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Fixed Effects Regression

Fixed Effects Regression
Import data

Fixed Effects Variable Preparation

Fixed Effects Variable Preparation

Create dummy variables for fixed effect regression

Fixed Effects Prepared Data Summary

Fixed Effects Prepared Data Summary
Outcome, numeric predictors, and fixed effect groups

Frequencies

[FixedEffectsData] D:\DATA ANALYSIS\H Regression Tests and Models\Fixed Effect
s Regression\SPSS_Output\sav\Fixed-Effects-Regression-data.sav

Statistics

		school	sex	address	higher	internet	School fixed effect dummy: 1 = MS, 0 = GP
N	Valid	649	649	649	649	649	649
	Missing	0	0	0	0	0	0

Statistics

		Sex fixed effect dummy: 1 = male, 0 = female	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes
N	Valid	649	649	649	649
	Missing	0	0	0	0

Frequency Table

school

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	GP	423	65.2	65.2	65.2
	MS	226	34.8	34.8	100.0
	Total	649	100.0	100.0	

sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	F	383	59.0	59.0	59.0
	M	266	41.0	41.0	100.0
	Total	649	100.0	100.0	

Fixed Effects Prepared Data Summary
Outcome, numeric predictors, and fixed effect groups

address

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	R	197	30.4	30.4	30.4
	U	452	69.6	69.6	100.0
	Total	649	100.0	100.0	

higher

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	69	10.6	10.6	10.6
	yes	580	89.4	89.4	100.0
	Total	649	100.0	100.0	

internet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	151	23.3	23.3	23.3
	yes	498	76.7	76.7	100.0
	Total	649	100.0	100.0	

School fixed effect dummy: 1 = MS, 0 = GP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No / reference	423	65.2	65.2	65.2
	Yes / target	226	34.8	34.8	100.0
	Total	649	100.0	100.0	

Sex fixed effect dummy: 1 = male, 0 = female

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No / reference	383	59.0	59.0	59.0
	Yes / target	266	41.0	41.0	100.0
	Total	649	100.0	100.0	

Fixed Effects Prepared Data Summary
Outcome, numeric predictors, and fixed effect groups

Address fixed effect dummy: 1 = urban, 0 = rural

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No / reference	197	30.4	30.4	30.4
	Yes / target	452	69.6	69.6	100.0
	Total	649	100.0	100.0	

Higher education intention fixed effect dummy: yes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No / reference	69	10.6	10.6	10.6
	Yes / target	580	89.4	89.4	100.0
	Total	649	100.0	100.0	

Internet access fixed effect dummy: yes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No / reference	151	23.3	23.3	23.3
	Yes / target	498	76.7	76.7	100.0
	Total	649	100.0	100.0	

Descriptives

Fixed Effects Prepared Data Summary
Outcome, numeric predictors, and fixed effect groups

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Outcome variable: final grade	649	0	19	11.91	3.231
First period grade	649	0	19	11.40	2.745
Second period grade	649	0	19	11.57	2.914
Weekly study time group	649	1	4	1.93	.830
Number of past class failures	649	0	3	.22	.593
School absences	649	0	32	3.66	4.641
Student age	649	15	22	16.74	1.218
Mother education	649	0	4	2.51	1.135
Father education	649	0	4	2.31	1.100
Home to school travel time	649	1	4	1.57	.749
Current health status	649	1	5	3.54	1.446
Valid N (listwise)	649				

Outcome Distribution by Fixed Effects

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

Explore

school

Case Processing Summary

	school	Valid		Cases Missing		Total	
		N	Percent	N	Percent	N	Percent
Outcome variable: final grade	GP	423	100.0%	0	0.0%	423	100.0%
	MS	226	100.0%	0	0.0%	226	100.0%

Descriptives

school			Statistic	Std. Error
Outcome variable: final grade	GP	Mean	12.58	.128
		95% Confidence Interval for Mean	Lower Bound	12.33
			Upper Bound	12.83
		5% Trimmed Mean	12.62	
		Median	13.00	
		Variance	6.894	
		Std. Deviation	2.626	
		Minimum	0	
		Maximum	19	
		Range	19	
		Interquartile Range	3	
		Skewness	-.336	.119
		Kurtosis	1.388	.237
	MS	Mean	10.65	.255
		95% Confidence Interval for Mean	Lower Bound	10.15
			Upper Bound	11.15
		5% Trimmed Mean	10.85	
		Median	11.00	
		Variance	14.699	
		Std. Deviation	3.834	
		Minimum	0	
		Maximum	19	

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

Descriptives

school		Statistic	Std. Error
	Range	19	
	Interquartile Range	4	
	Skewness	-.828	.162
	Kurtosis	1.778	.322

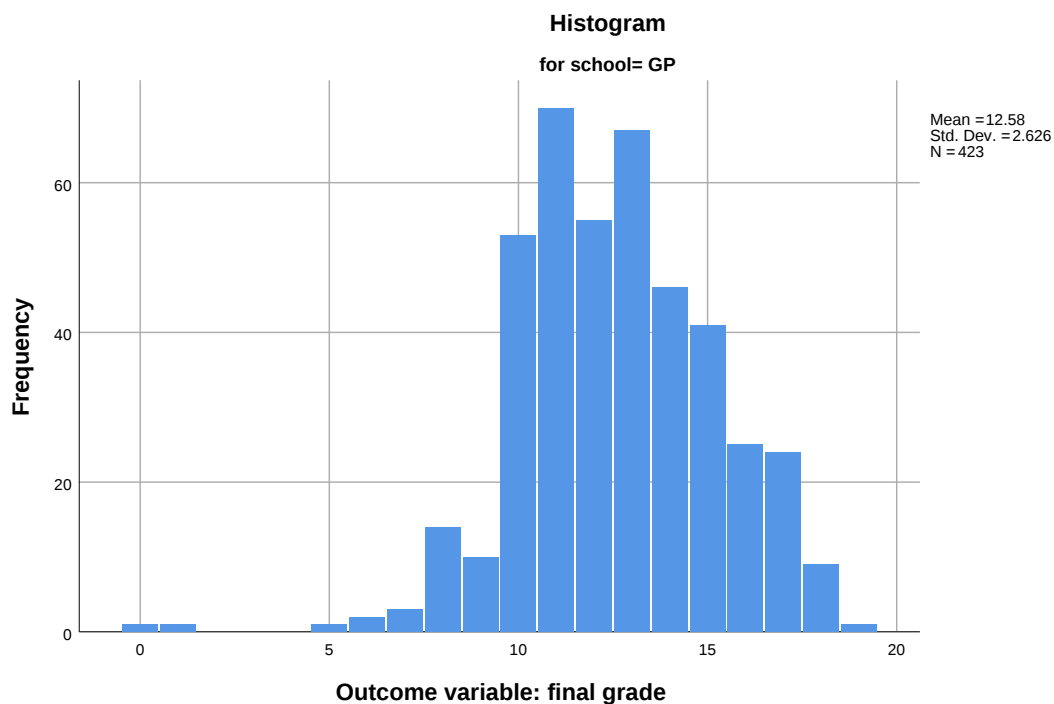
Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Outcome variable: final grade	GP	.092	423	.000	.965	423	.000
	MS	.147	226	.000	.905	226	.000

