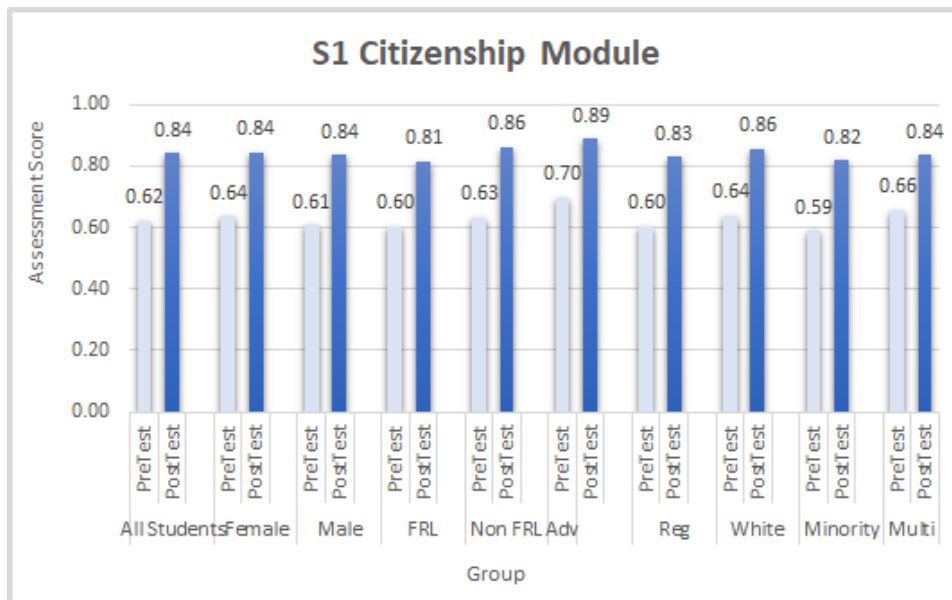
Overall, FLVS Flex students made a 22% gain from pretest to posttest in Module 1, with subgroups making gains ranging from 18% to 23%. Female and male students had the same mean scores on the posttests. Non-free/reduced lunch students scored higher than free/reduced lunch students. Advanced students scored higher than regular students on both pretests and posttests, but regular students made larger gains from pretest to posttest.

A few differences among the pretest and posttest scores in the subgroups for race/ethnicity are notable. White students had the highest posttest scores while Multi-Racial students scored slightly lower. Minority students scored the lowest on the posttests but showed the largest gain from pretest to posttest.

The figure below indicates percent correct scores across the research sample in this module. See Appendix for complete results.

Figure 1: Flex M/J Civics Segment 1, Module 1

Pretest to Posttest Percent Correct Scores by All Students and by Subgroups (Female/Male, Free and Reduced Lunch/Non-Free and Reduced Lunch, Advanced/Regular, White/Minority/Multi-Racial)



FLVS Flex Module 2: Foundations

The following statement introduces this module to students in the course: The government of the United States was founded by concerned citizens, working together to solve problems. In its early days, the United States faced many challenges. Leaders worked together to design a government that would protect the rights and meet the needs of its people. In this unit, you will learn about the foundations of the U.S. government

The guiding questions for Module 2: Foundations include:

- Who influenced the Founding Fathers?
- Which important documents influenced America?
- Why is the Declaration of Independence important?
- What is the intent of the Constitution?
- How do the branches of government work?
- How are the powers balanced?
- How are rights protected?
- How can the Constitution change?

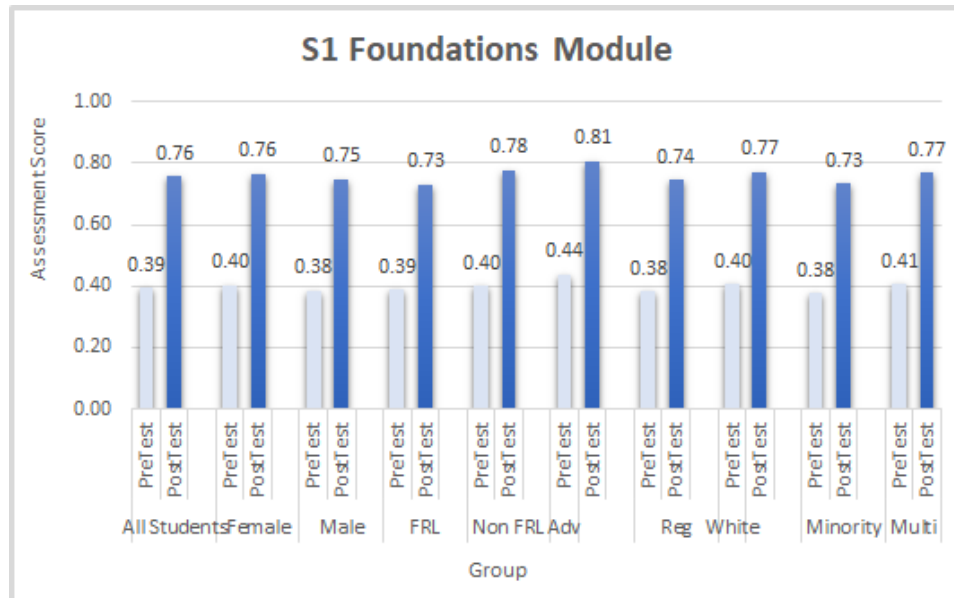
The increases from Module 2 pretest to posttest for all students and for every subgroup were all statistically significant ($\leq .0001$). The effect sizes were all greater than 1.5, which is very large.

Overall, FLVS Flex students made a 36% gain from pretest to posttest with subgroups making gains ranging from 34% to 38%. Female and male students performed similarly on the pretests and posttests. Non-free/reduced lunch students scored higher than free/reduced lunch students. Advanced students scored higher than regular students on both pretests and posttests, but both groups made similar gains. There is also some variation among the pretest and posttest scores in the subgroups for race/ethnicity. White and Multi-Racial students had the same mean posttest scores and similar pretest scores. Minority students scored lower on both pretests and posttests.

The figure below indicates percent correct scores across the research sample in this module. See Appendix for complete results.

Figure 2: Flex M/J Civics Segment 1, Module 2

Pretest to Posttest Percent Correct Scores by All Students and by Subgroups (Female/Male, Free and Reduced Lunch/Non-Free and Reduced Lunch, Advanced/Regular, White/Minority/Multi-Racial)



FLVS Flex Module 3: Sharing Power

The following statement introduces this module to students in the course: In the United States, the federal government, state governments, and local governments all have a say in how the people are governed. The people themselves have power as well. Public policy and the court system are important means through which citizens can contribute to society and seek justice. In this unit, you will learn how governments share power, why and how laws are made, and how the courts help citizens seek justice.

The guiding questions for Module 3: Sharing Power include:

- What is federalism?
- How are states governed?
- What is Rule of Law?
- How are laws made?
- How do the courts work?
- How does a jury trial ensure justice?
- How can we solve local problems?

The increases from pretest to posttest for all students and for every subgroup in Module 3 were all statistically significant (≤ 0.0001). The effect sizes were all greater than 1, which is very large.

