

**Supplementary Materials for
The inequity of opt-in educational resources and an intervention to increase
equitable access**

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Table S1. Balance Across Conditions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Female	FRPL	SPED	Spanish HH	Asian	Black	Hispanic	White	Other race	Passing All Courses (Fall 20)	No Fs (Fall 20)	Passing Math Courses (Fall 20)	Math No Fs (Fall 20)	Prior attendance rate (Fall 20)	Undeliverable
Student	0.034 (0.023)	-0.027 (0.017)	-0.030+ (0.016)	-0.000 (0.000)	-0.001 (0.009)	-0.002 (0.011)	0.006 (0.011)	-0.005 (0.009)	-0.003 (0.007)	0.020 (0.020)	-0.012 (0.017)	-0.007 (0.019)	-0.006 (0.014)	0.000 (0.004)	0.014 (0.011)
Parent	0.009 (0.023)	-0.009 (0.015)	-0.019 (0.016)	-0.001 (0.001)	-0.016 (0.012)	-0.014 (0.010)	0.029+ (0.017)	-0.009 (0.007)	0.001 (0.007)	-0.002 (0.019)	-0.009 (0.016)	-0.005 (0.018)	0.007 (0.013)	-0.003 (0.004)	0.007 (0.010)
Student+Parent	0.024 (0.019)	-0.002 (0.017)	-0.030+ (0.016)	0.000 (0.000)	0.002 (0.010)	-0.017 (0.011)	0.018 (0.013)	-0.001 (0.009)	-0.005 (0.007)	-0.003 (0.022)	0.005 (0.017)	-0.003 (0.019)	-0.000 (0.015)	0.001 (0.004)	-0.004 (0.011)
Constant	0.466*** (0.013)	0.766*** (0.010)	0.145*** (0.011)	0.563*** (0.000)	0.062*** (0.007)	0.106*** (0.006)	0.743*** (0.009)	0.051*** (0.005)	0.032*** (0.004)	0.578*** (0.013)	0.765*** (0.010)	0.755*** (0.011)	0.892*** (0.009)	0.962*** (0.002)	0.069*** (0.006)
Adjusted R-squared	0.007	0.163	0.012	0.999	0.143	0.380	0.491	0.093	0.059	0.089	0.112	0.111	0.179	0.111	0.001
F	1.043	0.912	1.735	0.322	1.487	1.610	1.463	0.604	0.245	0.814	0.362	0.048	0.527	0.899	1.196
P	0.375	0.437	0.162	0.810	0.220	0.189	0.227	0.613	0.865	0.488	0.781	0.986	0.665	0.443	0.313
Observations	4763	4763	4763	4763	4763	4763	4763	4763	4763	4576	4576	4411	4411	4759	4763

Standard errors in parentheses

+ p<0.1, * p<0.5, ** p<0.01, *** p<0.001

Table S2. Take-up by Grade Level

	Average Take-up
6th grade	20.21
7th grade	11.62
8th grade	22.37
9th grade	26.53
10th grade	16.20
11th grade	23.33
12th grade	11.97

Notes. Showing Control Group Only

Table S3. Take up by Student Background Characteristics

	Percent logged on at least once	Percentage point difference	p- value
Gender			
Male	0.148		
Female	0.231	0.083	0.000
Free & Reduced Lunch Status			
Not FRL	0.183		
FRL	0.188	0.004	0.868
Special Education Status			
Not SPED	0.194		
SPED	0.145	-0.049	0.131
Primary Household Language			
Not Spanish Speaking HH	0.181		
Spanish Speaking HH	0.192	0.011	0.627
Prior Academic Performance			
Not Passing All Courses (Fall 20)	0.116		
Passing All Courses (Fall 20)	0.227	0.111	0.000
By Race/Ethnicity			
Hispanic	0.191		
Asian	0.230	0.039	0.414
Black	0.176	-0.015	0.684
White	0.117	-0.075	0.152
N	1188		

Table S4. Comparison of treatment effect for other conditions on engagement and academic outcomes

