

Credit Recovery Students Using Edgenuity Recover 26 Percent More Credits and Graduate at a Higher Rate than Their Peers

During the 2015, 2016, and 2017 school years, Cypress-Fairbanks Independent School District (CFISD) students who passed the State of Texas Assessment of Academic Readiness (STAAR) End-of-Course (EOC) assessment, but failed the corresponding course in English I, English II, Algebra I, U.S. History, or Biology, were given the option to retake the failed course in a traditional credit recovery classroom or using an Edgenuity online credit recovery course. Across all subjects and years, results show that students enrolled in Edgenuity’s online English I, English II, Algebra I, U.S. History, and Biology courses obtained more credits (99.7 percent versus 73.8 percent) and achieved higher course grades (79.6 percent versus 64.5 percent) than an equivalent group of students¹ enrolled in a face-to-face credit recovery course (see Figure 1).

CYPRESS-FAIRBANKS ISD DEMOGRAPHICS:

Study Group: 1,962 students

Hispanic:	61%	Two or more races:	1%
African American:	25%	Native American:	1%
Caucasian:	10%		
Asian:	2%		

Figure 1: Cypress-Fairbanks ISD Students, Treatment and Comparison Groups (N=1,962)
Course Grade and Credit Attainment Rates, School Year 2015-16 to School Year 2017-18

Subject	TREATMENT GROUP					COMPARISON GROUP				
	Number of Students	Number of Enrollments	Average Grade	# Credits Attempted	% Credits Earned	Number of Students	Number of Enrollments	Average Grade	# Credits Attempted	% Credits Earned
Algebra I	128	136	77.0%***	68	99.3%*	128	185	65.9%***	92.5	69.7%*
English I	127	134	80.3%***	67	100.0%*	127	151	62.4%***	75.5	68.2%*
English II	207	220	79.1%***	110	100.0%***	207	255	65.2%***	127.5	76.9%***
Biology	215	222	79.5%***	111	100.0%**	215	282	62.4%***	141	70.6%**
U.S. History	304	317	82.2%***	158.5	99.4%*	304	406	66.5%***	203	78.1%*
All	981	1,029	80.0%***	514.5	99.7%***	981	1,279	64.6%***	639.5	73.5%***

*p<0.05; **p<0.01; ***p<0.001

Note: Students earned 0.5 credits for a semester-long course and one credit for a year-long course.

From 2015 to 2018, 981 high school students enrolled in Edgenuity online credit recovery courses earned more credits and higher course grades than their non-participating peers.

Results also showed that 12th grade students enrolled in Edgenuity credit recovery courses graduated at a higher rate than those who took the face-to-face credit recovery courses (see Figure 2).

Figure 2. Cypress Fairbanks ISD Students, Treatment and Comparison Groups (N=714)

12th Grade Graduation Rates, Spring 2016 to Spring 2018

Subject	TREATMENT GROUP		COMPARISON GROUP	
	# 12th Graders	12th Graders Graduated	# 12th Graders	12th Graders Graduated
Algebra I	7	5 (71.4%)	7	4 (57.1%)
English I	3	3 (100.0%)	3	3 (100.0%)
English II	63	52 (82.5%*)	63	51 (81.0%*)
Biology	28	25 (89.3%**)	28	19 (67.9%**)
U.S. History	256	209 (81.6%***)	256	206 (80.5%***)
All	357	294 (82.4%***)	357	283 (79.3%***)

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.001$

Challenge

CFISD is a large independent school district outside of Houston that serves approximately 116,250 students. District administrators noticed that there was a subset of students who passed the STAAR EOC exam for the five EOC subjects (Algebra I, English I, English II, Biology, U.S. History), but failed the corresponding course. They wanted to come up with a flexible solution to help students earn the credits needed to graduate.

Solution

CFISD decided to offer online and face-to-face credit recovery courses to students. They examined a number of online credit recovery programs and chose Edgenuity Courseware because of its easily accessible interface. Students who chose to use online credit recovery courses were expected to use Edgenuity one class period per day in computer labs, but were also encouraged to access their courses outside of school. Students who enrolled in face-to-face credit recovery courses also received instruction for one class period per day.