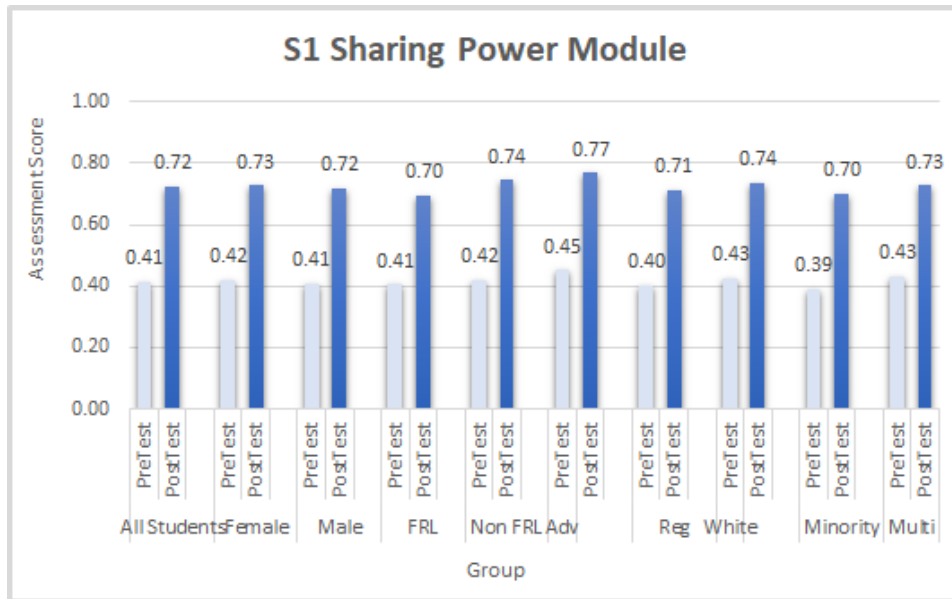
Overall, FLVS Flex students made a 31% gain from pretest to posttest with subgroups making gains ranging from 29% to 32%. Female and male students performed similarly on the pretests and posttests. Non-free/reduced lunch students scored higher than free/reduced lunch students on the posttests. Advanced students scored higher than regular students on both pretests and posttests.

There are some notable differences among the pretest and posttest scores in the subgroups for race/ethnicity. White and Multi-Racial students had similar mean posttest scores and the same pretest scores. Minority students scored lower on both pretests and posttests.

The figure below indicates percent correct scores across the research sample in this module. See Appendix for full results.

Figure 3: Flex M/J Civics Segment 1, Module 3

Pretest to Posttest Percent Correct Scores by All Students and by Subgroups (Female/Male, Free and Reduced Lunch/Non-Free and Reduced Lunch, Advanced/Regular, White/Minority/Multi-Racial)



Segment 2

FLVS Flex Module 4: Active Citizens

The following statement introduces this module to students in the course: In this unit, you will learn about the ways that people can show active citizenship. From learning about people running for office to writing local leaders about issues, people exercise their right to participate in community life every day.

The guiding questions for Module 4: Active Citizens include:

- How do citizen perspectives differ?
- What is Judicial Review?
- What are the Rights of the Accused?
- What are the Rights of Speech?
- How can we influence government?
- How do elections impact society?
- What are demographics?

The increases from pretest to posttest for all students and for every subgroup were all statistically significant (≤ 0.0001). The effect sizes were all greater than 1, which is very large.

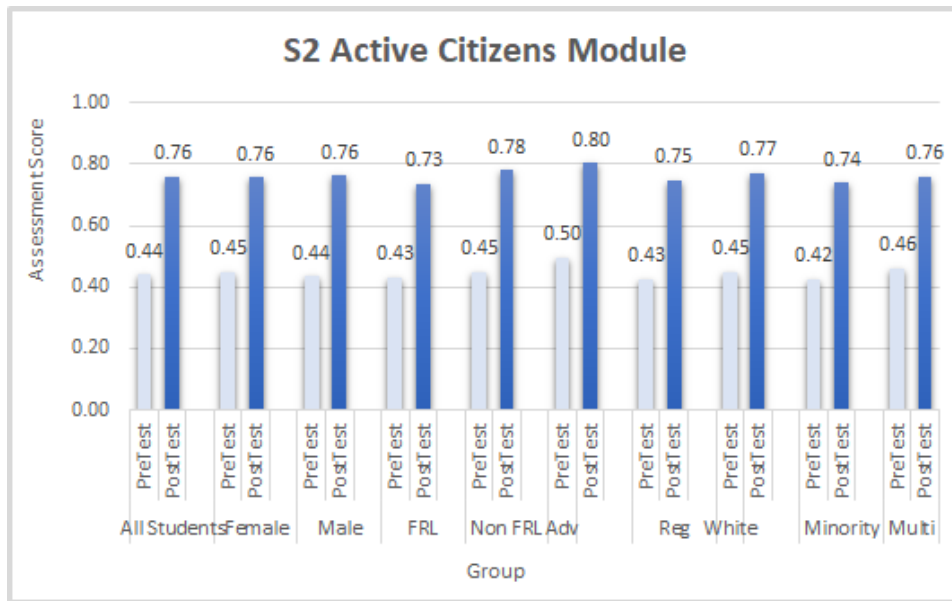
Overall, FLVS Flex students made a 32% gain from pretest to posttest in Module 4 with subgroups making gains ranging from 30% to 33%. Female and male students performed similarly on the pretests and posttests. Non-free/reduced lunch students scored higher than free/reduced lunch students. Advanced students scored higher than regular students on both pretests and posttests.

There are some notable differences among the pretest and posttest scores in the subgroups for race/ethnicity. White and Multi-Racial students had similar mean pretest and posttest scores. Minority students scored lower on both pretests and posttests.

The figure below indicates percent correct scores across the research sample in this module. See Appendix for complete results.

Figure 4: Flex M/J Civics Segment 2, Module 4

Pretest to Posttest Percent Correct Scores by All Students and by Subgroups (Female/Male, Free and Reduced Lunch/Non-Free and Reduced Lunch, Advanced/Regular, White/Minority/Multi-Racial)



FLVS Flex Module 5: American Money

The following statement introduces students to this module in the course: Economics is the study of how people get the goods and services they need and want. In this unit, you will focus on the U.S. economy. You will learn basic economic concepts and see how they relate to the United States. You will discover the role of individuals, businesses, and governments in shaping the economy.

The guiding questions for Module 5: American Money include:

- How does scarcity affect us?
- What are incentives?
- What is the role of competition?
- How does banking work?
- Why should we pay taxes?
- How does borrowing money affect us?

The increases from pretest to posttest in Module 5 for all students and for every subgroup were all statistically significant ($\leq .0001$). The effect sizes were all greater than 1.5, which is very large.

