RESEARCH BRIEF 3

Online Credit Recovery:
Initial Findings for Ninth-Grade English

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About this research brief

This research brief is the third in a series of briefs for the *Online Credit Recovery Study*. In the first brief, we provided an overview of the study and described the online learning model tested. In this brief, we highlight key findings about implementation and initial outcomes for ninth grade English credit recovery classes (English 9).[1]

Study overview

The study compares an online learning model for credit recovery with the more typical teacher-directed credit recovery model. The online learning model implemented for the study included an online curriculum provided by a vendor and credentialed in-class teachers provided by the participating schools. The in-class teachers could provide individualized support and supplement the digital instruction.

To estimate the effectiveness of the online learning model, we compared the online classes with teacher-directed classes at each study school.

Key Findings for English 9

- Two features of personalized instruction (performance feedback and connection of content to student needs) were less common in the online classes than in the teacher-directed classes, and two other instructional features were not significantly different in the two types of classes.

- Student use of the online program, in hours spent and content completed, fell below expectations.

- Students reported more positive engagement and personalized instruction in the online classes than in the teacher-directed classes.

- Students in the online and teacher-directed classes had similar performance on an end-of-course English test.

- Student credit recovery rates were lower in the online classes than in the teacher-directed classes.

We used a lottery process to determine whether each student enrolled in a teacher-directed class or a class that used the online learning model.

This "random assignment" approach allows us to draw valid conclusions about the way differences between the two types of classes affected student experiences and outcomes.

All classes were in the Los Angeles Unified School District and took place in a standard high school classroom during the district's 5-week summer session.

The analyses for this brief focus on students who failed English 9 during their first year of high school and retook the class during the summer before their second year of high school (see Figure 1).[2]

For results on Algebra 1 credit recovery, please see Brief 2 in this series. More information about the study's design and methods is available in Brief 1 and in a technical supplement.

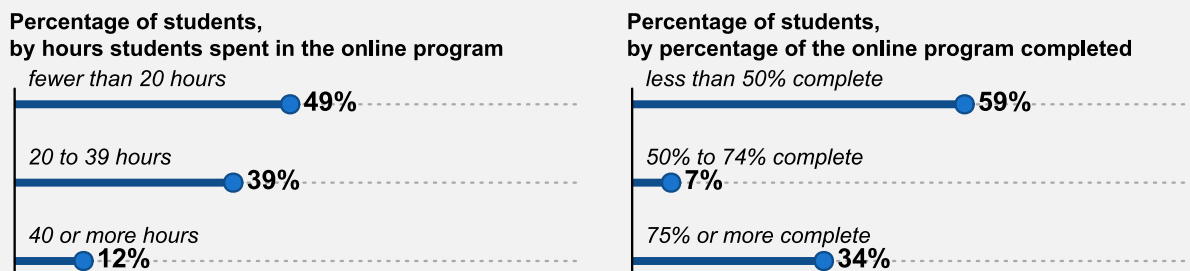## Figure 1. Number of Study Participants for the English 9 Summer Classes

19 schools **70** classes **1,124** students
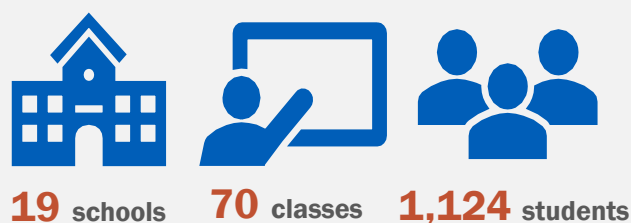
Note. The study took place during the 2018 and 2019 summer terms for English 9.

Student use of the online program was lower than expected

A critical feature of the online learning model is that students use an online program to work through the course content at their own pace. Although there are no formal guidelines for time spent in the online program, the online course provider (Edgenuity) suggested that most students should spend at least 40 hours working through the material to complete the course during the 5-week summer session.

However, only 12% of students assigned to an English 9 online class spent at least 40 hours working in the online program (see Figure 2). Similarly, only a third of the students (34%) completed most of the online course content (75% of the content).