Lessons Learned

Researchers compared the credit attainment, overall grade, and graduation rates of students enrolled in Edgenuity online courses to an equivalent group of students, matched on EOC test scores and demographics, who used face-to-face credit recovery courses. Results showed that Edgenuity students obtained more credits, achieved higher course grades, and graduated at a higher rate than their peers in the traditional credit recovery course. In interviews, district staff said the online credit recovery courses supported student learning by:

- **Making content material more personalized and accessible:** Edgenuity courses use a variety of instructional formats, including video lectures, graphic displays, simulations, closed captioning, and text (with optional read-aloud support). Students could learn content material in a variety of ways.

- **Customizing courses to match CFISD’s curriculum scope and sequence:** Using Edgenuity’s Texas-specific courses, district curriculum staff customized the content of online courses to match the scope and sequence of face-to-face courses. This ensured students received remediation in specific skills and topics they previously failed to master.
- **Arming teachers with additional data to track progress:** Computer lab managers had access to students’ real-time progress, engagement, and achievement data. They were able to closely monitor and use this data to motivate students and help them stay on track.

¹ This study used a matched-comparison group design to evaluate the effects of Edgenuity credit recovery courses on student achievement. The analytical sample consisted of (1) a group of students who used Edgenuity online credit recovery courses; and (2) a comparison group of equivalent students who took a face-to-face credit recovery course. Edgenuity students were included in the analysis if they completed at least 100 percent of course activities with a grade greater than or equal to 70 percent and/or if their enrollment status was marked “completed” by a teacher. Researchers used exact matching to identify a comparison group whose baseline characteristics were similar to those of Edgenuity students at the beginning of the intervention. First, researchers identified comparison students whose grade level, gender, and English language status were identical to the Edgenuity sample. Next, researchers paired students based on their ethnicity. White students were required to be matched with white students. For those not self-identified as white, a match within ethnicity was made. If there was no matching student available, a student match was made by randomly selecting from remaining students who were from one of the remaining race/ethnicity categories. If a match using these procedures was not available for the Edgenuity student, that student was removed from the analysis. Finally, researchers used paired-t tests to determine whether performance on the prior year STAAR EOC assessments differed significantly between the treatment and comparison groups. No significant differences were found; therefore, the matching procedures used were successful in creating equivalent groups. See Appendix A.