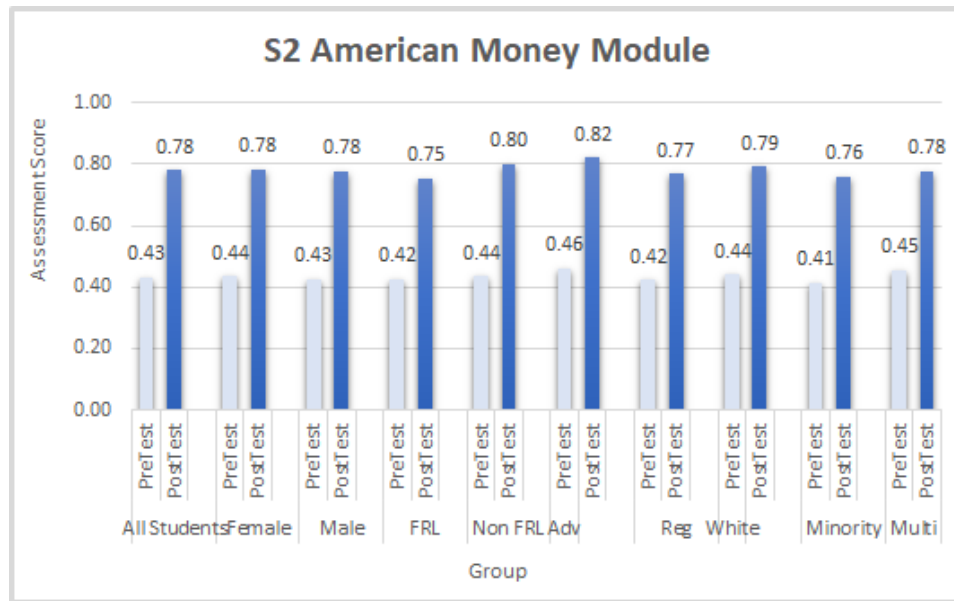
Overall, FLVS Flex students made a 35% gain from pretest to posttest with subgroups making gains ranging from 32% to 36%. Female and male students performed similarly on the pretests and posttests. Non-free/reduced lunch students scored higher than free/reduced lunch students. Advanced students scored higher than regular students on both pretests and posttests.

There are some notable differences among the pretest and posttest scores in the subgroups for race/ethnicity. White and Multi-Racial students had similar mean pretest and posttest scores. Minority students scored lower on both pretests and posttests.

The figure below indicates percent correct scores across the research sample in this module. See the Appendix for complete results.

Figure 5: Flex M/J Civics Segment 2, Module 5

Pretest to Posttest Percent Correct Scores by All Students and by Subgroups (Female/Male, Free and Reduced Lunch/Non-Free and Reduced Lunch, Advanced/Regular, White/Minority/Multi-Racial)



FLVS Flex Module 6: Going Global

The following statement introduces this module to students in the course: Going Global is all about how the United States relates to other countries around the world. In this unit, you will learn about the governments of other countries, why and how countries interact, and how they work together to improve life for all.

The guiding questions for Module 6: Going Global include:

- How do other nations govern?
- How does geography affect society?
- Why should nations diversify?
- What are national policies?
- How does currency affect trade?
- How do we participate in a world community?

The increases from pretest to posttest in Module 6 for all students and for every subgroup were statistically significant ($\leq .0001$). The effect sizes were all greater than 1.5, which is very large.

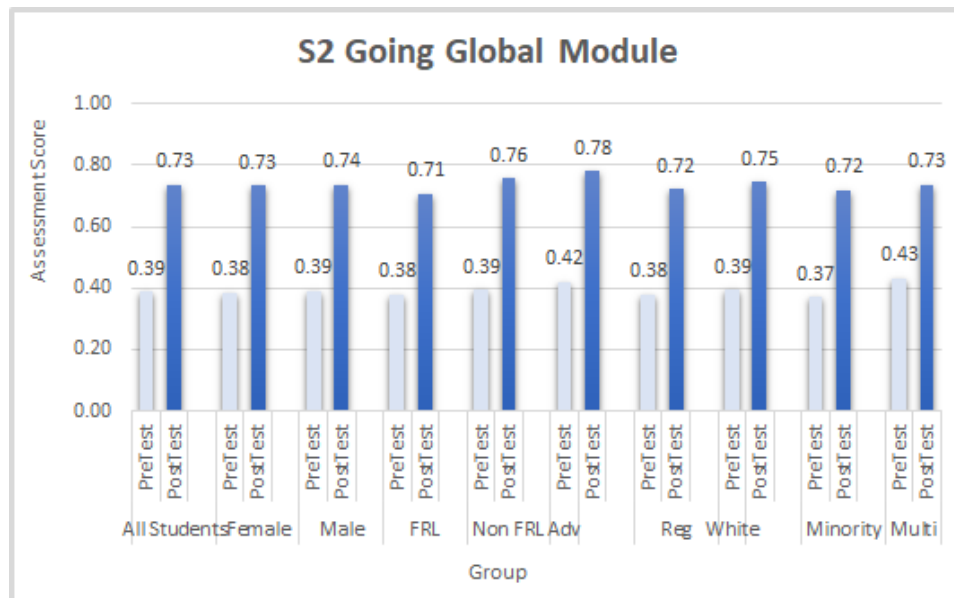
Overall, FLVS Flex students made a 35% gain from pretest to posttest with subgroups making gains ranging from 30% to 36%. Female and male students performed similarly on the pretests and posttests. Non-free/reduced lunch students scored higher than free/reduced lunch students. Advanced students scored higher than regular students on both pretests and posttests.

There are some notable differences among the pretest and posttest scores in the subgroups for race/ethnicity. Multi-racial and minority students had similar scores on the posttest while White students scored a little higher. Multi-Racial students had higher pretest scores than the other two subgroups.

The figure below indicates percent correct scores across the research sample in this module. See Appendix for complete results.

Figure 6: Flex M/J Civics Segment 2, Module 6

Pretest to Posttest Percent Correct Scores by All Students and by Subgroups (Female/Male, Free and Reduced Lunch/Non Free and Reduced Lunch, Advanced/Regular, White/Minority/Multi-Racial)



The next section presents results from the first three modules of the M/J Civics course for students in the FLVS Full Time school.

FLVS Full Time Segment 1

FLVS Full Time Module 1: Citizenship

The following statement introduces this course module to students: Good citizens understand their rights, respect the rights of others, and meet the duties and responsibilities of citizenship. In this unit, students learn about citizenship in the United States.

The guiding questions for Module 1: Citizenship include:

- How do we define the United States?
- What is culture?
- What can maps tell us?
- How are citizenship and ecology connected?
- What is a U.S. citizen?
- What is good citizenship?

The increases from pretest to posttest for all FLVS Full Time students and for every subgroup were all statistically significant ($\leq .0004$). The effect sizes were all greater than 0.8, which is large.