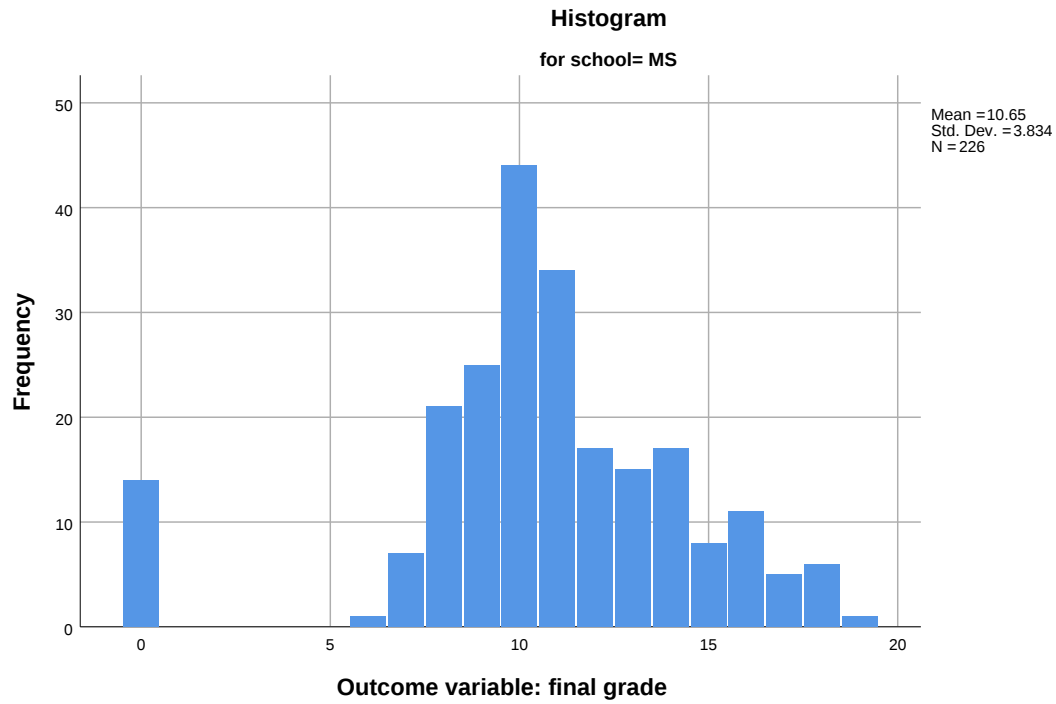
a. Lilliefors Significance Correction

Outcome variable: final grade

Histograms

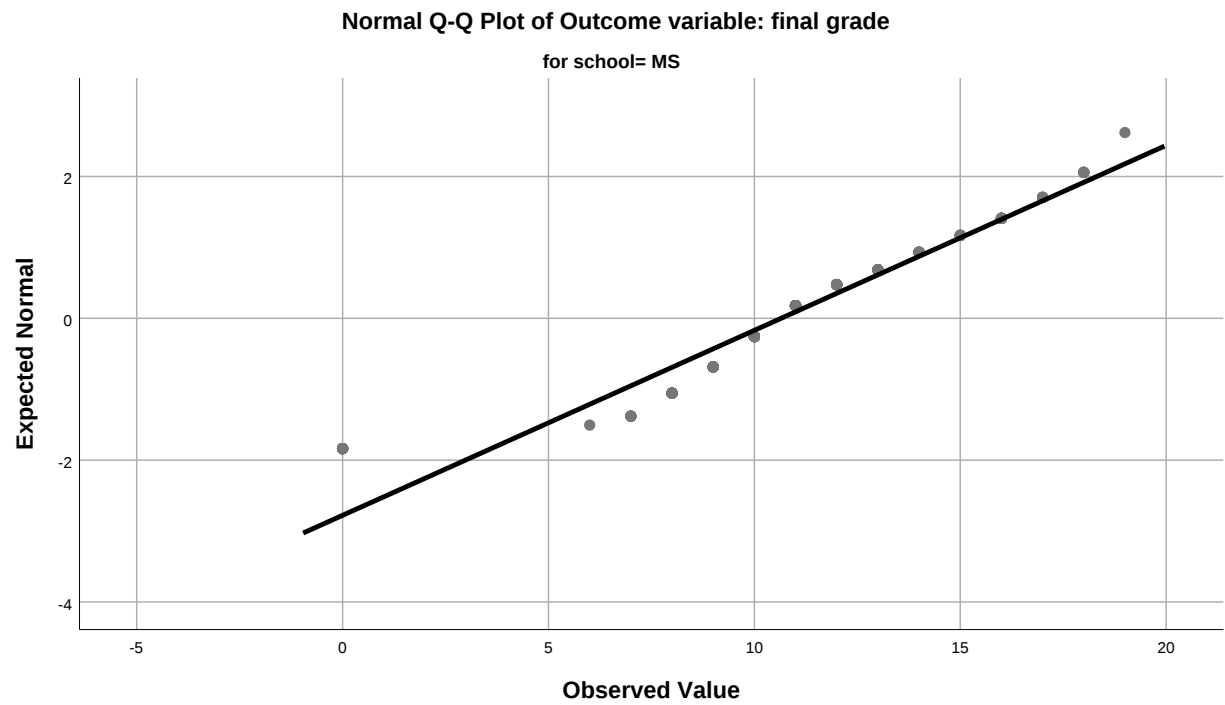
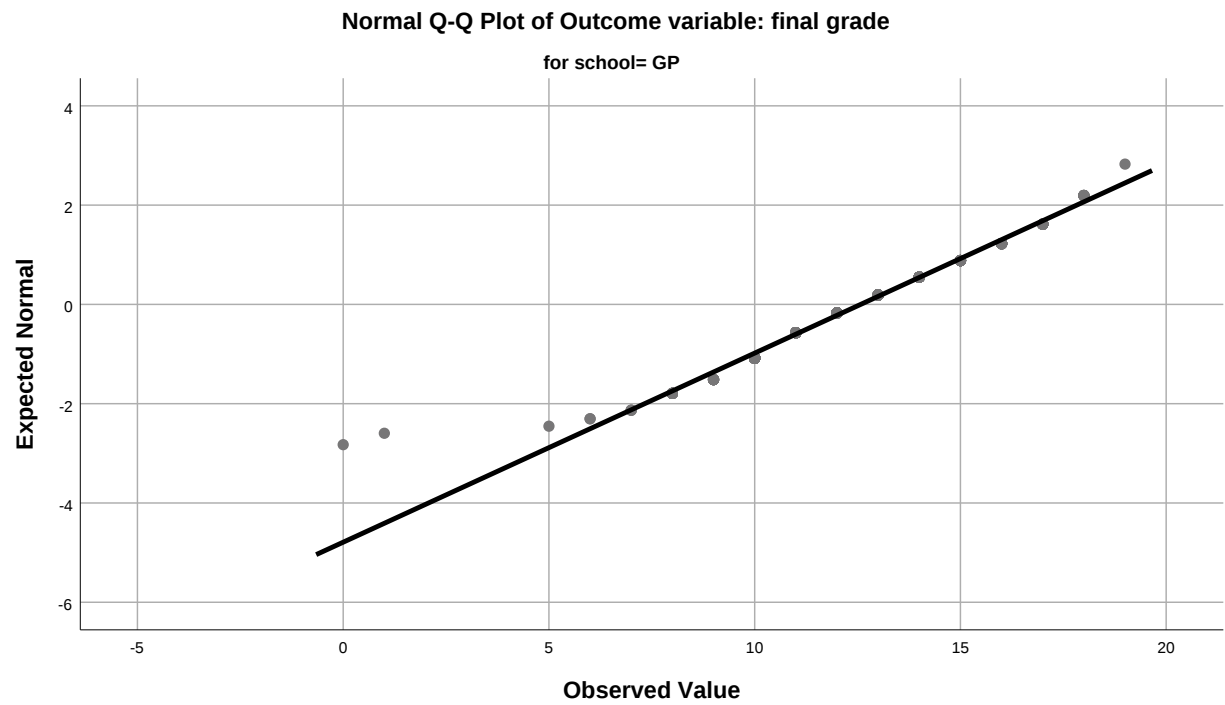


Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups



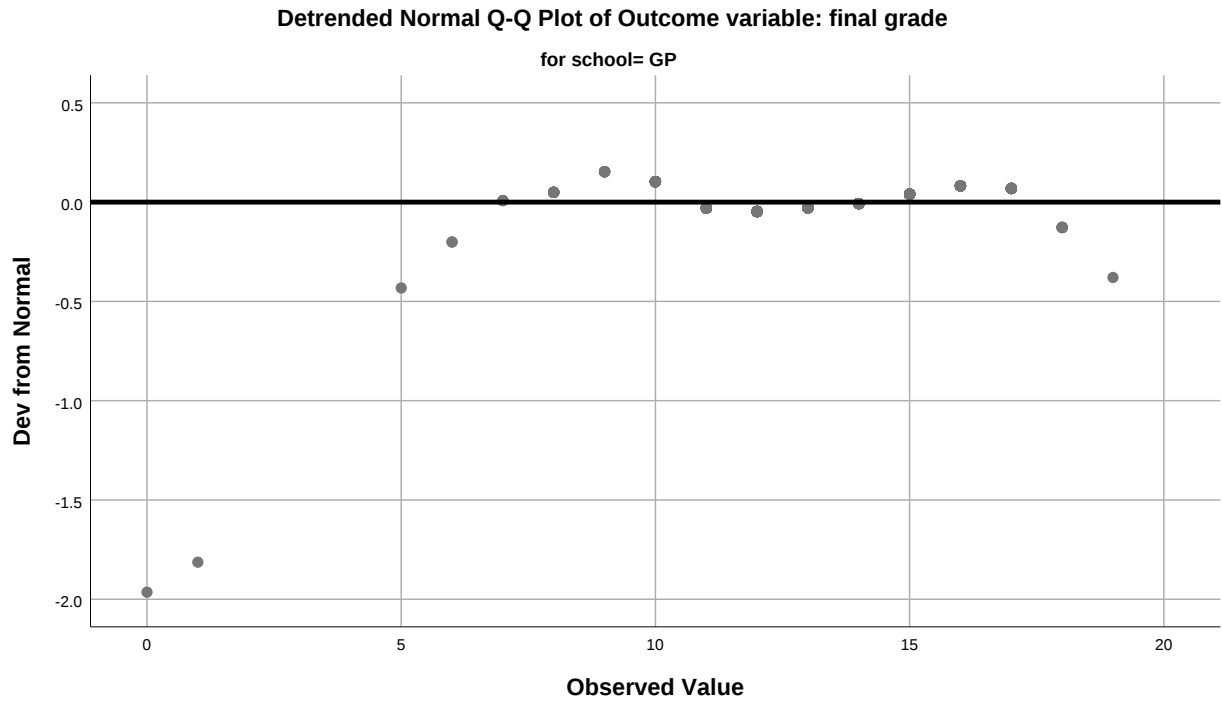
Normal Q-Q Plots

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

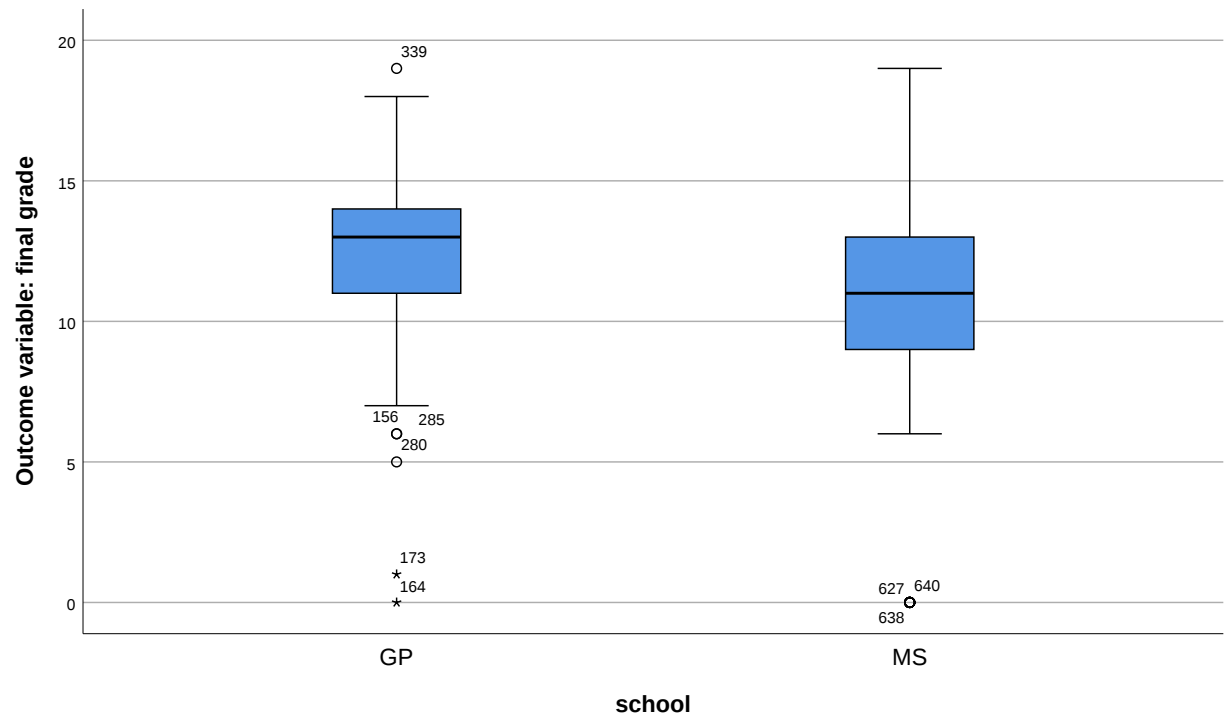
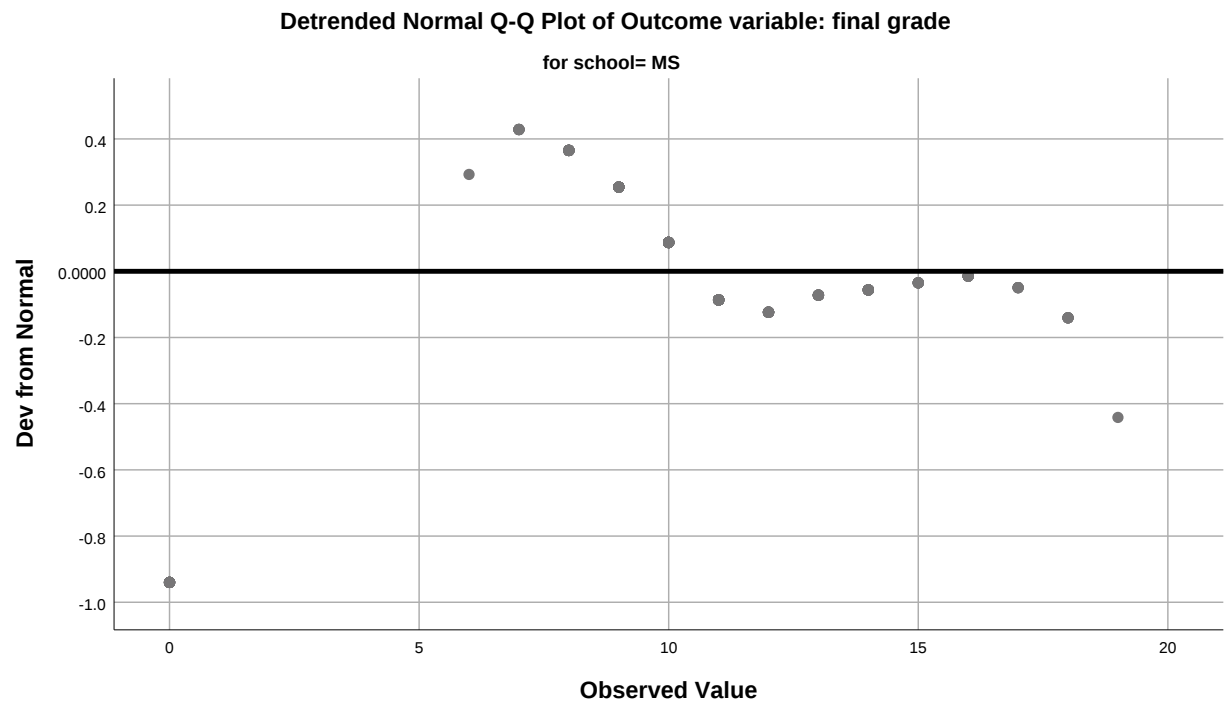


Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

Detrended Normal Q-Q Plots



Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups



Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

sex

Case Processing Summary

		Valid		Cases Missing		Total	
sex		N	Percent	N	Percent	N	Percent
Outcome variable: final grade	F	383	100.0%	0	0.0%	383	100.0%
	M	266	100.0%	0	0.0%	266	100.0%

