A Study of the Impact of Apex Learning Digital Curriculum on Credit Recovery Student Outcomes in Dallas ISD

Dallas Independent School District, TX

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Introduction

After five years of using NovaNet, Dallas ISD switched digital curriculum providers. District leadership chose Apex Learning Comprehensive Courses and Tutorials to use in the Reconnection Center Program (Reconnect). In the 2014/2015 school year, Reconnect implemented Apex Learning Comprehensive Courses and Tutorials district-wide in 34 Dallas ISD high schools.

The goal of Reconnect is to keep students on track to be promoted and to graduate with their cohort. Reconnect offers three options, or programs, to keep students on track to graduate on time: Credit Recovery, Six-Weeks Recovery, and EOC Exam Preparation/Remediation.

Apex Learning Tutorials were used for the EOC Exam Preparation/Remediation program. Apex Learning Comprehensive Courses were used for the Six-Weeks Recovery and Credit Recovery programs. The Six-Weeks Recovery program was designed as an intervention to allow students who failed a six-week period in a course to recover coursework before and/or after school while remaining enrolled in the course. The Credit Recovery program was designed to allow students to recover credit for incomplete or failed courses in the computer lab during assigned periods while remaining enrolled in other traditional classroom courses.

After completing Apex Learning digital curriculum, students take the Dallas ISD Assessment of Course Performance (ACP). ACP assessments are standardized final semester exams that measure the taught curriculum in Mathematics, Reading/Language Arts, Science, Social Studies, English as a Second Language (ESL), World Languages, Technology, Health, and Fine Arts courses. Credit is awarded based on the final course grade which is a weighted average of the coursework grade and the exam grade.

This study examined the impact of Apex Learning digital curriculum on academic outcomes of students attending the Reconnection Center Program during the 2014 – 2015 school year. Specifically, the ACP pass rates, percent of students promoted, and percent of twelfth-grade students graduating with their cohort for students participating in Reconnect in 2014 – 2015 were compared to the outcomes of students participating in Reconnect in the 2013 – 2014 school year, the year prior to implementing Apex Learning curriculum.

Data used in this study were available in two Reconnect evaluation reports produced by Dallas ISD Department of Evaluation and Assessment specialists. The 2014 – 2015 evaluation reported academic outcomes for students participating in Reconnect after the first year of implementing Apex Learning digital curriculum district-wide. The 2013 – 2014 evaluation reported academic outcomes for students participating in Reconnect the year prior to implementing Apex Learning district-wide. Tests of the Difference of Two Independent Proportions were used to analyze the data.

In the 2014 – 2015 school year, 8.2% of the district's enrollment in Grades 9 – 12 (3,193 students) used Apex Learning digital curriculum in the Reconnect program. The demographic characteristics (see table 1 in the appendix) of students participating in Reconnect include:
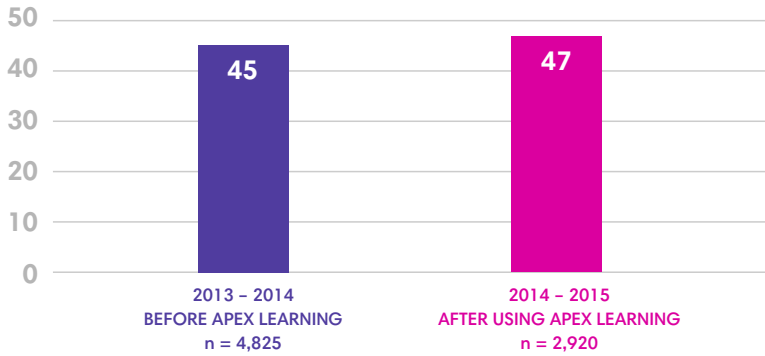
• 65% Hispanic/Latino, 58% male, 50% Non-LEP

• 86% economic disadvantaged

• 47% enrolled in 12th grade

Results

Do students who used Apex Learning digital curriculum in Reconnect achieve the same or greater ACP pass rates than students participating in Reconnect the year prior to using Apex Learning curriculum?