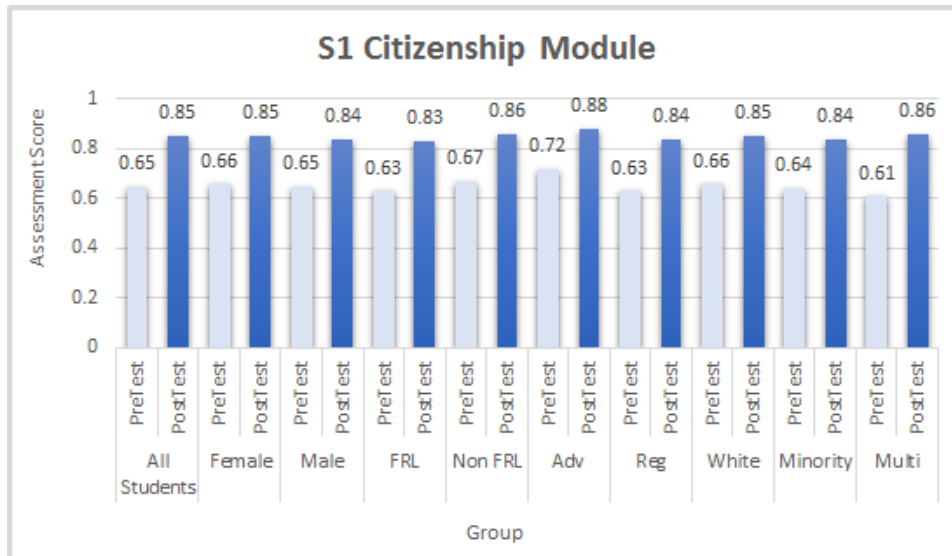
Overall, Full Time students made a 20% gain from pretest to posttest with subgroups making gains ranging from 17% to 23%. Female and male students performed similarly on the pretests and posttests. Non-free/reduced lunch students scored similarly to free/reduced lunch students on the posttest, but the free/reduced lunch students made greater gains. Advanced students scored higher than regular students on both pretests and posttests.

There are some differences among the pretest and posttest scores in the subgroups for race/ethnicity as well. White students scored highest on both pretests and posttests. Multi-Racial students had higher mean posttest scores than minority students, but the two subgroups had similar scores on the pretests.

The figure below indicates percent correct scores across the research sample in this module. See Appendix for complete results.

Figure 7: Full Time M/J Civics Segment 1, Module 1

Pretest to Posttest Percent Correct Scores by All Students and by Subgroups (Female/Male, Free and Reduced Lunch/Non-Free and Reduced Lunch, Advanced/Regular, White/Minority/Multi-Racial)



FLVS Full Time Module 2: Foundations

The following statement introduces this module to students in the course: The government of the United States was founded by concerned citizens, working together to solve problems. In its early days, the United States faced many challenges. Leaders worked together to design a government that would protect the rights and meet the needs of its people. In this unit, you will learn about the foundations of the U.S. government

The guiding questions for Module 2: Foundations include:

- Who Influenced the Founding Fathers?
- Which Important Documents Influenced America?
- Why Is the Declaration of Independence Important?
- What Is the Intent of the Constitution?
- How Do the Branches of Government Work?
- How Are the Powers Balanced?
- How Are Rights Protected?
- How Can the Constitution Change?

The increases from pretest to posttest for all students and for every subgroup in Module 2 were all statistically significant ($\leq .0001$). The effect sizes were all greater than 1.5, which is very large.

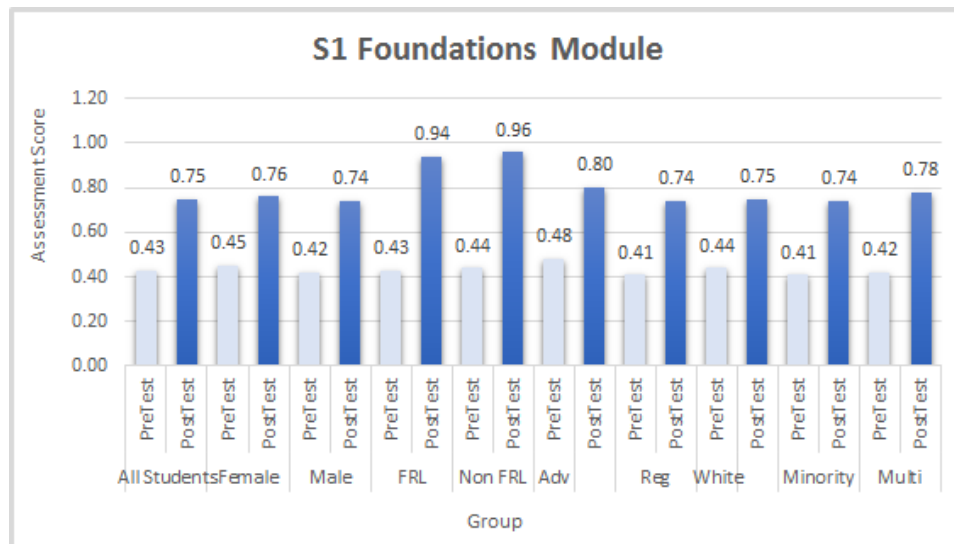
Overall, FLVS Full Time students made a 33% gain from pretest to posttest with subgroups making gains ranging from 27% to 35%. Female and male students had the same mean score on the posttest, but females scored higher on the pretests. Non-free/reduced lunch students had the same mean posttest scores as free/reduced lunch students but slightly lower pretest scores. Advanced students scored higher than regular students on both pretests and posttests.

There are also some differences among the pretest and posttest scores in the subgroups for race/ethnicity. White students had the highest mean pretest and posttest scores. Multi-Racial students scored somewhat lower on both tests while minority students scored lowest of the three subgroups on the posttest and had the lowest gain.

The figure below indicates percent correct scores across the research sample in this module. See Appendix for complete results.

Figure 8: Full Time M/J Civics Segment 1, Module 2

Pretest to Posttest Percent Correct Scores by All Students and by Subgroups (Female/Male, Free and Reduced Lunch/Non-Free and Reduced Lunch, Advanced/Regular, White/Minority/Multi-Racial)



FLVS Full Time Module 3: Sharing Power

The following statement introduces this module to students in the course: In the United States, the federal government, state governments, and local governments all have a say in how the people are governed. The people themselves have power as well. Public policy and the court system are important means through which citizens can contribute to society and seek justice. In this unit, you will learn how governments share power, why and how laws are made, and how the courts help citizens seek justice.

The guiding questions for Module 3: Sharing Power include:

- What Is Federalism?
- How are states governed?
- What is Rule of Law?
- How are laws made?
- How do the courts work?
- How does a jury trial ensure justice?
- How can we solve local problems?

The increases from pretest to posttest for all students and for every subgroup were all statistically significant ($\leq .0001$). The effect sizes were all greater than 1.2, which is very large.

