

FLORIDA VIRTUAL SCHOOL STUDENTS DEFY NATIONAL TRENDS:

Despite a significant decline in math achievement nationwide, Florida Virtual School students' math scores show consistent growth



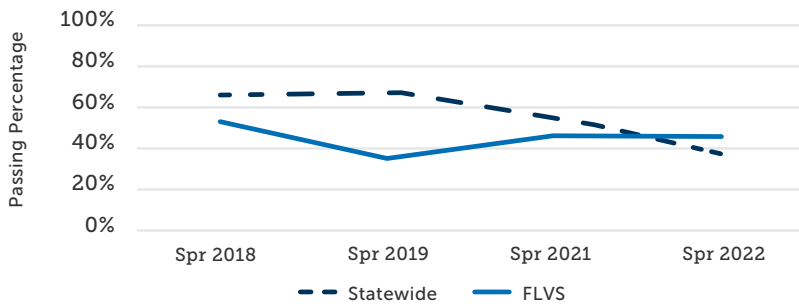
Background and Introduction

The COVID-19 pandemic led to a significant decline in math achievement nationwide, especially during the 2020-21 school year.* However, Florida Virtual School (FLVS) students emerged as an exception by demonstrating higher math achievement than national trends. In this study, the FLVS research team investigated the impact of the COVID-19 pandemic on math achievement among elementary students who were enrolled full time at FLVS to determine how their proficiency differed from students who attended traditional schools and saw declines in achievement due to interruptions caused by the pandemic.

A Quick Look At The Findings

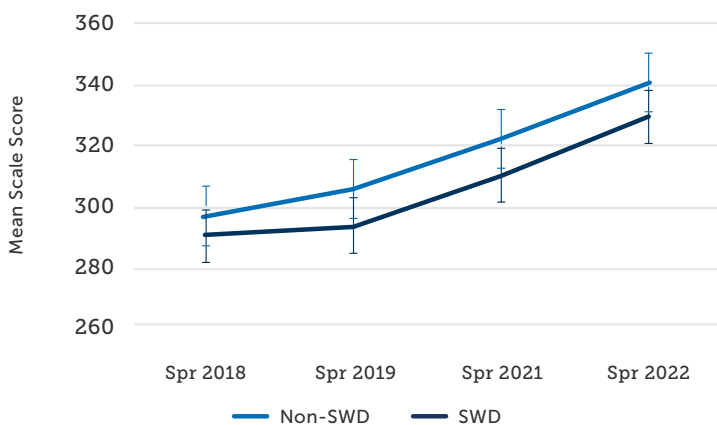
- FLVS Full Time students' math achievement saw consistent growth before the pandemic.
- Students maintained higher math achievement than their counterparts enrolled in traditional schools during the pandemic.
- Students with disabilities exhibited lower baseline math scores compared to their peers but showed consistent growth over time.
- The pandemic's abrupt shifts highlighted the need for effective online education methods.
- Providing tailored support and accommodations for students with disabilities in online learning environments is critical to ensure equitable opportunities for all students.

FLVS Full Time Grade 3 Students Held Stable Math Scores While Statewide Scores Declined



The percentage of Grade 3 students with a passing score (Level 3 or higher) on the Math Florida Standards Assessment decreased steadily across Florida after Spring 2019. By contrast, the passing percentage increased or remained stable for students enrolled in FLVS Full Time during the same period. Data source: <https://edudata.fldoe.org/AdvancedReports.html>

FLVS Students With Disabilities Maintained Similar Growth Trajectories to Their Peers



The graph to the left depicts mean scale scores on the Math Florida Standards Assessment for FLVS students enrolled Full Time in Grade 3 in 2017-18 and continued through the 2021-22 school year. Student test score data was unavailable in the 2019-20 school year due to disruptions caused by the COVID-19 pandemic. Students with disabilities had lower scores on average, but their growth trajectories were not statistically different from their peers.

Study Purpose and Method

This study examined student achievement longitudinally before and after the pandemic using a prospective cohort design. This student cohort entered third grade in 2017-18 and attended FLVS as their full-time school of record through 2021-22.

A total of 329 students had valid assessment data for 2017-18. Roughly half of the students participating in the study were male (54%) and white (55%). Over a third of students were eligible for free or reduced-price lunch.

Table 1. Demographic Characteristics of Third Grade 2017-18 Cohort (N = 329)

	N	%
Gender		
Female	152	46.2%
Male	177	53.8%
Total	329	100.0%
Race/Ethnicity		
Black	42	12.8%
Hispanic	70	21.3%
Multiracial	28	8.5%
White	181	55.0%
Other or missing	8	2.4%
Total	329	100.0%
Other Demographic Characteristics		
Limited English proficiency	10	3.0%
English proficiency	319	97.0%
Total	329	100.0%
Students with disabilities	34	10.3%
Students without disabilities	295	89.7%
Total	329	100.0%
Free/reduced lunch eligible	118	35.9%
Not free/reduced lunch eligible	211	64.1%
Total	329	100.0%
Complete data for all years	18	5.5%
Incomplete data	311	94.5%
Total	329	100.0%

Data sources included Florida Standards Assessment Math scores and demographic information. Growth curve models considered student characteristics and assessed change over time.

Results Find Consistent Growth in Florida Virtual School Students

FLVS students did not decline in their math achievement during and after the pandemic. Instead, they demonstrated improved math achievement and, notably, students with disabilities exhibited lower baseline math scores compared to their peers but showed consistent growth over time. This finding is important because, according to national trends, academic achievement declined especially for students with disabilities in other learning environments.

In Conclusion: Consistent, Reliable Online Education Impacts Learning Gains

Full-time virtual school students in this study had higher math achievement during the pandemic than those reported elsewhere, which is likely attributable to their familiarity with effective ways to engage in online learning. FLVS is an established leader in online education, and the findings from this study emphasize the strong foundation online learners were able to depend on before, during, and after the pandemic.

The Future of This Study

Future research seeks to address attrition and attempt a replication study to enhance the generalizability of findings. Another aspect to consider is the diverse nature of exceptionalities among students with disabilities. Conducting targeted investigations in the future could help develop a deeper understanding of how various exceptionalities interact with virtual learning environments and their influence on math achievement, all of which was beyond the scope of this investigation.

*References

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