Tutor.com

Effectiveness Study (2022–23)

Study Type: ESSA Evidence Level II

Prepared for:
Tutor.com

Prepared by LearnPlatform by Instructure:
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EXECUTIVE SUMMARY

Tutor.com contracted with LearnPlatform by Instructure, a third-party edtech research company, to examine the impact of Tutor.com on K–12 student outcomes. LearnPlatform by Instructure designed the study to satisfy Level II requirements (Moderate Evidence) of the Every Student Succeeds Act (ESSA).

Study Sample, Measures, and Methods

This quasi–experimental study occurred during the 2022–23 school year and included a matched analysis sample of 746 students (373 treatment, 373 comparison) from one grade 9-12 California district. The district is predominantly Hispanic (59%) and Asian (35%). Approximately 85% of households have Broadband internet and 23% have income below the poverty level. Study participant demographics mirrored district demographic information.

Researchers used administrative and state summative assessment data to examine the impact of Tutor.com on student outcomes. Researchers conducted descriptive analyses to examine participant characteristics and understand program implementation. For student outcomes, researchers conducted regressions. For each impact analysis, researchers created matched samples and conducted baseline equivalence. All analyses met What Works Clearinghouse (WWC) baseline equivalence standards (Hedges $g < .04$). Researchers also included student–level covariates to control for potential selection bias.

Program Implementation and Student Findings

Student usage. In the 2022–23 school year, participating students each used Tutor.com for an average of 13.2 sessions. The average session duration was 22.8 minutes, with a range of 1 to 77.1 minutes.

Student outcomes. Researchers examined the influence of different intensities of Tutor.com use on student outcomes. There were two positive, statistically significant findings. Specifically, students who completed over two sessions or over 300 minutes had fewer absences compared to students with lower Tutor.com use. There were no influences of different intensities of Tutor.com use on spring semester GPA or grades.

Next, researchers examined the impact of Tutor.com on student outcomes by comparing Tutor.com users to demographically similar non-users. There were two positive, statistically significant impacts of Tutor.com on student spring semester GPA and grades. Specifically, Tutor.com students had higher spring semester GPA and fewer Ds and Fs compared to demographically similar non-users. Additionally, Tutor.com students had fewer absences and higher state summative assessment scores compared to demographically similar non-users, but these differences were not statistically significant.
Conclusion

Given positive outcome findings, this study meets ESSA evidence requirements for Level II (Moderate Evidence). Specifically, this quasi–experimental study was properly designed and implemented, documented baseline equivalence, included statistical controls, had more than 350 students across multiple schools, and had multiple positive statistically significant findings.

**ESSA Level II Study Key Takeaways**

- **Students used Tutor.com across a range of subjects.**
  - Students used Tutor.com for an average of 13.1 sessions lasting on average 22.8 minutes.
  - Students most frequently participated in math, science, and English language arts tutoring sessions.
  - The system flagged a subset of students for early intervention alerts based on unusually long sessions (i.e., 75% longer than average; n = 228) and/or frequently requested subjects (i.e., 7+ times in one week; n = 98). Tutors also flagged a subset of students for a lack of content mastery (n = 42) or prerequisite knowledge (n = 94) during the session.

- **Variations in Tutor.com usage predicted attendance.**
  - Tutor.com users who completed more sessions and minutes had fewer absences.
  - Variations in Tutor.com usage did not predict spring semester GPA values or grades.

- **Tutor.com had a positive impact on GPA and grades.**
  - Students who used Tutor.com had a higher spring semester GPA than non-users.
  - Students who used Tutor.com had fewer Ds and Fs in the spring semester compared to non-users.

- **Tutor.com students had some similar outcomes as non-users.**
  - Students who used Tutor.com had slightly better attendance and state summative assessment scores than non-users, but these differences were not statistically significant.
Table of Contents

Introduction 3
Methods 4
Program Implementation 6
Student Findings 7
Conclusions 14
References 15
Appendix A. Tutor.com Logic Model 16
Appendix B. Additional Information on Study Design and Methods 17
Introduction

Tutor.com recognizes that students often need specific, targeted assistance to understand academic content. Learners benefit from Tutor.com’s on-demand, individualized tutoring to help clarify complex concepts, catch up after missing school, or complete homework and in-class assignments. Tutor.com promotes educational equity, opportunity, and achievement for all learners by providing live tutoring and assignment review by highly qualified, rigorously vetted tutors in a virtual environment. Tutor.com is learner-focused, geared toward creating opportunities for students to engage in on-demand, scheduled, and asynchronous tutoring sessions to help them progress beyond roadblocks and close gaps in their understanding (see logic model in Appendix A; Hunt, Long, & Cavanaugh, 2022).