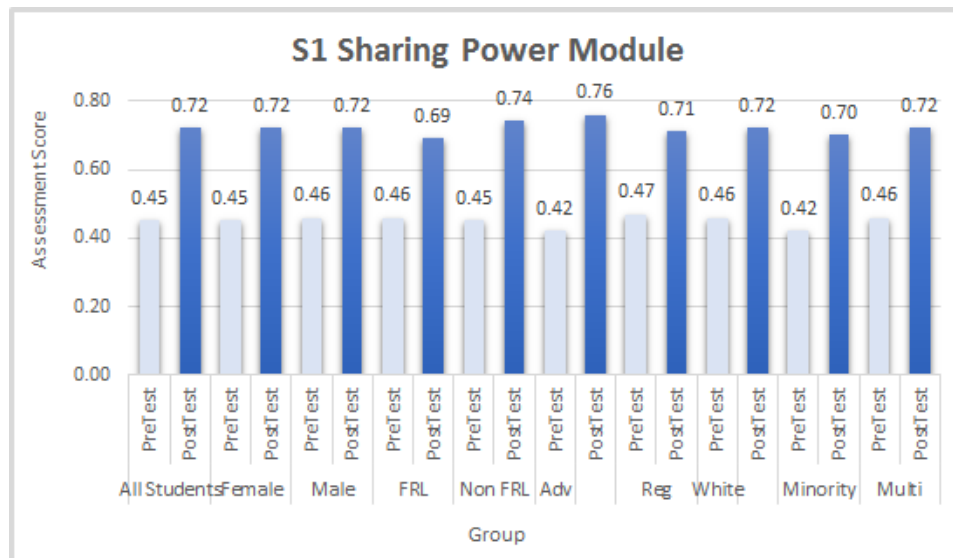
Overall, students made a 27% gain from pretest to posttest with subgroups making gains ranging from 24% to 34%. Female and male students performed similarly on the pretests and posttests. Non-free/reduced lunch students scored higher on pretests and posttests than did free/reduced lunch students. Advanced students had higher mean scores than regular students on the posttest, but regular students scored higher on pretest.

There are also some differences among the pretest and posttest scores in the subgroups for race/ethnicity. White and Multi-Racial students had similar mean scores on the pretests and posttests; minority students scored lower, especially on the pretests, but had the greatest gains.

The figure below indicates percent correct scores across the research sample in this module. See the Appendix for complete results.

Figure 9: Full Time M/J Civics Segment 1, Module 3

Pretest to Posttest Percent Correct Scores by All Students and by Subgroups (Female/Male, Free and Reduced Lunch/Non-Free and Reduced Lunch, Advanced/Regular, White/Minority/Multi-Racial)



As mentioned, due to the small very small number of students completing pretests in Segment 2, this segment is not included for the Full Time achievement analysis.

The next section presents analysis of the Civics End-of-Course Exam results for students in the FLVS Flex and Full Time schools who completed the exam in the years 2017 to 2020.

Civics End-of-Course Exam

In December 2008, the Florida State Board of Education adopted the Next Generation Sunshine State Standards (NGSSS) for Social Studies. The grade 7 M/J Civics and Government strand of these standards was used to develop the Civics End-of-Course (EOC) Assessment. The 2010 Florida Legislature authorized the Florida EOC Assessments with the passage of Senate Bill 4 (Civics End-of-Course Assessment Test Item Specifications, 2012).

The Civics EOC exam assesses students on the following content standards:

- Standard 1: Demonstrate an understanding of the origins and purposes of government, law, and the American political system.
- Standard 2: Evaluate the roles, rights, and responsibilities of U.S. citizens, and determine methods of active participation in society, government, and the political system.
- Standard 3: Demonstrate an understanding of the principles, functions, and organization of government.
- Standard 4: Demonstrate an understanding of contemporary issues in world affairs, and evaluate the role and impact of U.S. foreign policy.

The above standards are subdivided into benchmarks that identify what a student should know and be able to do following completion of the course. Although there are many more benchmarks designated by the state to be taught in the M/J Civics course, only 35 of them are directly measured on the Civics EOC, due to the time constraints on testing. However, the additional benchmarks are taught and tested within the M/J Civics course.

For additional information about the Civics End-of-Course exam, see the [Civics EOC Test Item Specifications Document](#).

FLVS End-of-Course Assessment Performance

The Civics End-of-Course (EOC) assessment is a computer-based, criterion-referenced assessment that measures student achievement of the Next Generation Sunshine State Standards (NGSSS) taught in the M/J Civics course. The grade 7 Civics and Government strand of the NGSSS for Social Studies was used to develop the Civics EOC Assessment.

Table 9: Performance of Flex Students on Civics End-of-Course Assessment*

*Please note: N sizes are low because most Flex EOC scores are reported directly to students' schools of record, rather than FLVS.

Test Date	N	Percent of Students at Achievement Level					
		1	2	3	4	5	3+
Spring 2017	185	8%	12%	27%	23%	31%	81%
Spring 2018	216	7%	15%	22%	29%	27%	78%
Spring 2019	254	8%	14%	26%	24%	29%	78%

Table 10: Performance of Full Time Students on Civics End-of-Course Assessment

Test Date	N	Percent of Students at Achievement Level					
		1	2	3	4	5	3+
Spring 2017	632	5%	17%	28%	28%	21%	78%
Spring 2018	509	4%	15%	31%	26%	24%	81%
Spring 2019	518	6%	16%	28%	29%	20%	77%

Table 11: Civics End-of-Course Assessment State Summary

Test Date	N	Percent of Students at Achievement Level					
		1	2	3	4	5	3+
Spring 2017	200,980	13%	17%	26%	21%	23%	69%
Spring 2018	199,288	13%	16%	25%	21%	25%	71%
Spring 2019	213,183	13%	16%	25%	21%	25%	71%

Figure 10: State and FLVS Full Time Civics EOC Percent Passing (Achievement Levels 3 and Above)