Figure 2. Number of Hours Students Spent in the Online Program and Percentage of Online Program Completed

Percentage of students, by hours students spent in the online program
- *fewer than 20 hours* **49%**
- *20 to 39 hours* **39%**
- *40 or more hours* **12%**

Percentage of students, by percentage of the online program completed
- *less than 50% complete* **59%**
- *50% to 74% complete* **7%**
- *75% or more complete* **34%**

Note. Based on 564 students assigned to an English 9 online class. Approximately 82% of the students assigned to an online class accessed the online program at least once.

Two of four features of personalized instruction were less common in online classes than in teacher-directed classes

We expected the online classes, which combined the online program and in-class teacher support, would provide a more personalized instructional environment than the teacher-directed classes. To examine this hypothesis, we asked teachers a series of survey questions about four instructional features that can facilitate a personalized instructional environment: (1) individualized pacing, which reflects students' ability to work through the course material at their own pace; (2) opportunities to provide performance feedback; (3) instructional support; and (4) the connection of course content to student needs.

Based on the teacher responses, we assigned classes a score between 0 and 100 for each feature. A score of 50 represents the average response across all credit recovery classes in the study.[3] A higher score for a class means that the instructional feature was more common than in other classes.

Counter to our expectation, two of the four instructional features were significantly less common, on average, in the online classes than in the teacher-directed classes (see Figure 3).

Specifically, the performance feedback score was 22 points lower in the average online class than in the average teacher-directed class (equivalent to a 0.56 standard deviation difference), and the connection of content to student needs score was 52 points lower (about a 0.81 standard deviation difference). The other two features, individualized pacing and instructional support, were not, on average, statistically different in the online and teacher-directed classes.

Figure 3. Relative Prevalence of Instructional Features in the Online and Teacher-Directed English 9 Classes

⊖ Teacher-directed classes ● Online classes

Individualized pacing
42 — 57

Performance feedback
38 — 60*

Instructional support
43 — 52

Connection of content to student needs
34 — 66*

Average score for each instructional feature (0 to 100)
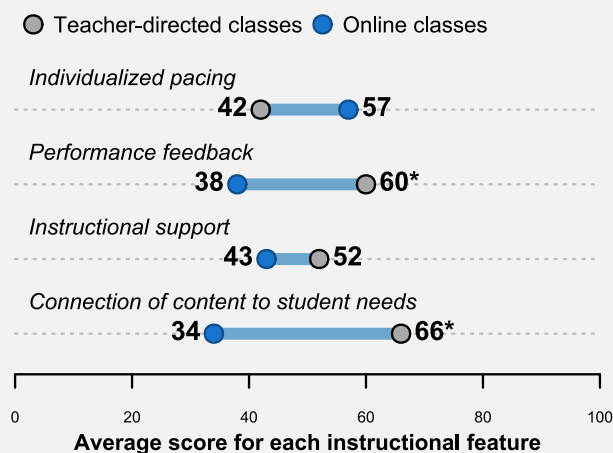
Note. Based on 34 online classes and 34 teacher-directed classes. The averages displayed for the online classes are the calculated means. The averages displayed for the teacher-directed classes depict the estimated average difference between online and teacher-directed classes.
* Average difference between the online and teacher-directed classes is statistically significant ($p < .05$).

Teachers used different grading criteria in the online and teacher-directed classes

We also asked teachers how they calculated students' final grades to see if grading criteria differed in the two types of classes. Teachers of the online classes placed more emphasis on tests and quizzes than did teachers of the teacher-directed classes (67% compared with 40%, respectively, of the final grade). The increased emphasis on tests and quizzes was paired with a decreased

emphasis on class assignments (18% vs. 38%, respectively). The emphasis teachers placed on behavior-related criteria was similar in the online and teacher-directed classes.