As part of their ongoing efforts to demonstrate effectiveness, Tutor.com contracted with LearnPlatform by Instructure, a third-party edtech research company, to examine the impact of Tutor.com on student outcomes. LearnPlatform by Instructure designed the study to satisfy Level II requirements (Moderate Evidence) of the Every Student Succeeds Act (ESSA).

The present study had the following research questions:

Implementation Research Questions

1. To what extent did students engage with Tutor.com?
   a. How many tutoring sessions did students complete?
   b. What was the range and average number of minutes per tutoring session?
   c. How many sessions were flagged for early intervention alerts?

Effectiveness Research Questions

2. What was the influence of different intensities of Tutor.com usage on:
   a. the number of Ds and Fs students received?
   b. course grades?
   c. absenteeism?
3. What was the impact of Tutor.com on:
   d. the number of Ds and Fs students received?
   e. course grades?
   f. absenteeism?
   g. state summative assessments?
Methods

This section of the report briefly describes the study design, setting and participants, measures, analysis methods, and baseline equivalence practices.

Study Design

This study used a quasi-experimental design\(^1\) with propensity score matching to align with ESSA Level II evidence standards. The treatment group included students who used Tutor.com during the 2022–23 school year. The comparison group included students who did not access Tutor.com but who were demographically similar, with comparable fall achievement.

Setting and Participants

The study compared Grade 9–12 students who used Tutor.com with matched students who did not (373 treatment, 373 comparison). Students were from one grade 9-12 district in California. The district is predominantly Hispanic (59%) and Asian (35%). Approximately 85% of households have Broadband internet and 23% have income below the poverty level (NCES, 2023). Study participant demographics mirrored district demographics. Additional demographic information can be found in Appendix B.

Measures

This study includes the following measures to provide insights into Tutor.com implementation and evidence for the impact of Tutor.com on student outcomes.

Tutor.com Usage Metrics. Researchers utilized 2022–23 student-level usage data (i.e., system early intervention alerts for exceptionally long sessions [i.e., 75% longer than average] or exceptionally frequent sessions [i.e., 7+ times in one week], tutor early intervention alerts for a lack of content mastery or a lack of prerequisite knowledge, total sessions, total minutes). Usage data informed the extent to which students used Tutor.com during the school year and whether students’ use of Tutor.com influenced student outcomes.

Student Outcomes. Researchers used several administrative data points for the present study, including: a count of spring semester Ds and Fs, spring semester GPA values, and total 2022–23 absences. Researchers also used 11th grade state summative assessment ELA and math scale scores from the California Assessment of Student Performance and Progress (CAASPP).

\(^1\) A quasi-experimental design compares the outcomes of Tutor.com users to non-users.
Data Analysis

Researchers conducted descriptive statistics to describe participant characteristics and support implementation analyses. Researchers then conducted regressions to examine Tutor.com outcomes and impacts. Analyses included student–level covariates and nearest neighbor propensity score matching to account for potential selection bias. In addition, researchers calculated standardized effect sizes (i.e., Hedges $g^2$) to determine the magnitude of difference in Tutor.com student outcomes compared to similar non-users.

Baseline Equivalence

To ensure the validity to the study’s findings and adhere to ESSA Level II standards, researchers conducted baseline equivalence tests on matched treatment and comparison student samples. These findings are discussed in the Student Findings section and referenced in Appendix B.

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2 Hedges g represents the standardized mean difference in outcomes between two groups of students.
Program Implementation

This section presents descriptive findings on Tutor.com implementation. Researchers analyzed program usage metrics to determine the extent to which grade 9–12 students used Tutor.com during the 2022–23 school year.

To what extent did students engage with Tutor.com?

Number of tutoring sessions completed. Among students using Tutor.com, the average number of sessions completed across all subjects was 13.2, with sessions lasting an average of 22.8 minutes, and some students having session durations as high as 77.1 minutes (see Table 1). Math tutoring sessions were most common, with 275 students averaging 11.9 sessions over the course of the year, with each session lasting 22.8 minutes. Foreign language tutoring were least common, with just six students completing tutoring sessions in this subject.