Appendix A: Cypress-Fairbanks ISD Students, Treatment and Comparison Groups

Demographic		2015-16		2016-17		2017-18	
		Treatment	Comparison	Treatment	Comparison	Treatment	Comparison
Algebra I	All Students	51	51	46	46	31	31
Grade Level	9	37 (72.5%)	37 (72.5%)	25 (54.3%)	25 (54.3%)	19 (61.3%)	19 (61.3%)
	10	3 (5.9%)	3 (5.9%)	13 (28.3%)	13 (28.3%)	4 (12.9%)	4 (12.9%)
	11	9 (17.6%)	9 (17.6%)	5 (10.9%)	5 (10.9%)	6 (19.4%)	6 (19.4%)
	12	2 (3.9%)	2 (3.9%)	3 (6.5%)	3 (6.5%)	2 (6.5%)	2 (6.5%)
Gender	Male	28 (54.9%)	28 (54.9%)	27 (58.7%)	27 (58.7%)	19 (61.3%)	19 (61.3%)
	Female	23 (45.1%)	23 (45.1%)	19 (41.3%)	19 (41.3%)	12 (38.7%)	12 (38.7%)
Ethnicity	Asian	1 (2.0%)	1 (2.0%)	–	–	1 (3.2%)	1 (3.2%)
	Black	10 (19.6%)	10 (19.6%)	13 (28.3%)	13 (28.3%)	9 (29.0%)	9 (29.0%)
	Hispanic	37 (72.5%)	37 (72.5%)	32 (69.6%)	32 (69.6%)	16 (51.6%)	15 (48.4%)
	Multiracial	–	–	–	–	–	–
	Native American	–	–	–	–	–	1 (3.2%)
	White	3 (5.9%)	3 (5.9%)	1 (2.2%)	1 (2.2%)	5 (16.1%)	5 (16.1%)
LEP	Yes	3 (5.9%)	3 (5.9%)	6 (13.0%)	6 (13.0%)	3 (9.7%)	3 (9.7%)
		48 (94.1%)	48 (94.1%)	40 (87.0%)	40 (87.0%)	28 (90.3%)	28 (90.3%)
Average Previous STAAR Score		3681.6	3681.3	3712.2	3766.3	3812.4	3744.9
English I	All Students	41	41	41	41	45	45
Grade Level	9	19 (46.3%)	19 (46.3%)	26 (63.4%)	26 (63.4%)	33 (73.3%)	33 (73.3%)
	10	13 (31.7%)	13 (31.7%)	9 (22.0%)	9 (22.0%)	11 (24.4%)	11 (24.4%)
	11	8 (19.5%)	8 (19.5%)	4 (9.8%)	4 (9.8%)	1 (2.2%)	1 (2.2%)
	12	1 (2.4%)	1 (2.4%)	2 (4.9%)	2 (4.9%)	–	–
Gender	Male	24 (58.5%)	24 (58.5%)	22 (53.7%)	22 (53.7%)	26 (57.8%)	26 (57.8%)
	Female	17 (41.5%)	17 (41.5%)	19 (46.3%)	19 (46.3%)	19 (42.2%)	19 (42.2%)
Ethnicity	Asian	1 (2.4%)	–	2 (4.9%)	–	–	–
	Black	7 (17.1%)	7 (17.1%)	13 (31.7%)	14 (34.1%)	20 (44.4%)	20 (44.4%)
	Hispanic	27 (65.9%)	29 (70.7%)	19 (46.3%)	22 (53.7%)	19 (42.2%)	20 (44.4%)
	Multiracial	1 (2.4%)	–	2 (4.9%)	–	2 (4.4%)	1 (2.2%)
	Native American	1 (2.4%)	1 (2.4%)	–	–	–	–
	White	4 (9.8%)	4 (9.8%)	5 (12.2%)	5 (12.2%)	4 (8.9%)	4 (8.9%)
LEP	Yes	1 (2.4%)	1 (2.4%)	1 (2.4%)	1 (2.4%)	1 (2.2%)	1 (2.2%)
		40 (97.6%)	40 (97.6%)	40 (97.6%)	40 (97.6%)	44 (97.8%)	44 (97.8%)
Average Previous STAAR Score		3968.9	3928.3	3953.8	3919.1	3973.5	3956.2

Demographic		2015-16		2016-17		2017-18	
		Treatment	Comparison	Treatment	Comparison	Treatment	Comparison
English II	All Students	65	65	79	79	63	63
Grade Level	9	4 (6.2%)	4 (6.2%)	5 (6.3%)	5 (6.3%)	3 (4.8%)	3 (4.8%)
	10	4 (6.2%)	4 (6.2%)	3 (3.8%)	3 (3.8%)	8 (12.7)	8 (12.7)
	11	33 (50.8%)	33 (50.8%)	44 (55.7%)	44 (55.7%)	40 (63.5%)	40 (63.5%)
	12	24 (36.9%)	24 (36.9%)	27 (34.2%)	27 (34.2%)	12 (19.0%)	12 (19.0%)
Gender	Male	36 (55.4%)	36 (55.4%)	50 (63.3%)	50 (63.3%)	36 (57.1%)	36 (57.1%)
	Female	29 (44.6%)	29 (44.6%)	29 (36.7%)	29 (36.7%)	27 (42.9%)	27 (42.9%)
Ethnicity	Asian	4 (6.2%)	3 (4.6%)	1 (1.3%)	–	–	–
	Black	11 (16.9%)	13 (20.0%)	20 (25.3%)	13 (16.5%)	16 (25.4%)	17 (27.0%)
	Hispanic	43 (66.2%)	43 (66.2%)	50 (63.3%)	59 (74.7%)	42 (66.7%)	42 (66.7%)
	Multiracial	1 (1.5%)	1 (1.5%)	1 (1.3%)	1 (1.3%)	1 (1.6%)	–
	Native American	1 (1.5%)	–	1 (1.3%)	–	–	–
	White	5 (7.7%)	5 (7.7%)	6 (7.6%)	6 (7.6%)	4 (6.3%)	4 (6.3%)
LEP	Yes	3 (4.6%)	3 (4.6%)	2 (2.5%)	2 (2.5%)	1 (1.6%)	1 (1.6%)
		62 (95.4%)	62 (95.4%)	77 (97.5%)	77 (97.5%)	62 (98.4%)	62 (98.4%)
Average Previous STAAR Score		3998.5	3915.4	3961.0	3938.1	3966.0	3957.4
Biology	All Students	61	61	92	92	62	62
Grade Level	9	18 (19.5%)	18 (19.5%)	33 (35.9%)	33 (35.9%)	22 (35.5%)	22 (35.5%)
	10	14 (23.0%)	14 (23.0%)	21 (22.8%)	21 (22.8%)	24 (38.7%)	24 (38.7%)
	11	17 (27.9%)	17 (27.9%)	27 (29.3%)	27 (29.3%)	11 (17.7%)	11 (17.7%)
	12	12 (19.7%)	12 (19.7%)	11 (12.0%)	11 (12.0%)	5 (8.1%)	5 (8.1%)
Gender	Male	38 (62.3%)	38 (62.3%)	58 (63.0%)	58 (63.0%)	36 (58.1%)	36 (58.1%)
	Female	23 (37.7%)	23 (37.7%)	34 (37.0%)	34 (37.0%)	26 (41.9%)	26 (41.9%)
Ethnicity	Asian	2 (3.3%)	1 (1.6%)	2 (2.2%)	1 (1.1%)	–	1 (1.6%)
	Black	14 (23.0%)	14 (23.0%)	31 (33.7%)	32 (34.8%)	13 (21.0%)	15 (24.2%)
	Hispanic	37 (60.7%)	38 (62.3%)	50 (54.3%)	50 (54.3%)	40 (64.5%)	38 (61.3%)
	Multiracial	1 (1.6%)	1 (1.6%)	–	–	1 (1.6%)	1 (1.6%)
	Native American	–	–	1 (1.1%)	1 (1.1%)	1 (1.6%)	–
	White	7 (11.5%)	7 (11.5%)	8 (8.7%)	8 (8.7%)	7 (11.3%)	7 (11.3%)
LEP	Yes	4 (6.6%)	4 (6.6%)	8 (8.7%)	8 (8.7%)	4 (6.5%)	4 (6.5%)
		57 (93.4%)	57 (93.4%)	84 (91.3%)	84 (91.3%)	58 (93.5%)	58 (93.5%)
Average Previous STAAR Score		3840.9	3767.3	3795.6	3758.9	3860.7	3807.1

