Unique Learning System

ULS GROWTH STUDY ELA & MATH

2021 - 2022 ACADEMIC YEAR

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UNIQUE LEARNING SYSTEM EFFICACY STUDY

PROGRAM DESCRIPTION

n2y is a US-based provider of instructional materials for students with moderate to significant disabilities. n2y has been providing instruction for these students for over 2 decades. Currently they serve their largest share of students through Unique Learning System (ULS), a cloud-based adaptive curriculum that helps classroom teachers deliver differentiated, standards-aligned content in reading, mathematics, language arts, science, and social studies.

SAMPLE DESCRIPTION

LOCATION: Nationwide

GRADES: Upper elementary

DEMOGRAPHICS: Majority in self-contained SPED classrooms

STUDY 1: English language arts skills

STUDY 2: Math skills

TIME PERIOD: 2021-2022 school year

DETAILS FOR BOTH STUDIES

n2y partnered with researchers to analyze pre- and post- Checkpoint assessments for ELA and math units of study in October, February, and May of the 2021-22 school year.

Checkpoint assessments within Unique Learning System units are delivered pre- and post-instruction. Each assessment item is aligned to a specific skill: 6 skills per assessment; 2 questions per skill.

Study 1 focuses on ELA, examining Reading and Word Recognition scores. Study 2 examines math scores. Both studies report results for Differentiated Levels 2 and 3 both combined and individually. We report results for the ELA study followed by results for the math study.

STUDY 1: ELA

STUDY 2: MATH

KEY FINDINGS ACROSS BOTH STUDIES

Unique Learning System had a notable impact across the school year for both ELA and math skills.

- **For both Reading and Math, nearly three-quarters** of students **increased or maintained** their scores from October to May, with **nearly half the sample increasing their scores.**
- **Results were even stronger for Word Recognition**, with **over 80% of students increasing or maintaining** their scores.

Nearly 3 Out of 4 Students Increased or Maintained Their Reading and Math Skills

4 Out of 5 Students Increased or Maintained Their Word Recognition Skills

UNIQUE LEARNING SYSTEM EFFICACY STUDY: ELA

ELA STUDY DETAILS

n2y partnered with LXD Research to analyze pre- and post- Checkpoint assessments for ELA units of study in October, February, and May of the 2021-22 school year. Of 849 students with October pre-test and May post-test data, 819 had a complete pair of Reading scores and 731 had a complete pair of Word Recognition scores. 56% of students were receiving differentiated instruction in Level 2 while 44% were receiving differentiated instruction in Level 3.

ELA SAMPLE DESCRIPTION

LOCATION: Nationwide

GRADES: Upper elementary

SIZE: 849 students in 73+ districts

DEMOGRAPHICS: 90% in self-contained SPED classrooms

SUBJECT FOCUS: English language arts skills

TIME PERIOD: 2021-2022 school year

KEY FINDINGS: ELA GAINS

- Unique Learning System had a notable impact across the school year for both Reading and Word Recognition.
- **71**% of the sample **increased** (49%) **or maintained** (22%) their Reading scores from October to May.
- **81**% of the sample **increased** (46%) **or maintained** (35%) their Word Recognition scores from October to May.