According to district policy, teachers in both the online and teacher directed classes could calculate students' final grades according to the criteria they determined was best. However, teachers' responses to an open-ended survey question suggest that rather than establishing their own criteria for final grades, many teachers of the online classes relied on the final grade generated by the online program. Test and quiz scores accounted for 70% of the online program's final grade, which may account for the greater emphasis on tests and quizzes in the online classes.
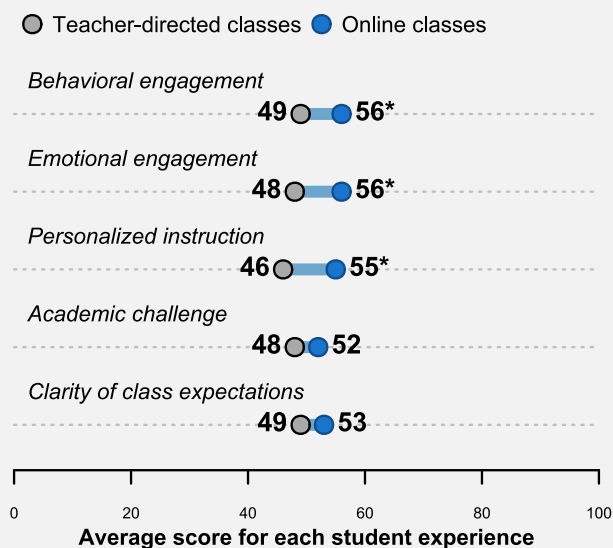
Students reported more positive instructional experiences in the online classes than in teacher-directed classes

We expected differences in the instructional features of online and teacher-directed classes to translate into differences in students' experiences in those classes. To examine students' experiences in their credit recovery class, we asked them a series of survey questions toward the end of the term. These questions addressed their perceptions of (1) behavioral engagement, (2) emotional engagement, (3) personalized instruction, (4) academic challenge, and (5) the clarity of class expectations.

Based on the student responses, we assigned students a score between 0 and 100 for each experience, with an average score of 50 across all students in the study. A higher score meant that the student thought the experience was more pronounced than did other students.

Figure 4. Relative Level of Student Experiences in the Online and Teacher-Directed English 9 Classes

○ Teacher-directed classes ● Online classes

Behavioral engagement
49 ○—● 56*

Emotional engagement
48 ○—● 56*

Personalized instruction
46 ○—● 55*

Academic challenge
48 ○● 52

Clarity of class expectations
49 ○● 53

| 0 | 20 | 40 | 60 | 80 | 100 |

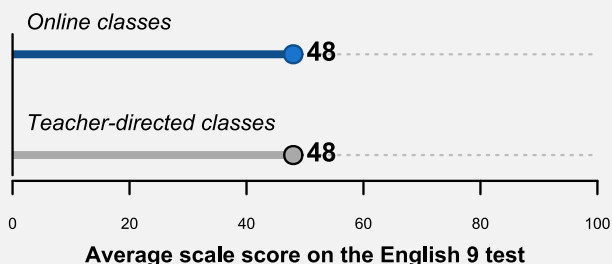**Average score for each student experience**

Note. Based on 564 students assigned to online classes and 560 students assigned to teacher-directed classes. The averages displayed for the online classes are the calculated means. The averages displayed for the teacher-directed classes depict the estimated average difference between online and teacher-directed classes.
* Average difference between the online and teacher-directed classes is statistically significant ($p < .05$).

On average, students reported more positive experiences in the online classes than in the teacher-directed classes (see Figure 4). For example, student behavioral engagement was 7 points higher in the average online class than in the average teacher-directed class (equivalent to about a 0.18 standard deviation difference). Students' impression of personalized instruction was also higher, on average, in the online classes by 9 points (equivalent to about a 0.25 standard deviation differences).

Students in the online and teacher-directed classes had similar performance on an English test

Figure 5. Average Test Score for Students in the Online and Teacher-Directed English 9 Classes

Online classes

48

Teacher-directed classes

48

| 0 | 20 | 40 | 60 | 80 | 100 |

Average scale score on the English 9 test

Note. Based on 564 students assigned to online classes and 560 students assigned to teacher-directed classes. The averages displayed for the online classes are the calculated means. The averages displayed for the teacher-directed classes depict the estimated average difference between online and teacher-directed classes.

To measure students' content knowledge at the end of the English 9 credit recovery class, we administered a study-developed test that covered English 9 content, with a focus on reading comprehension.