	(1)	(2)	(3)	(4)	(5)	(6)
	Logged on at least once	Number of sessions	Number of messages exchanged	Passing	No Fs	GPA
Parent (vs. Student)	0.049 *** (0.015)	0.205 (0.154)	0.691 (10.098)	0.011 (0.015)	0.023 (0.015)	0.075 + (0.041)
Parent+Student (vs. Student)	0.078 *** (0.015)	0.722 *** (0.154)	33.797 *** (10.124)	0.044 ** (0.015)	0.038 ** (0.015)	0.091 * (0.041)
Parent+Student (vs. Parent)	0.029 + (0.015)	0.517 *** (0.155)	33.106 *** (10.147)	0.033 * (0.015)	0.015 (0.015)	0.016 (0.041)

Notes.

Standard errors in parentheses

+ p<0.1, * p<0.5, ** p<0.01, *** p<0.001

Table S5a. Treatment Impact heterogeneity - Interactions: Treatment x Female

	(1)	(2)
	Ever logged on	Passing All Courses (Spring 21)
Student	0.009 (0.019)	-0.003 (0.022)
Parent	0.063** (0.019)	0.032 (0.021)
Student+Parent	0.088*** (0.020)	0.046* (0.022)
Female	0.066*** (0.020)	0.051* (0.023)
Student x Female	-0.002 (0.029)	-0.001 (0.031)
Parent x Female	-0.013 (0.030)	-0.052+ (0.031)
Student+Parent x Female	-0.004 (0.031)	-0.013 (0.032)
Adjusted R-squared	0.197	0.465
Observations	4763	4542

Notes.

Standard errors in
parentheses

+ p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Table S5b. Treatment Impact heterogeneity - Interactions: Treatment x Free-Reduced Price Lunch

	(1)	(2)
	Ever logged on	Passing All Courses (Spring 21)
Student	0.004 (0.027)	0.015 (0.030)
Parent	0.072* (0.029)	0.012 (0.031)
Student+Parent	0.099** (0.032)	-0.012 (0.031)
FRPL	0.022 (0.023)	-0.072** (0.027)
Student x FRPL	0.004 (0.032)	-0.025 (0.035)
Parent x FRPL	-0.020 (0.034)	-0.007 (0.036)
Student+Parent x FRPL	-0.018 (0.037)	0.069+ (0.036)
Adjusted R-squared	0.197	0.466
Observations	4763	4542

Standard errors in parentheses

+ p<0.1, * p<0.5, ** p<0.01, *** p<0.001

Table S5c. Treatment Impact heterogeneity - Interactions: Treatment x Passing Fall Courses (Fall 2020)

	(1)	(2)
	Ever logged on	Passing All Courses (Spring 21)
Student	0.030 (0.022)	-0.031 (0.024)
Parent	0.032 (0.021)	-0.005 (0.024)
Student+Parent	0.143*** (0.024)	0.042 (0.026)
Passing Fall Courses	0.091*** (0.020)	0.589*** (0.024)
Student x Passing Fall Courses	-0.033 (0.030)	0.047 (0.032)
Parent x Passing Fall Courses	0.049 (0.030)	0.021 (0.032)
Student+Parent x Passing Fall Courses	-0.098** (0.032)	-0.003 (0.032)
Adjusted R-squared	0.174	0.465
Observations	4576	4542

Standard errors in parentheses

+ p<0.1, * p<0.5, ** p<0.01, *** p<0.001

Table S5d. Treatment Impact heterogeneity - Interactions:
Treatment x Spanish Speaking HH

	(1)	(2)
	Ever logged on	Passing All Courses (Spring 21)
Student	0.007 (0.021)	0.010 (0.023)
Parent	0.030 (0.021)	0.011 (0.023)
Student+Parent	0.071** (0.023)	0.039+ (0.023)
Spanish-Speaking HH	0.262*** (0.074)	0.027 (0.052)
Student x Spanish Speaking HH	0.000 (0.029)	-0.025 (0.031)
Parent x Spanish Speaking HH	0.048 (0.030)	-0.007 (0.031)
Student+Parent x Spanish Speaking HH	0.026 (0.031)	0.003 (0.031)
Adjusted R-squared	0.197	0.465
Observations	4763	4542

Notes.