Table 1. Tutor.com student tutoring sessions by subject

<table>
<thead>
<tr>
<th>Subject</th>
<th>Average sessions</th>
<th>Range of sessions</th>
<th>Average duration (minutes)</th>
<th>Range (minutes)</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>11.9</td>
<td>1 – 389</td>
<td>22.8</td>
<td>1 – 77.1</td>
<td>275</td>
</tr>
<tr>
<td>Science</td>
<td>7.5</td>
<td>1 – 116</td>
<td>21.9</td>
<td>1 – 66.3</td>
<td>111</td>
</tr>
<tr>
<td>English Language Arts</td>
<td>8.4</td>
<td>1 – 176</td>
<td>28.2</td>
<td>2.1 – 67.5</td>
<td>91</td>
</tr>
<tr>
<td>Social Studies</td>
<td>3.3</td>
<td>1 – 20</td>
<td>13.7</td>
<td>3 – 29.6</td>
<td>12</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>2.2</td>
<td>1 – 6</td>
<td>29.6</td>
<td>3.2 – 81.9</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>13.2</td>
<td>1 – 540</td>
<td>22.8</td>
<td>1 – 77.1</td>
<td>373</td>
</tr>
</tbody>
</table>

Number of tutoring sessions flagged for early intervention. Tutor.com uses an early intervention alert system to identify when (a) students frequently request tutoring on the same subject and (b) tutoring sessions run especially long. There were 98 students with tutoring sessions flagged for frequently requested subjects. Among these students, an average of 22 sessions were flagged as frequently requested subjects. There were 228 students with tutoring sessions flagged for being unusually long. Students in this group had an average of 8.6 sessions flagged as unusually long in duration.

Tutors can also use early intervention alerts to identify when students demonstrate a lack of (a) content mastery and (b) prerequisite knowledge in a tutoring session. Tutors flagged 42 students for content mastery, with each student flagged across an average of 2.6 sessions. Additionally, tutors flagged 94 students for a lack of prerequisite knowledge, with each student flagged across an average of 4.3 sessions.
Student Findings

To answer effectiveness research questions, researchers conducted regressions for Tutor.com students only and regressions using matched samples of users to non-users. The following section details (a) the influence of different levels of Tutor.com usage on student outcomes and (b) the impact of Tutor.com on student outcomes. Researchers report statistically significant findings at the $p = .05$ level. Statistically significant findings are marked green (positive effect) or red (negative effect) in subsequent graphs. Findings that are not statistically significant are marked gray.

What was the influence of different intensities of Tutor.com usage on student outcomes?

Number of Ds and Fs. Researchers conducted regressions for Tutor.com students, exploring the influence of different intensities of Tutor.com usage on the number of spring semester Ds and Fs. Models included fall semester GPA, Ethnicity (i.e., Hispanic/Not Hispanic), and gender as covariates. Overall, students who completed more sessions and spent more minutes in Tutor.com had fewer Ds and Fs in the spring, but these differences were not statistically significant, see Figures 1 and 2.

Tutor.com users who completed more than two sessions had fewer spring semester Ds and Fs but these differences were not statistically significant.

Figure 1. Influence of the number of sessions on Tutor.com users’ spring semester Ds and Fs ($n = 373$). Mean differences between 1-2 sessions and higher usage groups were not statistically significant ($g = -0.13, p > .05; g = -0.20, p > .05$).
Course grades. Researchers conducted regressions exploring the influence of different intensities of Tutor.com usage on spring semester GPA. Models included fall semester GPA, Ethnicity (i.e., Hispanic/Non-Hispanic), and gender as covariates. Overall, students who completed more sessions and spent more minutes in Tutor.com had a higher spring semester GPA, but these differences were not statistically significant, see Figures 3 and 4.

![Figure 2: Influence of the number of minutes on Tutor.com users' spring semester Ds and Fs (n = 373). Mean differences between 1-60 minutes and higher usage groups were not statistically significant (g = -0.08, p > .05; g = -0.18, p > .05).](image)

**Tutor.com users who completed more than 60 minutes had fewer spring semester Ds and Fs but these differences were not statistically significant.**

![Figure 3: Influence of the number of sessions on Tutor.com users' spring 2023 GPA (n = 373). Mean differences between 1-2 sessions and higher usage groups were not statistically significant (g = 0.08, p > .05; g = 0.08, p > .05).](image)

**Tutor.com users who completed more than two sessions had higher spring semester GPAs but these differences were not statistically significant.**
Tutor.com users who completed more than 60 minutes had higher spring semester GPAs but these differences were not statistically significant.