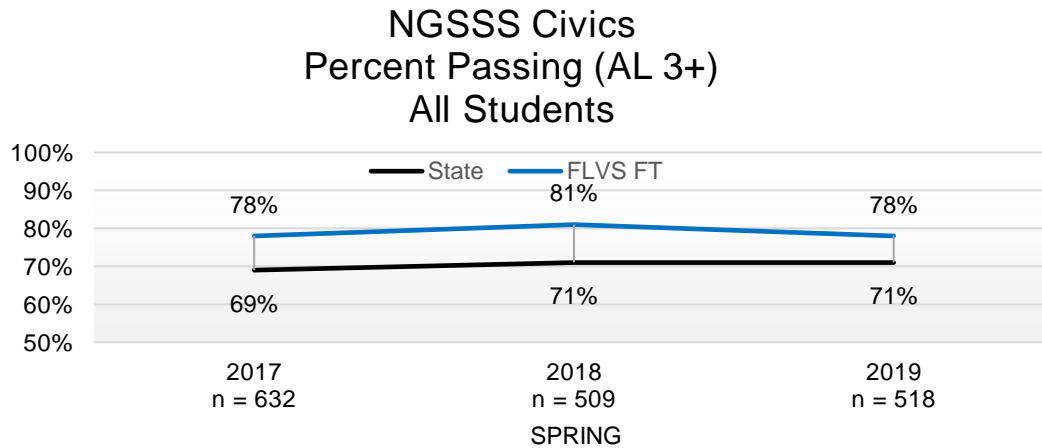
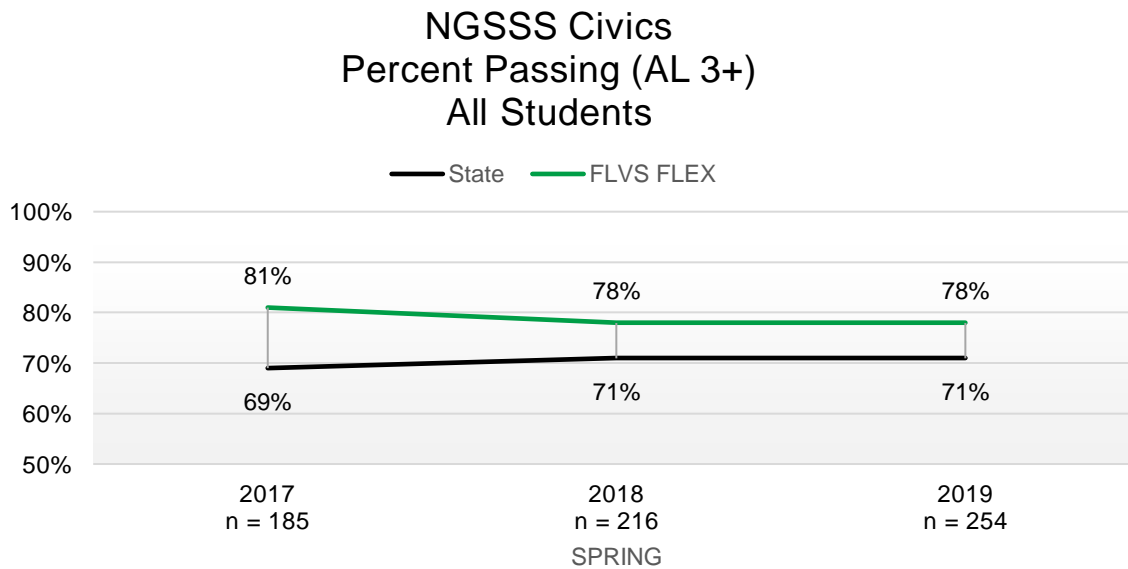


Figure 11: State and FLVS Flex Civics EOC Percent Passing (Achievement Levels 3 and Above)



The percent of FLVS Full Time and Flex students achieving level 3 or above is 7-10% higher than the state percent in each administration of the EOC. This percentage does not include all students in the sample because homeschool and private school students in the Flex school are not required by the state to test.

The final section of this report presents this study's conclusions.

Conclusions

This section reviews the data analyzed to answer each of the research questions that guided the study.

Question 1: Do students enrolled in the FLVS M/J Civics course achieve success as assessed by their module exam scores?

For each of the comparisons across the six modules for Flex and three modules for Full Time, the t-test results confirmed that differences between pretest and posttest scores across all students and across all subgroups were statistically significant ($p \leq .0004$). Additionally, all effect sizes were large or very large. Recall that a significant p-value tells us that student growth scores increased between pretest and posttest, whereas an effect size tells us whether that difference was large enough to matter.

The average pretest and posttest scores for all students, by school, and the gain (posttest – pretest) for all students across the six modules for Flex and three modules for Full Time are displayed in Table 12. Flex students had lower mean pretest scores, but they made larger gains than Full Time students. This resulted in students from the two schools having similar mean posttest scores with Full Time scoring slightly higher than Flex students on posttests.

Table 12: Gain Scores Across All Students in Six Flex Modules and Three Full Time Modules

	Pretest Percent	Posttest Percent	Gain
Flex	45%	77%	32%
Full Time	53%	79%	26%

The module pretest/posttest comparisons show significant and meaningful increases in gains for each of the modules and in both Flex and Full Time schools and thus for the total M/J Civics course.

Question 2: Do students enrolled in regular or advanced courses achieve similar gains in the FLVS M/J Civics course?

The advanced and regular average percent increases across six modules in Flex and three modules in Full Time are shown in Table 13.

In Flex, advanced students scored five points higher on the pretests and posttests than regular students. Each group had the same gain, growing 32 points from pretest to posttest.

Similarly, in the Full Time school, advanced students scored six points higher on the pretests and posttests than regular students, and each group had the same gain, growing 26 points from pretest to posttest.

Table 13: Gain Scores for Advanced and Regular Students by School in Six Flex Modules and Three Full Time Modules

School	Group	Pretest Percent	Posttest Percent	Gain
Flex	Advanced	49%	81%	32%
	Regular	44%	76%	32%
Full Time	Advanced	57%	83%	26%
	Regular	51%	77%	26%

Overall, the advanced students had higher mean scores on both pretests and posttests than regular students in their respective schools, but both groups achieved the same gains. Flex students showed greater gains, but Full Time students had higher pretest and posttest scores.

Question 3: Do students across differing demographics (gender, race/ethnicity, and socio-economic status) achieve similar gains when enrolled in the FLVS M/J Civics course?

The percent increases in mean scores by gender, FRL/Non-FRL and race/ethnicity across six modules in Flex and three modules in Full Time are shown in Table 14.

Within their respective schools, Flex and Full Time, female and male students showed similar mean pretest, posttest, and gain scores. Non-FRL students had higher pretest and posttest scores and higher gain scores than FRL students. White students and Multi-Racial students had higher pretest and posttest scores than minority students while all students exhibit strong gain scores. Minority Flex students had the same percent gain as Flex White students but lower percent gain scores than other Full Time White or Multi-Racial students.

Table 14: Gain Scores by Subgroup (Gender, FRL/Non-FRL and Race/Ethnicity) and by School in Six Flex Modules and Three Full Time Modules

School	Group	Pretest Percent	Posttest Percent	Gain
Flex	Female	46%	77%	31%
	Male	44%	77%	32%
Full Time	Female	53%	79%	26%
	Male	52%	78%	26%

School	Group	Pretest Percent	Posttest Percent	Gain
Flex	Non FRL	46%	79%	33%
	FRL	44%	74%	30%
Full Time	Non FRL	54%	82%	28%
	FRL	53%	76%	22%

School	Group	Pretest Percent	Posttest Percent	Gain
Flex	White	46%	78%	32%
	Minority	43%	75%	32%
	Multi-Racial	48%	77%	29%
Full Time	White	53%	80%	27%
	Minority	51%	75%	23%
	Multi-Racial	52%	77%	25%

Students across differing demographics (gender, race/ethnicity, and socio-economic status) achieved similar performance levels in some cases and varying performance levels in others when enrolled in the FLVS M/J Civics course. However, all the subgroups made gains ranging from 22% to 33% percentage points between pretest and posttest.

Question 4: Do students enrolled in the FLVS M/J Civics course achieve success as assessed by the Florida End-of-Course exam scores?

FLVS students have historically had high achievement on the state’s Civics End-of-Course exam. The percent of students scoring level 3 or higher in both Full Time and Flex has consistently been above the state. For the past three years, the percentage of students earning a level 3 or higher in both Flex and Full Time has been between 78% and 81%. The highest the state average has been is 71%. In addition, the percent of students scoring a level 1 is comparatively very low to the statewide percent.

In Flex, over the last three years the percent of Flex students scoring level 1 was between 7% and 8% and, for Full Time students, it was between 4% and 6%. The state was consistently 13%, nearly double that of Flex and Full Time. These trends support the statement that FLVS students achieve success as assessed by the Florida End-of-Course exams.