Students using Apex Learning digital curriculum in Reconnect passed the ACP exam at rates greater than students participating in Reconnect the year prior to using Apex Learning curriculum (graph 1). The effect size, or magnitude of the difference, is large (see table 2 in the appendix).
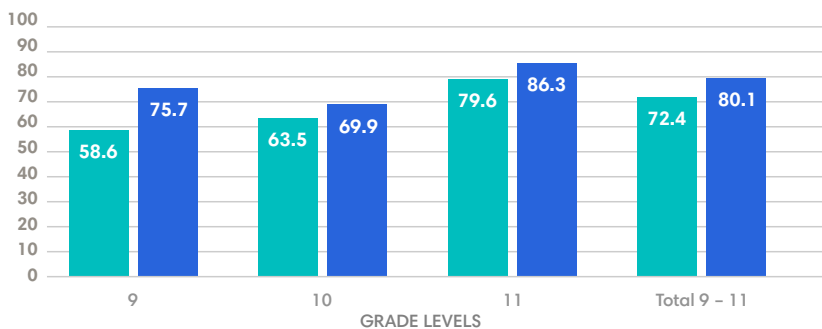
Percent Passing ACP Exam by School Year

†Statistically significant difference p < .05.

Do students in Reconnect who used Apex Learning digital curriculum recover credit and advance to the next grade level at the same or greater rates than students participating in Reconnect the year prior to using Apex Learning curriculum?

The percent of students in Reconnect using Apex Learning digital curriculum promoted to the next grade level is significantly greater than students participating in Reconnect the year before using Apex Learning for grades 9 through 11 and all grade levels combined (graph 2). The effect size of the differences between groups for each grade level and all grades combined is large, ranging from 1.95 to 4.70 (see table 3 in the appendix).

Percent Promoted by Grade Level and School Year

Group sizes range from 140 to 1,379
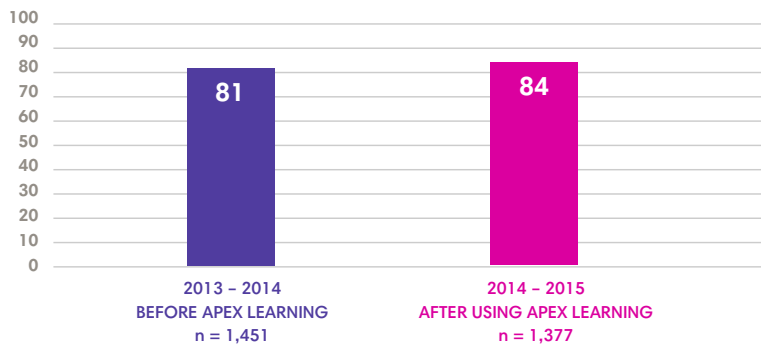†Statistically significant difference p< .05.

● 2013/14 BEFORE APEX LEARNING
● 2014/15 AFTER USING APEX LEARNING

Is the percent of twelfth-grade students graduating with their cohort who used Apex Learning digital curriculum in Reconnect the same or greater than students participating in Reconnect the year prior to using Apex Learning curriculum?

The percent of 12th grade students graduating with their cohort who used Apex Learning digital curriculum in Reconnect is significantly greater than the percent graduating the year before using Apex Learning curriculum (graph 3). The effect size of the difference is large (ES = 1.95) (see table 4 in the appendix).

GRAPH 3:
Percent of 12th Grade Students Graduating on Time

†Statistically significant difference p< .05.

Study Description

Study Design

This study examined the effectiveness of Apex Learning digital curriculum using a post-test-only quasi-experimental design.

Data Preparation

This study used extant data available in the Dallas ISD evaluation reports titled *Reconnection Center Program 2013-2014* and *Reconnection Center Program 2014-2015*. No data preparation was required.

The Treatment Group

Students participating in Reconnect during the 2014 – 2015 school year served as the treatment group for this study. In the 2014 – 2015 school year, Reconnect implemented Apex Learning digital curriculum in 34 high schools. This group, referred to as Apex Learning users throughout this report, completed Apex Learning Comprehensive Courses before completing an ACP semester exam. The outcome data reported for the treatment group was available in the Dallas ISD evaluation report titled *Reconnection Center Program 2014-2015.*

The Comparison Group

Students participating in Reconnect during the 2013 – 2014 school year served as the comparison group for this study. In the 2013 – 2014 school year, Reconnect piloted Apex Learning digital curriculum in three out of 34 high schools. The Reconnect program located in the remaining 31 high schools implemented NovaNet. The outcome data reported for the comparison group was available in the Dallas ISD evaluation report titled *Reconnection Center Program 2013-2014.*

Analysis

Tests of the Difference of Two Independent Proportions were conducted to address each question.