Figure 4. Influence of the number of minutes on Tutor.com users' spring 2023 GPA (n = 373). Mean differences between 1-60 minutes and higher usage groups were not statistically significant (g = 0.04, p > .05; g = 0.10, p > .05).

Attendance. Researchers conducted regressions for Tutor.com students, exploring the influence of different intensities of Tutor.com usage on student absenteeism. Models included fall semester GPA, Ethnicity (i.e., Hispanic/Not Hispanic), and gender as covariates. Overall, students who completed more sessions and spent more minutes in Tutor.com had fewer absences over the 2022-23 school year and these differences were statistically significant.

Tutor.com users who completed more than two sessions had fewer absences during the 2022-23 school year.

Figure 5. Influence of the number of sessions on Tutor.com users' total 2022-23 absences (n = 373). Mean differences between 1-2 sessions and higher usage groups were statistically significant (g = -0.21, p < .05; g = -0.29, p = .04).
What was the impact of Tutor.com on student outcomes?

Number of Ds and Fs. Researchers created a matched sample of Tutor.com users and non-users based on students’ total D and F scores in the fall semester, grade level, gender, and ethnicity. The matched sample demonstrated baseline equivalence (Hedges $g = 0.00$) in fall semester D and F scores. Next, researchers conducted a regression model using the matched sample, examining the impact of participating in Tutor.com on student Ds and Fs in the spring semester, controlling for gender, Ethnicity (i.e., Hispanic/Non-Hispanic), and fall semester GPA. Tutor.com users had fewer Ds and Fs compared to non-users, and this difference was statistically significant ($g = -0.14; p < .01$); see Figure 2.

![Figure 7](image-url) Adjusted mean number of Ds and Fs for Tutor.com users and non-users. Mean difference was statistically significant ($g = -0.14, p < .01; n = 746$).
Course grades. Researchers created a matched sample of Tutor.com users and non-users based on students’ fall GPA, grade level, gender, and ethnicity. The matched sample demonstrated baseline equivalence ($g = 0.04$) in fall GPA. Next, researchers conducted a regression using the matched sample, examining the impact of participating in Tutor.com on spring semester GPA, controlling for gender, Ethnicity (i.e., Hispanic/Non-Hispanic), and fall semester GPA. Tutor.com users had a higher spring semester GPA compared to non-users and this difference was statistically significant ($g = 0.14; p < .001$).

Tutor.com users had a higher semester GPA compared to non-users.

![Adjusted mean spring GPA for Tutor.com users and non-users. Mean difference was statistically significant ($g = 0.15, p < .001; n = 746$).](image)

Attendance. Researchers used the previously referenced matched sample of Tutor.com students and non-users based on students’ fall semester GPA, grade level, gender, and ethnicity and conducted a regression using the matched sample, examining the impact of Tutor.com on student absenteeism, controlling for gender, Ethnicity (i.e., Hispanic/Non-Hispanic), and fall semester GPA. Tutor.com students had fewer absences compared to non-users, but this difference was not statistically significant ($g = -0.06; p > .05$).

Tutor.com users had fewer absences compared to non-users during the 2022-23 school year, but this difference was not statistically significant.

![Adjusted number of absences in 2022–23 for Tutor.com users and non-users. Mean difference was not statistically significant ($g = -0.06, p > .05; n = 746$).](image)
State summative assessments. Researchers used the previously referenced matched sample of Tutor.com students and non-users based on students’ fall semester GPA, grade level, gender, and ethnicity. Next, researchers conducted a regression using the matched sample, examining the impact of participating in Tutor.com on 11th grade state math summative assessment scale scores, controlling for Ethnicity (i.e., Hispanic/Non-Hispanic) and fall semester GPA. Tutor.com 11th grade students had higher math state summative assessment scores compared to non-users in spring 2023 but this difference was not statistically significant ($g = 0.11, p > .05$).

Tutor.com 11th grade users had higher math CAASPP state summative assessment scores than non-users, but this difference was not statistically significant.