Reference

Florida Department of Education, 2012. *Civics End-of-Course Assessment Test Item Specifications*. Retrieved from: <http://www.fldoe.org/core/fileparse.php/5662/urlt/0077548-fl12spiscivicswtr2g.pdf>.

Appendix: Complete Results for Each Module and School

Table 1: M/J Civics Module 1: Citizenship								
Comparison of Pretest and Posttest Percent Correct Scores								
Flex								
Group	Test	Number	Mean	Standard Deviation	Mean Difference	t-Test	Significance	Effect Size
All Students	Pretest	3215	62%	0.21	22%	61.381	≤.0001	1.08
	Posttest	3215	84%	0.12				
Advanced	Pretest	624	70%	0.18	19%	26.504	≤.0001	1.06
	Posttest	624	89%	0.08				
Regular	Pretest	2591	60%	0.21	23%	55.566	≤.0001	1.09
	Posttest	2591	83%	0.12				
Female	Pretest	1633	64%	0.20	21%	44.146	≤.0001	1.09
	Posttest	1633	84%	0.11				
Male	Pretest	1582	61%	0.22	23%	42.923	≤.0001	1.08
	Posttest	1582	84%	0.12				
FRL	Pretest	1373	60%	0.21	21%	38.171	≤.0001	1.03
	Posttest	1373	81%	0.13				
Non FRL	Pretest	1842	63%	0.21	23%	48.212	≤.0001	1.12
	Posttest	1842	86%	0.11				
White	Pretest	1832	64%	0.21	22%	45.566	≤.0001	1.06
	Posttest	1832	86%	0.11				
Minority	Pretest	1222	59%	0.21	23%	39.938	≤.0001	1.14
	Posttest	1222	82%	0.12				
Multi-Racial	Pretest	161	66%	0.20	18%	11.010	≤.0001	0.87
	Posttest	161	84%	0.12				

Table 2: M/J Civics Module 2: Foundations
Comparison of Pretest and Posttest Percent Correct Scores

Flex								
Group	Test	Number	Mean	Standard Deviation	Mean Difference	t-Test	Significance	Effect Size
All Students	Pretest	2614	39%	0.16	36%	107.12	≤.0001	2.10
	Posttest	2614	76%	0.12				
Advanced	Pretest	536	44%	0.16	37%	51.36	≤.0001	2.22
	Posttest	536	81%	0.10				
Regular	Pretest	2078	38%	0.16	36%	94.16	≤.0001	2.07
	Posttest	2078	74%	0.13				
Female	Pretest	1337	40%	0.16	36%	78.59	≤.0001	2.15
	Posttest	1337	76%	0.12				
Male	Pretest	1277	38%	0.16	36%	73.02	≤.0001	2.04
	Posttest	1277	75%	0.13				
FRL	Pretest	1130	39%	0.16	34%	66.27	≤.0001	1.97
	Posttest	1130	73%	0.13				
Non FRL	Pretest	1484	40%	0.16	38%	85.12	≤.0001	2.21
	Posttest	1484	78%	0.11				
White	Pretest	1495	40%	0.16	37%	82.50	≤.0001	2.13
	Posttest	1495	77%	0.12				
Minority	Pretest	988	38%	0.16	36%	64.16	≤.0001	2.04
	Posttest	988	73%	0.12				
Multi-Racial	Pretest	131	41%	0.17	36%	23.75	≤.0001	2.07
	Posttest	131	77%	0.11				

Table 3: M/J Civics Module 3: Sharing Power

Comparison of Pretest and Posttest Percent Correct Scores

Flex

Group	Test	Number	Mean	Standard Deviation	Mean Difference	t-Test	Significance	Effect Size
All Students	Pretest	2591	41%	0.18	31%	79.023	≤.0001	1.55
	Posttest	2591	72%	0.14				
Advanced	Pretest	538	45%	0.18	32%	37.724	≤.0001	1.63
	Posttest	538	77%	0.12				
Regular	Pretest	2053	40%	0.18	31%	69.495	≤.0001	1.53
	Posttest	2053	71%	0.15				
Female	Pretest	1304	42%	0.18	31%	56.698	≤.0001	1.57
	Posttest	1304	73%	0.14				
Male	Pretest	1287	41%	0.18	31%	55.092	≤.0001	1.54
	Posttest	1287	72%	0.15				
FRL	Pretest	1147	41%	0.18	29%	49.105	≤.0001	1.45
	Posttest	1147	70%	0.14				
Non FRL	Pretest	1444	42%	0.18	32%	62.519	≤.0001	1.65
	Posttest	1444	74%	0.14				
White	Pretest	1492	43%	0.18	31%	58.873	≤.0001	1.52
	Posttest	1492	74%	0.14				
Minority	Pretest	975	39%	0.17	31%	50.012	≤.0001	1.60
	Posttest	975	70%	0.14				
Multi-Racial	Pretest	124	43%	0.19	30%	17.057	≤.0001	1.53
	Posttest	124	73%	0.14				

Table 4: M/J Civics Module 4: Active Citizens
Comparison of Pretest and Posttest Percent Correct Scores

Flex

Group	Test	Number	Mean	Standard Deviation	Mean Difference	t-Test	Significance	Effect Size
All Students	Pretest	3328	44%	0.19	32%	89.191	≤.0001	1.55
	Posttest	3328	76%	0.14				
Advanced	Pretest	705	50%	0.19	31%	40.883	≤.0001	1.54
	Posttest	705	80%	0.11				
Regular	Pretest	2623	43%	0.19	32%	79.323	≤.0001	1.55
	Posttest	2623	75%	0.14				
Female	Pretest	1725	45%	0.19	31%	64.199	≤.0001	1.55
	Posttest	1725	76%	0.13				
Male	Pretest	1603	44%	0.20	33%	62.068	≤.0001	1.55
	Posttest	1603	76%	0.14				
FRL	Pretest	1423	43%	0.19	30%	55.474	≤.0001	1.47
	Posttest	1423	73%	0.14				
Non FRL	Pretest	1905	45%	0.20	33%	70.219	≤.0001	1.61
	Posttest	1905	78%	0.13				
White	Pretest	1974	45%	0.20	32%	69.102	≤.0001	1.56
	Posttest	1974	77%	0.13				
Minority	Pretest	1207	42%	0.19	31%	53.658	≤.0001	1.54
	Posttest	1207	74%	0.13				
Multi-Racial	Pretest	147	46%	0.19	30%	17.456	≤.0001	1.44
	Posttest	147	76%	0.16				

Table 5: M/J Civics Module 5: American Money
Comparison of Pretest and Posttest Percent Correct Scores