Descriptives

sex		Statistic		Std. Error
Outcome variable: final grade	F	Mean	12.25	.160
		95% Confidence Interval for Mean	Lower Bound	11.94
			Upper Bound	12.57
		5% Trimmed Mean	12.37	
		Median	12.00	
		Variance	9.760	
		Std. Deviation	3.124	
		Minimum	0	
		Maximum	19	
		Range	19	
		Interquartile Range	4	
		Skewness	-.857	.125
		Kurtosis	2.683	.249
	M	Mean	11.41	.204
		95% Confidence Interval for Mean	Lower Bound	11.01
			Upper Bound	11.81
		5% Trimmed Mean	11.60	
		Median	11.00	
		Variance	11.027	
		Std. Deviation	3.321	
		Minimum	0	
		Maximum	19	
		Range	19	
		Interquartile Range	3	

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

Descriptives

sex		Statistic	Std. Error
	Skewness	-.980	.149
	Kurtosis	2.803	.298

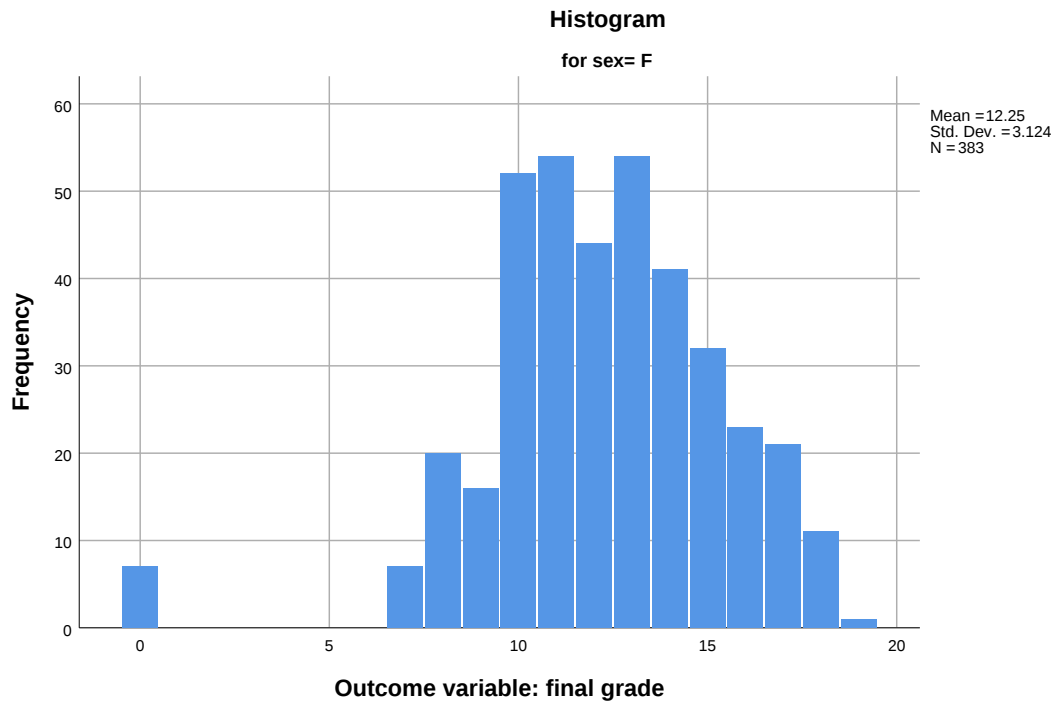
Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
sex		Statistic	df	Sig.	Statistic	df	Sig.
Outcome variable: final grade	F	.105	383	.000	.934	383	.000
	M	.148	266	.000	.913	266	.000