![Figure 10. Adjusted math state summative assessment CAASPP end-of-year 2023 scale scores for Tutor.com users and non-users. Mean difference was not statistically significant ($g = 0.11, p > .05; n = 291$).](image)

Using the same matched sample, researchers conducted a second regression model, examining the impact of Tutor.com on 11th grade state ELA summative assessment scale scores, controlling for Ethnicity (i.e., Hispanic/Non-Hispanic) and fall GPA. Tutor.com 11th grade students had higher state ELA summative assessment scores compared to non-users in spring 2023, but this difference was not statistically significant ($g = 0.11, p > .05$).
Figure 11. Adjusted ELA state summative assessment CAASPP end-of-year 2023 scale scores for Tutor.com users and non-users. Mean difference was not statistically significant ($g = 0.11, p > .05; n = 291$).
Conclusions

Given multiple positive outcome findings, this study provides results to satisfy ESSA evidence requirements for Level II (Moderate Evidence). Specifically, this quasi–experimental study met the following criteria for Level II:

- Proper design and implementation
- Baseline equivalence for treatment and comparison groups
- Statistical controls through covariates
- At least 350 students in the analysis sample
- Representative, multi–site study
- At least one statistically significant, positive finding
References


## Appendix A. Tutor.com Logic Model

**Problem Statement:** Students often need specific, targeted assistance to understand content; for example, to clarify a complex concept, to catch up after missing school, or to complete homework and in-class assignments. Tutor.com promotes educational equity, opportunity, and achievement for all learners by providing live tutoring and assignment review through a network of qualified tutors in a virtual environment. The support provided by Tutor.com is learner-focused, creating opportunities for individualized just-in-time support that allows students to request on-demand, scheduled, and asynchronous sessions and progress beyond roadblocks or gaps in understanding.

### Inputs
- Vetted tutors with verified content expertise who provide a safe and uplifting learner experience
- Online platform for on-demand, scheduled, and asynchronous tutoring sessions including:
  - 2-way voice and text-chat options
  - 2-way whiteboard, code editor, text editor, graph paper and graphing calculator, and drawing tools
- Curriculum-supportive, flexible K-12 tutoring spanning academic subjects:
  - Early literacy & scaffolding to build foundational skills for K-5
  - Standards-aligned test prep, skill-building, and study skills tutoring for grades 6-12
  - Career & Technical Education, dual-enrollment, APs & IB subjects, and college admission support for grades 9-12
- Tutor.com To Go app
- Accessibility features and support in multiple languages
- Robust data & analytics (e.g., tutor post-session survey with standardized rubric, early intervention alerts)
- Learner privacy and safety tools

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### Participants
- **K-12 students**
- **Teachers**
- **Parents**
- **District Administrators**

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### Activities

#### Session Activities
- Students request or schedule 1-to-1 tutoring sessions through their LMS, digital platform, and/or user login
- Students participate in just-in-time tutoring sessions
- Students submit assignments for review within 12 hours
- Students engage with learning tools during tutoring sessions
- Tutors assess prior knowledge and choose an appropriate approach
- Tutors ask open-ended questions to help establish clear session objectives and expectations
- Tutors continue session until student feels confident with stated objectives

#### Post-Session Activities
- Students complete a post-session survey
- Students review and share past sessions with their teacher or parent
- Tutors complete predictive insight survey to assess prerequisite knowledge and content mastery
- Tutors tag session content and level

#### Platform Activities
- Tutors are distinguished as student "favorites"
- Teachers promote use of sessions for support in and out of the classroom
- Teachers review usage reports and early intervention alerts
- Administrators monitor usage data
- Administrators set institutional learning goals

### Outputs

#### Products of activities:
- Number of tutoring sessions students complete
- Number of assignments student submit for review
- Duration of tutoring sessions

#### Long-term
- Students experience accelerated learning and achievement
- Teachers feel less stressed due to student support provided by on-demand and scheduled tutoring
- Teachers regularly incorporate 1-to-1 school-day tutoring with their lesson plans

#### Intermediate
- Students develop greater agency and awareness in the learning process
- Students receive early intervention notifications to better support student learning

#### Short-term
- Students access just-in-time, content-specific tutoring
- Students become more confident and independent about their school work

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### Outcomes

- **Administrators**
  - Use data to make decisions about scheduling, staffing, and goal setting
  - Administrators make strategic curricular and instructional improvements that facilitate positive student outcomes
- **Students**
  - Experience greater job satisfaction and retention
  - Students become more likely to graduate
  - Students including those who have experienced learning loss, demonstrate increased understanding
  - Students are better prepared for college and future careers
- **Teachers**
  - Access targeted learning reinforcements and student data

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## Notes

- APA is a trademark registered by the CollabPress which is not affiliated with, and does not endorse, this product. This reference is not affiliated with Princeton University.
Appendix B. Additional Information on Study Design and Methods

A total of 373 Tutor.com students had complete demographic, achievement, and usage data. Researchers had a sample of 6,448 comparison students with complete demographic and achievement data. Using these this dataset of 373 Tutor.com students and 6,448 non-Tutor.com students, researchers used propensity score matching (i.e., nearest neighbor matching without replacement) to create a matched study sample of 373 Tutor.com students and 373 non-Tutor.com students with similar fall performance, gender, ethnicity, and grade level. Consequently, the matched study sample included 746 students from one California district with five schools. Additional demographic information on participating students is included in Tables B1 and B2.