Percent of Students Who Increased or Maintained Their Accuracy in ELA Skills

Reading

49% Increased

71%

22% Maintained

Word Recognition

46% Increased

81%

35% Maintained
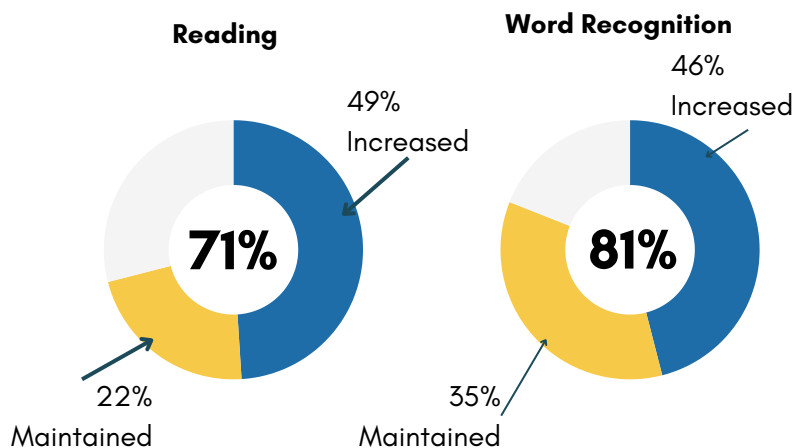
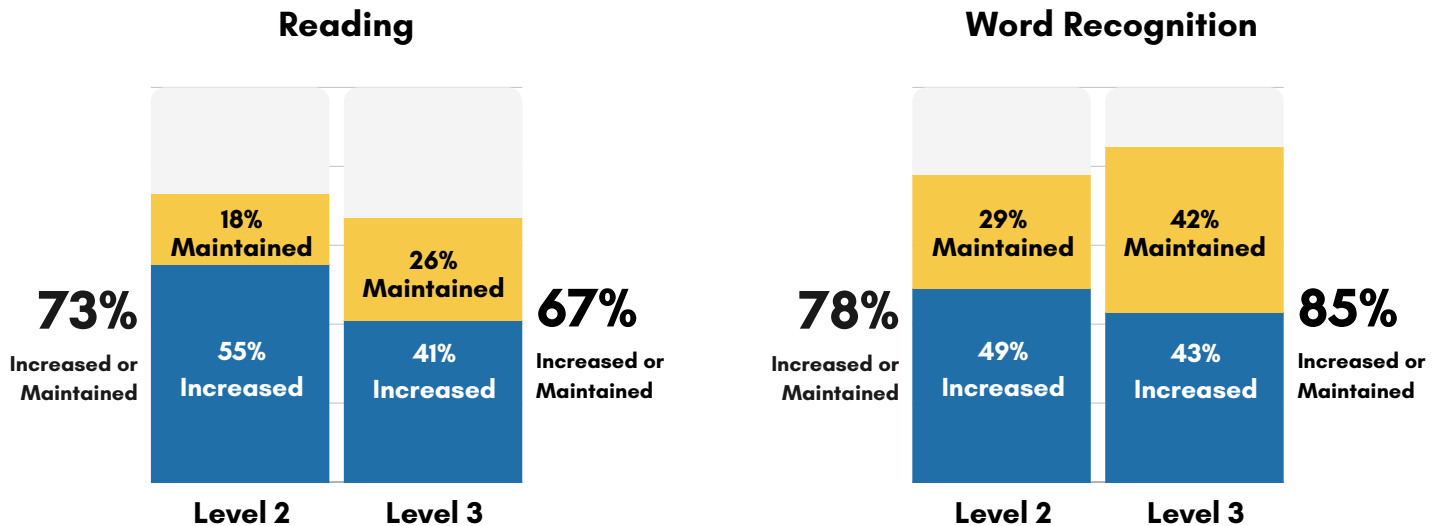## KEY FINDINGS: ELA GROWTH TRAJECTORIES

In addition to examining gains from October to May, researchers examined growth patterns from October to February to May.

- Students at both differentiation levels showed similar growth patterns across the school year, with students at Differentiated Level 3 scoring higher than Differentiated Level 2 at each measurement occasion.
  - Similar growth patterns across the school year with higher scores at the higher differentiation level indicate that by respecting individual differences in students' needs, ULS helped students at both differentiated levels grow at similar paces throughout the school year by learning at their own level.
  - From a measurement perspective, students at Differentiated Level 3 consistently scoring higher than Differentiated Level 2 is positive evidence that the assessments themselves, in addition to the ULS curriculum, are doing a good job at differentiating.

KEY FINDING: ULS HELPED LEARNERS GENERALIZE ELA SKILLS

- The Checkpoint assessment data shows Unique Learning System's impact on both Level 2 and Level 3 differentiation levels across the school year.
- The ability to maintain or improve proficiency in a reading skill is important and worth noting since it indicates students' ability to generalize reading skills from October
- through May.
- At Level 2:
  - **73**% of students **improved or maintained** their Reading scores across the year.
  - **78**% of students **improved or maintained** their Word Recognition scores across
  - the year.
- At Level 3:
  - **67**% of students **improved or maintained** their Reading scores across the year.
  - **85**% of students **improved or maintained** their Word Recognition scores across
  - the year.