Based on the student test answers, we assigned students a scale score between 0 and 100, with an average score of 50 across all students in the study. A higher score indicated that the student performed better on the test than did students with lower scores.
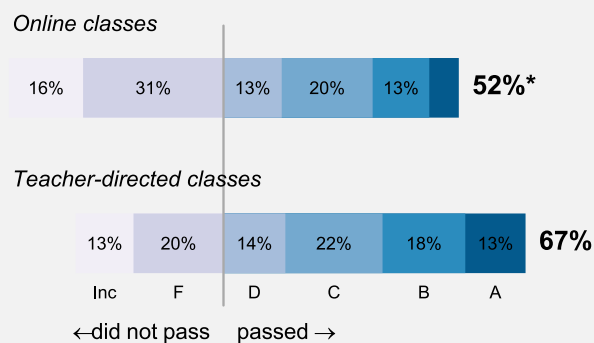
Students assigned to the online classes and the teacher-directed classes had the same test score (48), on average (see Figure 5). In both types of classes, students, on average, answered only about half the test questions correctly.

Students in the online classes had lower credit recovery rates than students in the teacher-directed classes

About half the students in the online classes recovered the English 9 course credit by receiving a grade of D or higher, which was a significantly lower rate than in the teacher-directed classes (see Figure 6). One possible reason for the lower credit recovery rate in the online classes was teachers' reliance on final grades generated by the online program, which placed greater emphasis on students' scores on tests and quizzes.

Figure 6. Percentage of Students in the Online and Teacher-Directed English 9 Classes, by Final Course Grade

Online classes

| 16% | 31% | 13% | 20% | 13% | **52%*** |

Teacher-directed classes

| 13% | 20% | 14% | 22% | 18% | 13% | **67%** |

| Inc | F | D | C | B | A |

←did not pass   passed →

Note. Based on 564 students assigned to online classes and 560 students assigned to teacher-directed classes. Students who did not receive a final course grade (e.g., dropped the course) are counted as not recovering credit and are represented in the graph as an incomplete (Inc).
* Average difference between the online and teacher-directed classes is statistically significant ($p < .05$).

Implications

The English 9 findings raise important issues about online credit recovery that were not apparent in prior research, which primarily focused on math courses.

Specifically, the teachers reported that the online classes were not as conducive to a personalized instructional environment as the teacher-directed classes. To better understand why, we conducted two follow-up focus group sessions with several teachers of the online classes. Teachers' responses during the focus group sessions suggested two potentially important explanations for this. First, teachers had a harder time providing feedback in the online class because they were not as familiar with the online program's lessons or what each student was working on at a given time. Second, teachers had an easier time adapting curricular materials and content to match student needs in the teacher-directed classes. These two issues may not be as prevalent in math classes, where there is typically more uniformity in the nature and ordering of the content.

However, the teacher-reported shortcomings of the instructional environment in the online classes did not translate into worse student perceptions of their experiences or worse performance on the reading comprehension test.

Even so, students were less likely to pass the online class. The lower credit recovery rate in the online classes compared with the teacher-directed classes raises questions about the variability in grading practices in the two types of classes. One possible reason for the lower credit recovery rate in the online classes was that teachers placed greater emphasis on objective criteria (e.g., test performance) than subjective criteria (e.g., quality of a writing assignment) when calculating final grades for the online classes.

Next steps

In this brief, we presented initial results for a comparison of online and teacher-directed English 9 summer credit recovery classes. In future briefs, we will dig deeper to provide a richer understanding of the way online credit recovery affects student educational outcomes. For example, we will address the following questions in future briefs:

- Are there certain types of students for whom online credit recovery may be particularly beneficial?
- Are there certain instructional conditions that help facilitate the effectiveness of online credit recovery?
- What is the impact of being assigned to online credit recovery on students' longer-term high school performance, including on-time graduation?

By addressing questions like these, we hope to add important details to the complicated credit recovery landscape.

Notes

[2] English 9 consists of two semester-long courses: English 9A and English 9B. Both courses were included in the study. If students took both English 9A and 9B for credit recovery, we randomly selected one of the English classes for the analysis, to make sure that we had one record per student in our analysis. Students classified with an English language development (ELD) level of 1, 2, or 3 (of 5) were excluded from the study. Per district policy, students with an ELD level below 4 should not be enrolled in online courses. Students with an ELD level of 4 or 5 were allowed to participate in the study.

[3] Although this brief focuses on English 9 credit recovery classes during the 2018 and 2019 summer terms, the study included English 9 classes during the 2018–19 school year and Algebra 1 classes during the 2018–19 school year and 2019 summer. Measures reported on the 0 to 100 scale are relative to all classes (or students) in the study and not just those classes (or students) in the English 9 summer terms.

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