Flex

Group	Test	Number	Mean	Standard Deviation	Mean Difference	t-Test	Significance	Effect Size
All Students	Pretest	3184	43%	0.18	35%	100.958	≤.0001	1.79
	Posttest	3184	78%	0.13				
Advanced	Pretest	675	46%	0.18	36%	51.310	≤.0001	1.97
	Posttest	675	82%	0.10				
Regular	Pretest	2509	42%	0.18	35%	87.419	≤.0001	1.75
	Posttest	2509	77%	0.14				
Female	Pretest	1646	44%	0.17	35%	75.914	≤.0001	1.87
	Posttest	1646	78%	0.13				
Male	Pretest	1538	43%	0.19	35%	67.194	≤.0001	1.71
	Posttest	1538	78%	0.14				
FRL	Pretest	1352	42%	0.18	33%	62.621	≤.0001	1.70
	Posttest	1352	75%	0.13				
Non FRL	Pretest	1832	44%	0.18	36%	79.765	≤.0001	1.86
	Posttest	1832	80%	0.13				
White	Pretest	1898	44%	0.19	35%	76.778	≤.0001	1.76
	Posttest	1898	79%	0.13				
Minority	Pretest	1145	41%	0.17	35%	62.598	≤.0001	1.85
	Posttest	1145	76%	0.13				
Multi-Racial	Pretest	141	45%	0.20	32%	20.271	≤.0001	1.71
	Posttest	141	78%	0.14				

Table 6: M/J Civics Module 6: Going Global
Comparison of Pretest and Posttest Percent Correct Scores

Flex								
Group	Test	Number	Mean	Standard Deviation	Mean Difference	t-Test	Significance	Effect Size
All Students	Pretest	3151	39%	0.17	35%	108.865	≤.0001	1.94
	Posttest	3151	73%	0.12				
Advanced	Pretest	674	42%	0.17	36%	52.224	≤.0001	2.01
	Posttest	674	78%	0.11				
Regular	Pretest	2477	38%	0.17	34%	95.614	≤.0001	1.92
	Posttest	2477	72%	0.13				
Female	Pretest	1627	38%	0.16	35%	79.234	≤.0001	1.96
	Posttest	1627	73%	0.13				
Male	Pretest	1524	39%	0.18	35%	74.685	≤.0001	1.91
	Posttest	1524	74%	0.12				
FRL	Pretest	1349	38%	0.17	33%	68.785	≤.0001	1.87
	Posttest	1349	71%	0.12				
Non FRL	Pretest	1802	39%	0.17	36%	85.094	≤.0001	2.00
	Posttest	1802	76%	0.12				
White	Pretest	1878	39%	0.17	35%	83.904	≤.0001	1.94
	Posttest	1878	75%	0.12				
Minority	Pretest	1135	37%	0.16	35%	67.775	≤.0001	2.01
	Posttest	1135	72%	0.12				
Multi-Racial	Pretest	138	43%	0.20	30%	17.980	≤.0001	1.53
	Posttest	138	73%	0.13				

Table 7: M/J Civics Module 1: Citizenship
Comparison of Pretest and Posttest Percent Correct Scores

Full Time

Group	Test	Number	Mean	Standard Deviation	Mean Difference	t-Test	Significance	Effect Size
All Students	Pretest	246	65%	0.19	20%	16.108	≤.0001	1.03
	Posttest	246	85%	0.11				
Advanced	Pretest	67	72%	0.15	18%	9.779	≤.0001	1.19
	Posttest	67	90%	0.07				
Regular	Pretest	179	63%	0.20	20%	13.194	≤.0001	0.99
	Posttest	179	83%	0.12				
Female	Pretest	138	66%	0.18	19%	11.923	≤.0001	1.01
	Posttest	138	85%	0.12				
Male	Pretest	108	65%	0.20	20%	10.798	≤.0001	1.04
	Posttest	108	86%	0.11				
FRL	Pretest	115	63%	0.18	19%	11.37	≤.0001	1.06
	Posttest	115	82%	0.12				
Non FRL	Pretest	131	67%	0.20	20%	11.48	≤.0001	1.00
	Posttest	131	88%	0.10				
White	Pretest	198	66%	0.19	20%	15.030	≤.0001	1.07
	Posttest	198	86%	0.11				
Minority	Pretest	35	64%	0.18	17%	4.969	≤.0001	0.84
	Posttest	35	82%	0.11				
Multi-Racial	Pretest	13	61%	0.27	23%	3.496	≤.0004	0.97
	Posttest	13	84%	0.10				

Table 8: M/J Civics Module 2: Foundations
Comparison of Pretest and Posttest Percent Correct Scores

Full Time

Group	Test	Number	Mean	Standard Deviation	Mean Difference	t-Test	Significance	Effect Size
All Students	Pretest	111	43%	0.18				
	Posttest	111	76%	0.13	33%	19.51	≤.0001	1.85
Advanced	Pretest	33	48%	0.16				
	Posttest	33	80%	0.10	33%	9.94	≤.0001	1.73
Regular	Pretest	78	41%	0.18				
	Posttest	78	75%	0.13	33%	16.74	≤.0001	1.90
Female	Pretest	51	45%	0.18				
	Posttest	51	76%	0.12	31%	11.58	≤.0001	1.62
Male	Pretest	60	42%	0.17				
	Posttest	60	76%	0.13	35%	16.18	≤.0001	2.09
FRL	Pretest	57	43%	0.17				
	Posttest	57	72%	0.13	29%	12.88	≤.0001	1.71
Non FRL	Pretest	54	44%	0.18				
	Posttest	54	80%	0.10	37%	15.21	≤.0001	2.07
White	Pretest	89	44%	0.18				
	Posttest	89	78%	0.12	34%	17.55	≤.0001	1.86
Minority	Pretest	12	41%	0.15				
	Posttest	12	68%	0.10	27%	6.89	≤.0001	1.99
Multi-Racial	Pretest	10	42%	0.18				
					32%	5.39	≤.0001	1.70

Posttest	10	73%	0.12
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Table 9: M/J Civics Module 3: Sharing Power
Comparison of Pretest and Posttest Percent Correct Scores

Full Time

Group	Test	Number	Mean	Standard Deviation	Mean Difference	t-Test	Significance	Effect Size
All Students	Pretest	165	46%	0.21	27%	16.316	≤.0001	1.27
	Posttest	165	72%	0.16				
Advanced	Pretest	45	42%	0.20	34%	9.929	≤.0001	1.48
	Posttest	45	76%	0.16				
Regular	Pretest	120	47%	0.21	24%	13.390	≤.0001	1.22
	Posttest	120	71%	0.16				
Female	Pretest	82	45%	0.21	27%	12.051	≤.0001	1.33
	Posttest	82	72%	0.15				
Male	Pretest	83	46%	0.21	26%	11.005	≤.0001	1.21
	Posttest	83	72%	0.16				
FRL	Pretest	82	46%	0.20	23%	10.55	≤.0001	1.17
	Posttest	82	69%	0.16				
Non FRL	Pretest	83	45%	0.22	30%	12.74	≤.0001	1.40
	Posttest	83	76%	0.15				
White	Pretest	125	46%	0.22	26%	13.937	≤.0001	1.25
	Posttest	125	73%	0.15				
Minority	Pretest	27	42%	0.18	28%	7.101	≤.0001	1.37
	Posttest	27	71%	0.17				
Multi-Racial	Pretest	13	47%	0.19	25%	4.389	≤.0001	1.22
	Posttest	13	73%	0.22				