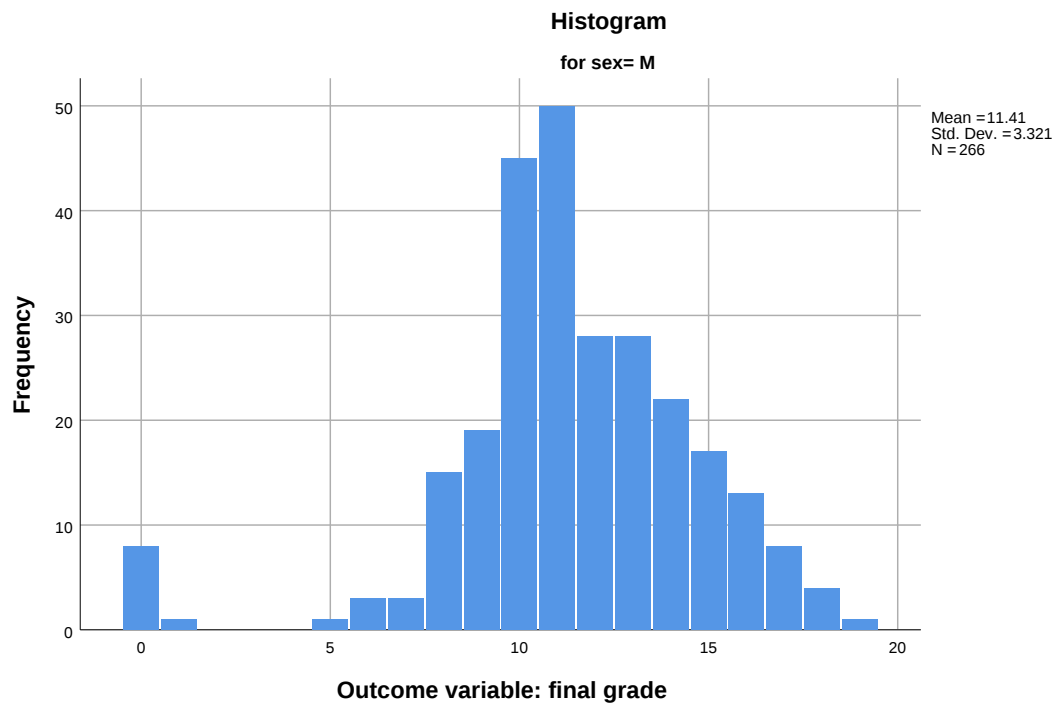
a. Lilliefors Significance Correction

Outcome variable: final grade

Histograms

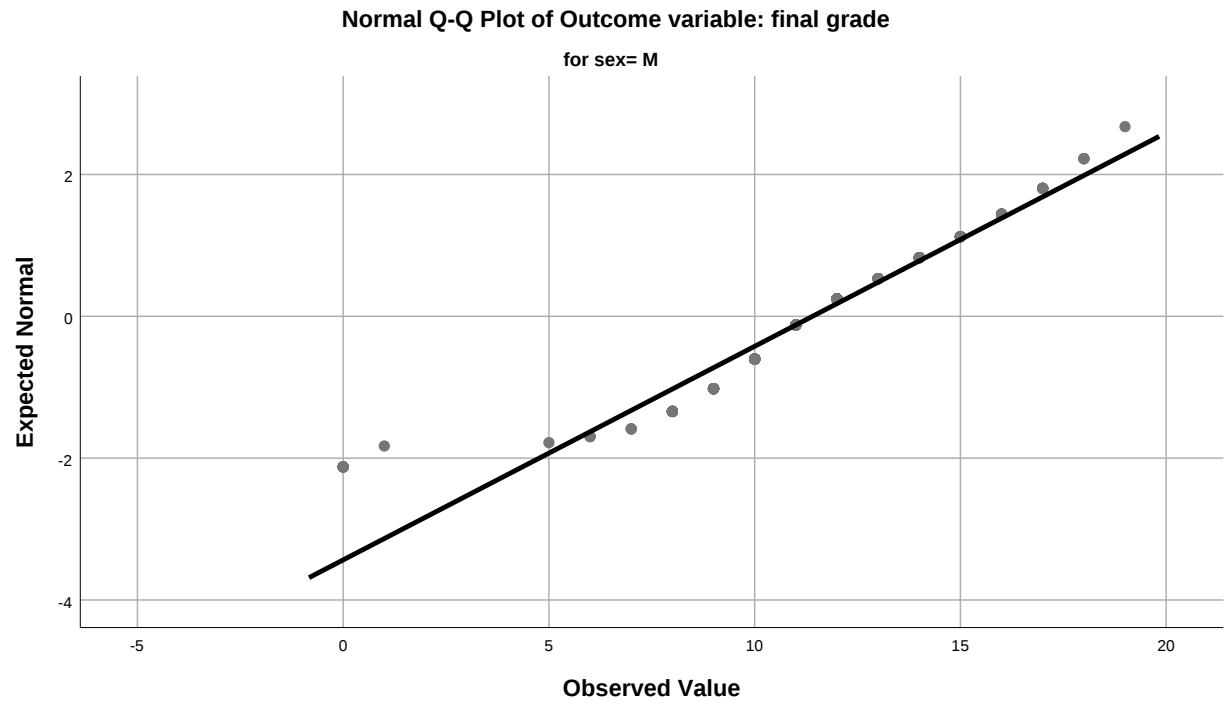
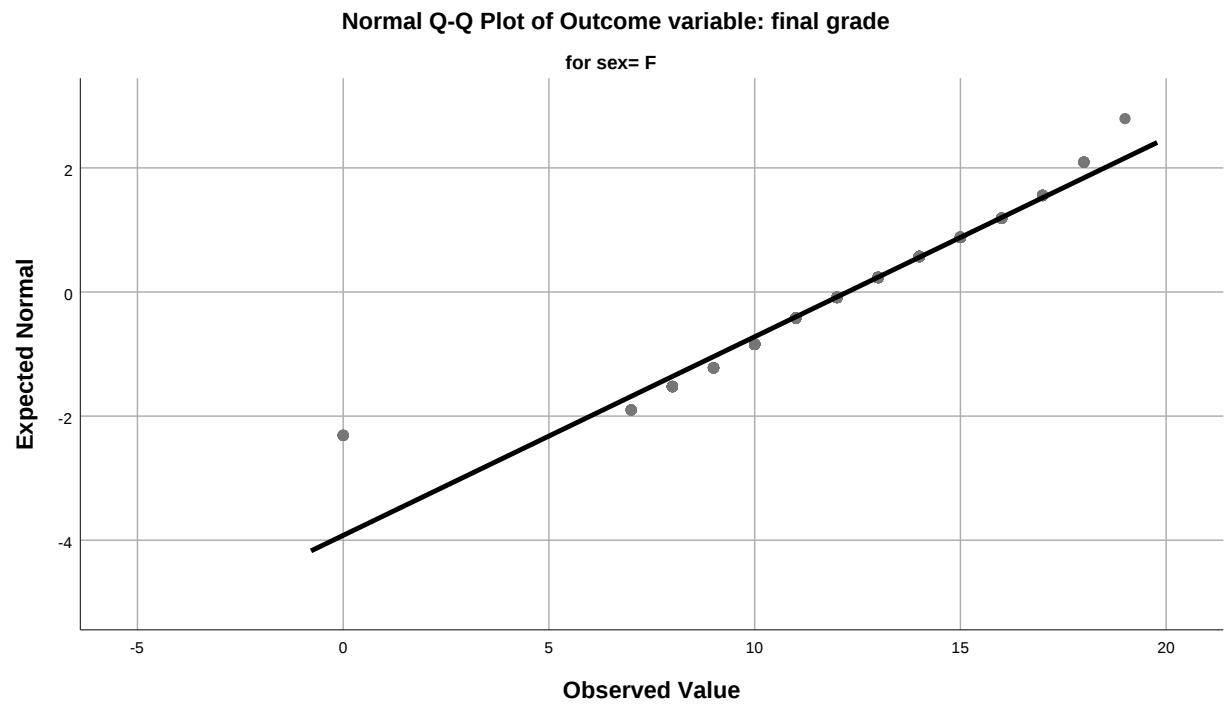


Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups



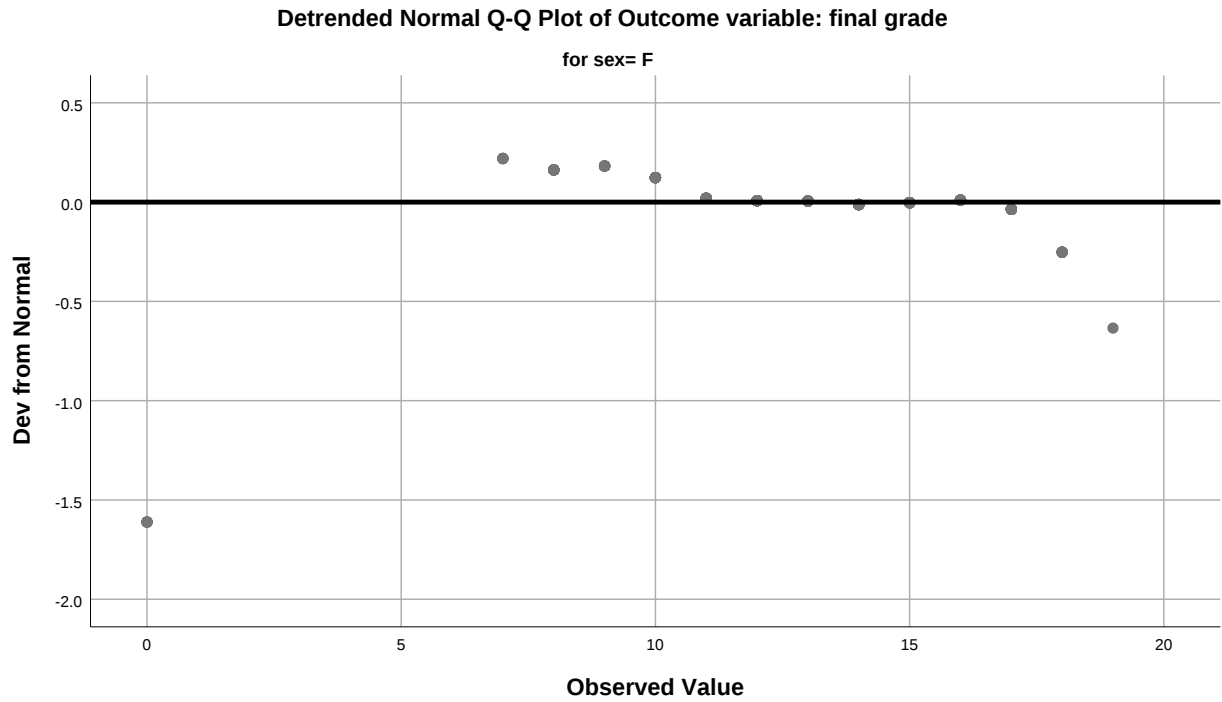
Normal Q-Q Plots

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

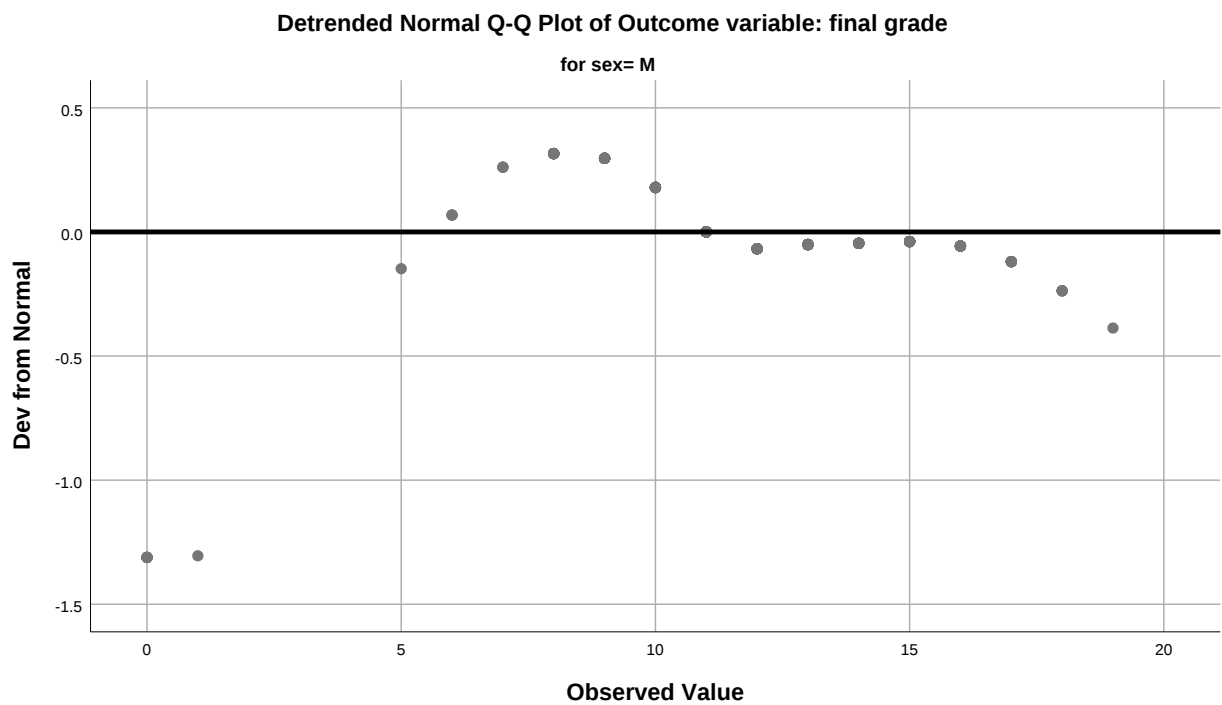


Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

Detrended Normal Q-Q Plots

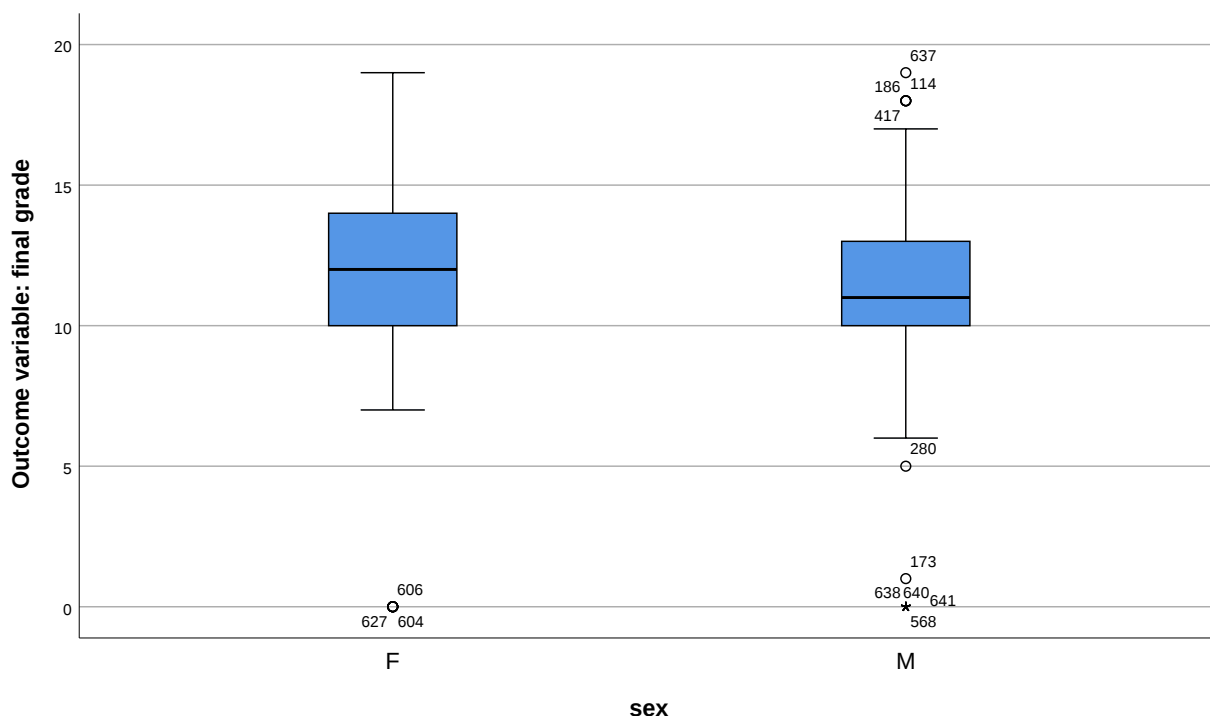


Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups



Boxplots

Outcome Distribution by Fixed Effects Final grade by selected fixed effect groups



address

Case Processing Summary

		Cases				
		Valid		Missing		Total
		N	Percent	N	Percent	N
Outcome variable: final grade	R	197	100.0%	0	0.0%	197
	U	452	100.0%	0	0.0%	452

Case Processing Summary

		Cases
		Total
		Percent
Outcome variable: final grade	R	100.0%
	U	100.0%

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

Descriptives

	address		Statistic	Std. Error
Outcome variable: final grade	R	Mean	11.09	.257