Demographic		2015-16		2016-17		2017-18	
		Treatment	Comparison	Treatment	Comparison	Treatment	Comparison
U.S. History	All Students	100	100	104	104	100	100
Grade Level	9	–	–	3 (2.9%)	3 (2.9%)	2 (2.0%)	2 (2.0%)
	10	–	–	–	–	1 (1.0%)	1 (1.0%)
	11	11 (11.0%)	11 (11.0%)	19 (18.3%)	19 (18.3%)	12 (12.0%)	12 (12.0%)
	12	89 (89.0%)	89 (89.0%)	82 (78.8%)	82 (78.8%)	85 (85.0%)	85 (85.0%)
Gender	Male	62 (62.0%)	62 (62.0%)	65 (62.5%)	65 (62.5%)	65 (65.0%)	65 (65.0%)
	Female	38 (38.0%)	38 (38.0%)	39 (37.5%)	39 (37.5%)	35 (35.0%)	35 (35.0%)
Ethnicity	Asian	3 (3.0%)	2 (2.0%)	2 (1.9%)	2 (1.9%)	2 (2.0%)	2 (2.0%)
	Black	24 (24.0%)	25 (25.0%)	20 (19.2%)	16 (15.4%)	27 (27.0%)	27 (27.0%)
	Hispanic	58 (58.0%)	59 (59.0%)	67 (64.4%)	72 (69.2%)	56 (56.0%)	57 (57.0%)
	Multiracial	3 (3.0%)	2 (2.0%)	1 (1.0%)	–	1 (1.0%)	–
	Native American	–	–	–	–	–	–
	White	12 (12.0%)	12 (12.0%)	14 (13.5%)	14 (13.5%)	14 (14.0%)	14 (14.0%)
LEP	Yes	9 (9.0%)	9 (9.0%)	9 (8.7%)	9 (8.7%)	9 (9.0%)	9 (9.0%)
		91 (91.0%)	91 (91.0%)	95 (91.3%)	95 (91.3%)	91 (91.0%)	91 (91.0%)
Average Previous STAAR Score		3884.5	3937.9	3946.6	3988.9	3988.8	4038.5