Table B1. Student demographics by group for matched sample based on fall semester Ds and Fs

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Tutor.com students (n = 373)</th>
<th>Non-Tutor.com students (n = 373)</th>
<th>Total sample (n = 746)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>n</td>
<td>Percent</td>
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<tr>
<td>Gender</td>
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<tr>
<td>Male</td>
<td>39%</td>
<td>146</td>
<td>39%</td>
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<tr>
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<td>61%</td>
<td>227</td>
<td>61%</td>
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<td>Race/Ethnicity</td>
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</tr>
<tr>
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<td>54%</td>
</tr>
<tr>
<td>Asian</td>
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<td>Two or More</td>
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<td>Tutor.com students (n = 373)</td>
<td>Non-Tutor.com students (n = 373)</td>
<td>Total sample (n = 746)</td>
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<td>11th</td>
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<td></td>
<td>12th</td>
<td>20%</td>
<td>76</td>
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</table>

Table B2. Student demographics by group for matched sample based on fall semester GPA

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Tutor.com students (n = 373)</th>
<th>Non-Tutor.com students (n = 373)</th>
<th>Total sample (n = 746)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
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</tr>
<tr>
<td><strong>Male</strong></td>
<td>39%</td>
<td>146</td>
<td>41%</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>61%</td>
<td>227</td>
<td>59%</td>
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<td>Race/Ethnicity</td>
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<tr>
<td><strong>Asian</strong></td>
<td>42%</td>
<td>156</td>
<td>43%</td>
</tr>
<tr>
<td><strong>Two or More</strong></td>
<td>3%</td>
<td>13</td>
<td>3%</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td>0.3%</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Black</strong></td>
<td>0.3%</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hispanic</strong></td>
<td>54%</td>
<td>202</td>
<td>53%</td>
</tr>
<tr>
<td><strong>Non-Hispanic</strong></td>
<td>46%</td>
<td>171</td>
<td>47%</td>
</tr>
<tr>
<td>Homelessness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Yes</strong></td>
<td>9%</td>
<td>32</td>
<td>6%</td>
</tr>
<tr>
<td><strong>No</strong></td>
<td>91%</td>
<td>341</td>
<td>94%</td>
</tr>
<tr>
<td>Section 504</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Yes</strong></td>
<td>2%</td>
<td>6</td>
<td>1%</td>
</tr>
<tr>
<td><strong>No</strong></td>
<td>98%</td>
<td>367</td>
<td>99%</td>
</tr>
<tr>
<td>Migrant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Yes</strong></td>
<td>2%</td>
<td>7</td>
<td>2%</td>
</tr>
<tr>
<td><strong>No</strong></td>
<td>98%</td>
<td>366</td>
<td>98%</td>
</tr>
</tbody>
</table>
After matching across groups, researchers conducted regression analyses using the propensity score matched sample to confirm there were no statistically significant differences between student groups. The matched samples met WWC baseline equivalence standards with Hedges g effect sizes ranging from 0.00 to 0.04.

Table B2. Baseline equivalence on fall grades and GPA

<table>
<thead>
<tr>
<th>Outcome Variable</th>
<th>Adjusted mean (Tutor.com)</th>
<th>Unadjusted n (SD) (Tutor.com)</th>
<th>Adjusted mean (non-users)</th>
<th>Unadjusted n (SD) (non-users)</th>
<th>Hedges g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of D’s and F’s (fall)</td>
<td>0.76</td>
<td>373 (1.27)</td>
<td>0.76</td>
<td>373 (1.27)</td>
<td>0.00</td>
</tr>
<tr>
<td>GPA (fall)</td>
<td>2.98</td>
<td>373 (0.97)</td>
<td>3.02</td>
<td>373 (0.93)</td>
<td>0.04</td>
</tr>
</tbody>
</table>