Percent of Students Who Increased or Maintained Their Accuracy in ELA Skills, by Differentiation Level

Reading

73% Increased or Maintained

- **18% Maintained** (Level 2)
- **55% Increased** (Level 2)

67% Increased or Maintained

- **26% Maintained** (Level 3)
- **41% Increased** (Level 3)

Level 2 | Level 3

Word Recognition

78% Increased or Maintained

- **29% Maintained** (Level 2)
- **49% Increased** (Level 2)

85% Increased or Maintained

- **42% Maintained** (Level 3)
- **43% Increased** (Level 3)

Level 2 | Level 3

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TECHNICAL APPENDIX

The tables below shows the means along with standard deviations to highlight the individual variability among students.

- In each case, the mean is higher for Differentiated Level 3.
- In all but one measurement occasion (the May pre-test), Differentiated Level 3 has a lower standard deviation than Differentiated Level 2.

Differentiation Level	Reading Checkpoint Assessment					
	October Mean (SD)		February Mean (SD)		May Mean (SD)	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Level 2 (n = 211)	7.66 (2.41)	8.87 (2.36)	8.24 (2.62)	9.24 (2.61)	7.54 (2.34)	8.63 (2.27)
Level 3 (n = 162)	9.07 (2.25)	9.93 (1.98)	9.55 (2.40)	10.55 (1.92)	8.56 (2.35)	9.50 (1.95)
Levels 2 & 3 (n = 373)	8.27 (2.44)	9.33 (2.26)	8.81 (2.60)	9.81 (2.42)	7.98 (2.40)	9.01 (2.18)

Differentiation Level	Word Recognition Checkpoint Assessment					
	October Mean (SD)		February Mean (SD)		May Mean (SD)	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Level 2 (n = 176)	7.04 (4.41)	8.00 (4.30)	8.12 (4.02)	9.00 (3.85)	7.21 (3.62)	8.07 (4.08)
Level 3 (n = 149)	9.41 (3.32)	10.21 (2.90)	9.93 (3.07)	11.03 (2.14)	8.61 (4.10)	10.12 (2.98)
Levels 2 & 3 (n = 325)	8.13 (4.12)	9.02 (3.88)	8.95 (3.72)	9.93 (3.34)	7.65 (4.47)	9.01 (3.75)

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UNIQUE LEARNING SYSTEM EFFICACY STUDY: MATH

LXD RESEARCH
ESSA Level 3 Evidence

MATH STUDY DETAILS

n2y partnered with university researchers to analyze their data and engaged LXD Research & Consulting to validate this analysis.

A data set with pre- and post-Checkpoint assessment for mathematics units of study in October, February, and May of the 2021-22 school year was selected for analysis. The set includes 333 intermediate (upper elementary) students who completed Checkpoint testing in all three months. Among the students, 182 received differentiated instruction in Level 2, while 151 students received differentiated instruction in Level 3.