Outcome Measures

Three measures of academic outcomes were used to examine the impact of using Apex Learning digital curriculum on academic achievement.

Assessment of Course Performance (ACP) exam pass rates

The Dallas ISD, Assessment of Course Performance (ACP) exams are standardized, final-semester tests that measure the taught curriculum in Mathematics, Reading/Language Arts, Science, Social Studies, English as a Second Language (ESL), World Languages, Technology, Health, and Fine Arts courses. ACP exams were administered at the end of the fall and spring semesters. The standard for passing is a scaled score of 70 or above.

Percent of Students Promoted to the Next Grade Level

Grade-level promotion depends on the number of credits accumulated. Students are awarded credit based on the final course grade. In high school, ACP exam scaled scores account for 15% of the final course grade and coursework accounts for the remaining 85%.

Percent of 12th Grade Students Graduating with their Cohort

The denominator used to calculate the percent of twelfth-grade students graduating with their cohort excludes verified non-dropout leavers.

References

Weir, D. (August 2014) *Reconnection Center Program 2013-2014*. Retrieved on 4/20/16 from: http://www.dallasisd.org/cms/lib/TX01001475/Centricity/Domain/98/Evaluation/13-14/FinalRpts/EA14-132-2-Reconnection-Center-Final.pdf

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Williams-Palmer, K. & Kim, J (no date) *Assessment of Course Performance (ACP): 2014-15*. Retrieved on 3/31/16 from: http://www.dallasisd.org/cms/lib/TX01001475/Centricity/domain/98/assessment/sna/EA15-220-4%20ACP%20AAG.pdf

Appendix

Table 1. Reconnect Student Demographic Characteristics				
	School Year 2013 – 2014		School Year 2014 – 2015	
	N	Percent	N	Percent
Total Students	3,044	100%	3,193	100%
Grades 9 – 11	1,248	41.0%	1,697	53.1%
Grade 12	1,796	59.0%	1,496	46.9%
Male	1,754	57.6%	1,847	57.8%
Female	1,291	42.4%	1,346	42.2%
Hispanic/Latino	1,976	64.9%	2,134	64.9%
African American	892	29.3%	896	29.3%
White	128	4.2%	103	4.2%
Other	49	1.6%	60	1.9%
Non-LEP	1,578	51.8%	1,593	49.9%
LEP	486	16.0%	685	21.5%
Exited LEP	980	32.2%	915	28.7%
Economic Disadvantaged	2,395	78.7%	3,752	86.2%

Apex Learning implemented in 2014 – 2015.

Table 2. Percent of Students Passing ACP Exams Administered in Reconnection Centers					
				Test of the Difference of Two Independent Proportions	
School Year	N Tested	N Passing	Percent Passing	Z-Ratio	Sig. p
2013 – 2014	4,825	2,160	44.8	2.22	0.01†
2014 – 2015	2,920	1,383	47.4		

†Statistically significant difference p < .05.

Apex Learning implemented in 2014 – 2015.

Table 3. Promotion Rates of Reconnect Students						
					Test of the Difference of Two Independent Proportions	
Grade	School Year	N Students	N Promoted	Percent Promoted	Z-Ratio	Sig. p
9	2013 – 2014	162	95	58.6	3.14	0.00†
9	2014 – 2015	140	106	75.7		
10	2013 – 2014	400	254	63.5	1.95	0.03†
10	2014 – 2015	425	297	69.9		
11	2013 – 2014	817	650	79.6	3.60	0.00†
11	2014 – 2015	796	687	86.3		
Total 9 – 11	2013 – 2014	1,379	999	72.4	4.70	0.00†
Total 9 – 11	2014 – 2015	1,361	1,090	80.1		

†Statistically significant difference p < .05.
Apex Learning implemented in 2014 – 2015.

Table 4. 12th Grade Students Graduating on Time					
				Test of the Difference of Two Independent Proportions	
School Year	N Students	N Graduating	Percent Graduating	Z-Ratio	Sig. p
2013 – 2014	1,451	1,172	81	1.95	0.03†
2014 – 2015	1,377	1,151	84		

†Statistically significant difference p < .05.
Apex Learning implemented in 2014 – 2015.

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