Standard errors in parentheses

+ $p < 0.1$, * $p < 0.5$, ** $p < 0.01$, *** $p < 0.001$

Table S5e. Treatment Impact heterogeneity - Interactions:
Treatment x Special Education (SPED)

	(1)	(2)
	Ever logged on	Passing All Courses (Spring 21)
Student	0.002 (0.015)	-0.008 (0.016)
Parent	0.061*** (0.016)	0.016 (0.016)
Student+Parent	0.078*** (0.016)	0.036* (0.017)
SPED	-0.010 (0.027)	0.009 (0.035)
Student x SPED	0.046 (0.046)	0.039 (0.049)
Parent x SPED	-0.034 (0.041)	-0.067 (0.050)
Student+Parent x SPED	0.060 (0.049)	0.039 (0.050)
Adjusted R-squared	0.198	0.466
Observations	4763	4542

Notes.

Standard errors in parentheses

+ p<0.1, * p<0.5, ** p<0.01, *** p<0.001

Supplementary Figures.

Figure S1. Proportion of students taking up tutoring by school

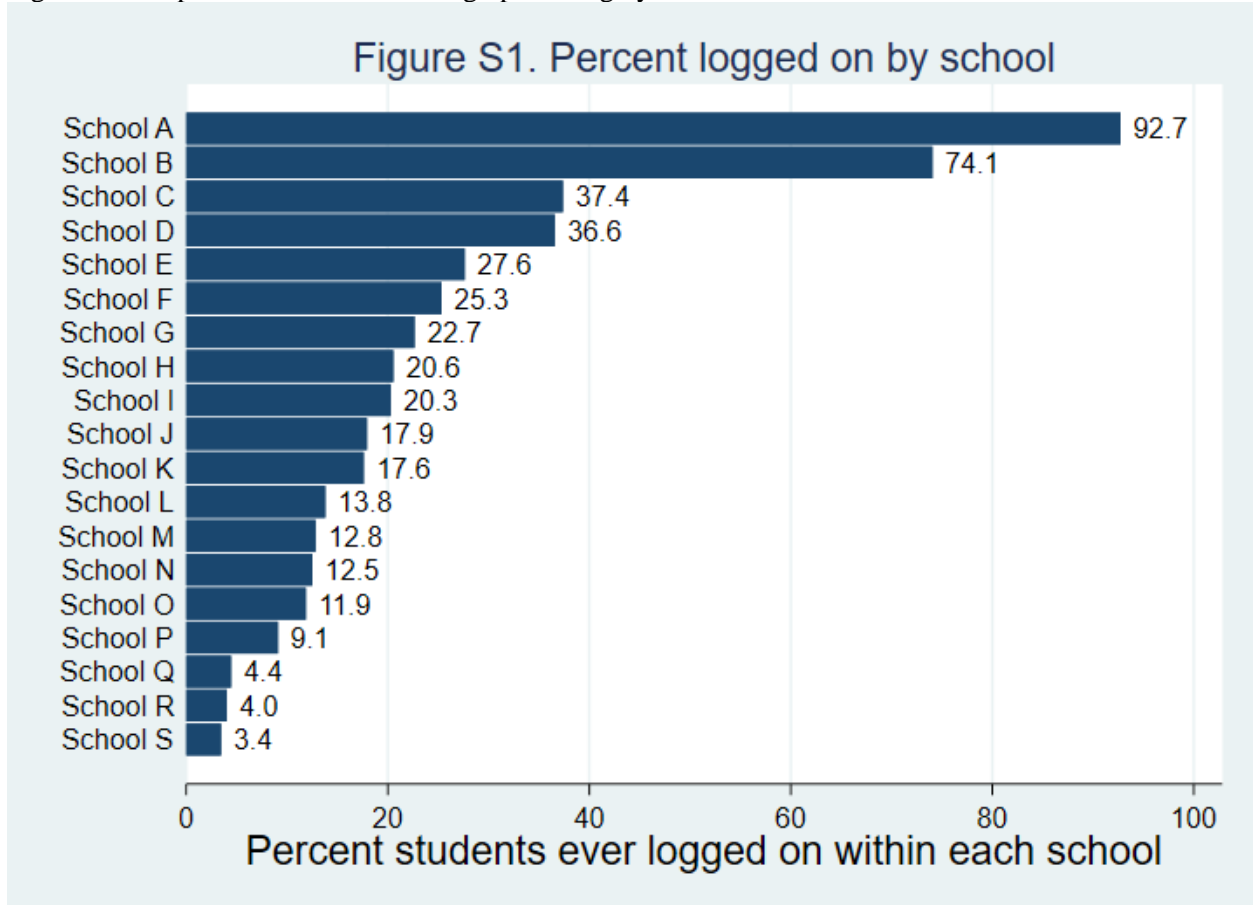


Figure S2. Usage of Tutoring by Condition Over Time: *Student Only* vs. Control

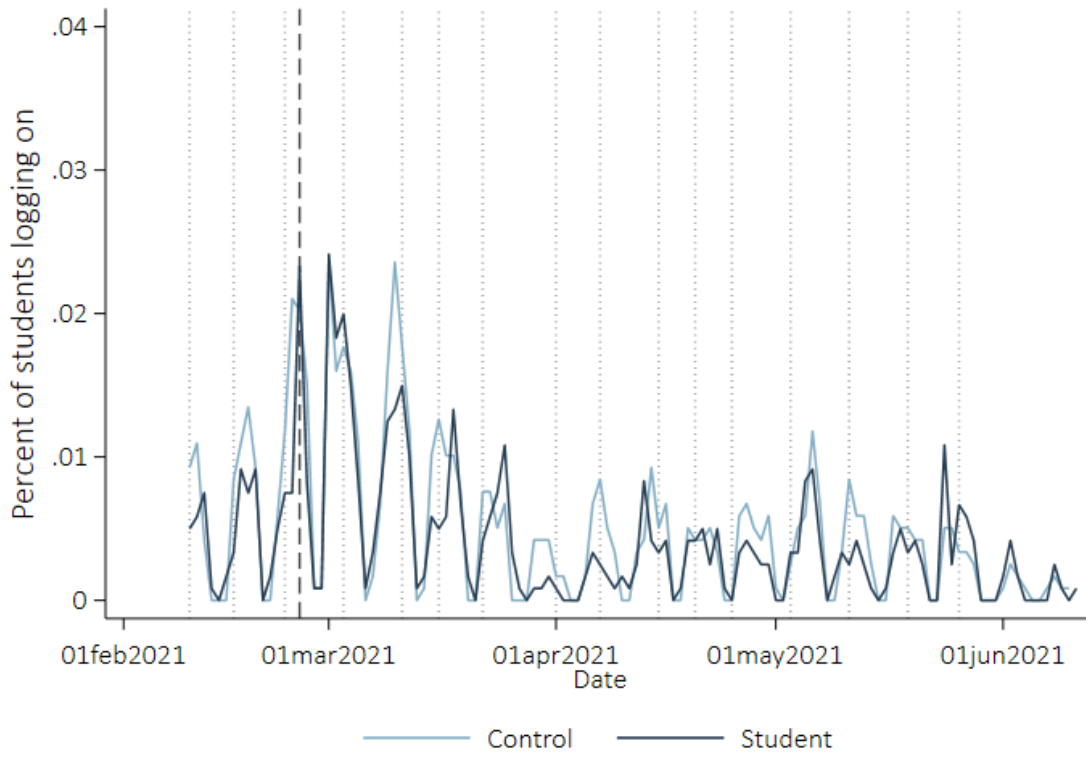


Figure S3. Usage of Tutoring by Condition Over Time: *Parent Only* vs. Control