MATH SAMPLE DESCRIPTION

LOCATION: Nationwide

GRADES: Upper elementary

SIZE: 333 students from 115 districts

DEMOGRAPHICS: 88% in self-contained SPED classrooms

SUBJECT FOCUS: Mathematics skills

TIME PERIOD: 2021-2022 school year

KEY FINDINGS: MATH

Unique Learning System had a notable impact across the school year based on Checkpoint math skills assessment data from the 333 students in the sample set.
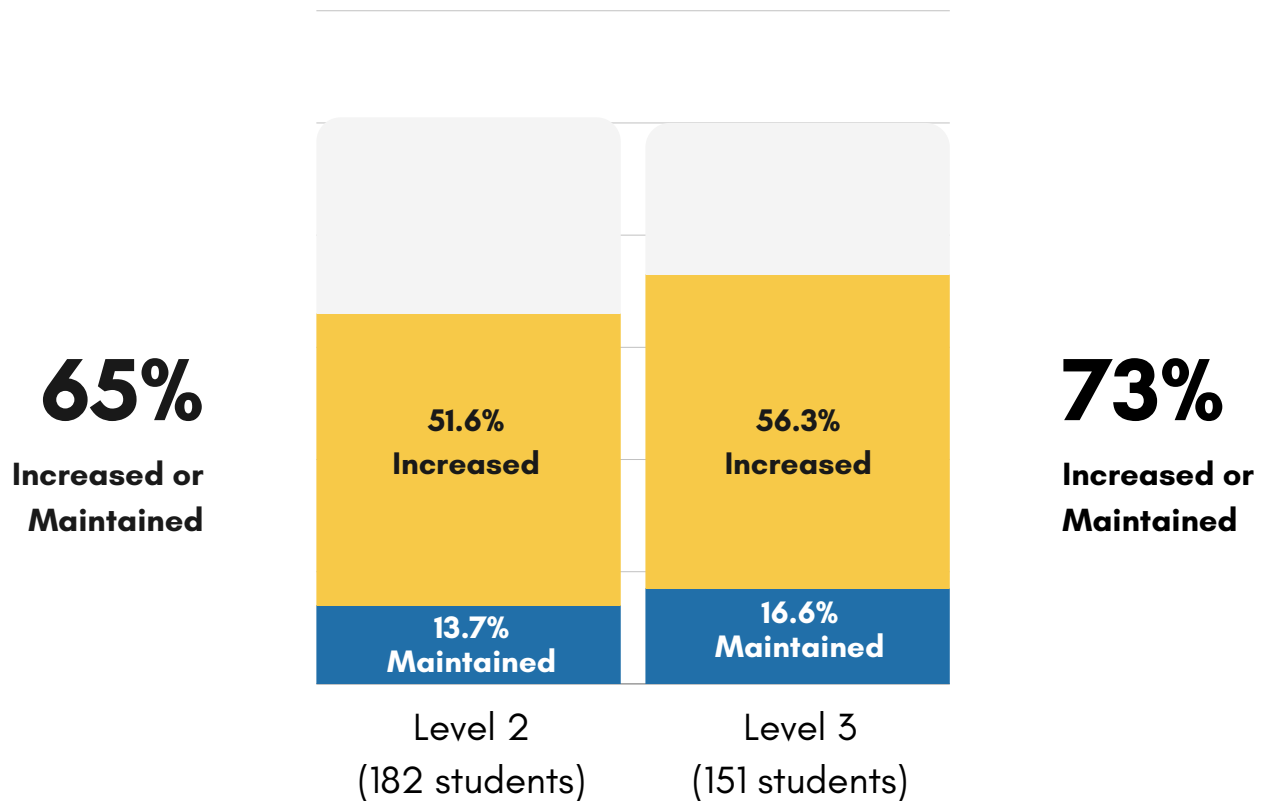
- **74% of the same sample increased** (46%) **or maintained** (28%) their accuracy from October to May.
- Results by differentiation level indicated 65% of Level 2 and 73% of Level 3 increased or maintained their accuracy from October to May (see page 8).

Percent of Students Who Increased or Maintained Their Accuracy in Math Skills

74%

46% Increased

28% Maintained
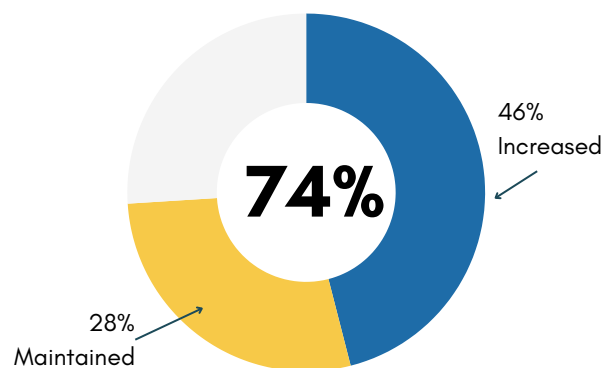
ULS HELPED LEARNERS GENERALIZE MATH SKILLS

- The data shows Unique Learning System's impact on both Level 2 and Level 3 differentiation levels based on analyzing the change in students' accuracy on Checkpoint assessments from October to May.

- Among Level 2 students, 65% increased or maintained their accuracy across the year.

- Among Level 3 students, 73% increased or maintained their accuracy across the year.

- The ability to increase or maintain proficiency in a math skill is important and worth noting since it indicates students' ability to generalize math skills from October through May.

65%

Increased or Maintained

51.6% Increased

13.7% Maintained

Level 2
(182 students)

56.3% Increased

16.6% Maintained

Level 3
(151 students)

73%

Increased or Maintained

Summary of Unique Learning System
Independent University Research Study

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LXD Research is an independent research firm that evaluates educational programs with ESSA-aligned methods.

Learn more at www.lxdresearch.com

n2y offers special education solutions that prepare students for the ultimate test: succeeding in life. Empower achievement and enrich lives with differentiated, standards-based academic and life skills lessons, skill-based intervention, comprehensive assessment and data collection, integrated behavior management and intervention, engaging educational games, relevant symbol communication tools, enriching current events content, and a powerful, collaborative system for IEP development and implementation.

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