		95% Confidence Interval for Mean	Lower Bound	10.58
			Upper Bound	11.59
		5% Trimmed Mean	11.34	
		Median	11.00	
		Variance	12.998	
		Std. Deviation	3.605	
		Minimum	0	
		Maximum	19	
		Range	19	
		Interquartile Range	3	
		Skewness	-1.012	.173
		Kurtosis	2.642	.345
	U	Mean	12.26	.141
		95% Confidence Interval for Mean	Lower Bound	11.99
			Upper Bound	12.54
		5% Trimmed Mean	12.36	
		Median	12.00	
		Variance	8.926	
		Std. Deviation	2.988	
		Minimum	0	
		Maximum	19	
		Range	19	
		Interquartile Range	4	
		Skewness	-.722	.115
		Kurtosis	2.240	.229

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

Tests of Normality

	address	Kolmogorov-Smirnov ^a			Shapiro-Wilk	
		Statistic	df	Sig.	Statistic	df
Outcome variable: final grade	R	.158	197	.000	.889	197
	U	.100	452	.000	.949	452

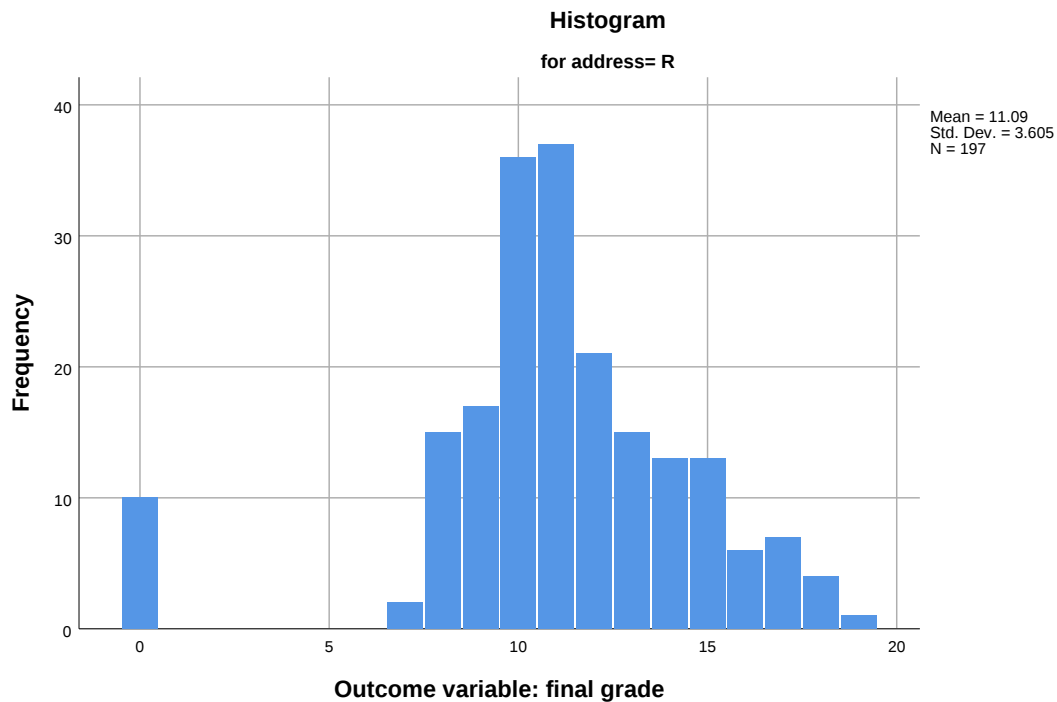
Tests of Normality

	address	Shapiro-...
		Sig.
Outcome variable: final grade	R	.000
	U	.000

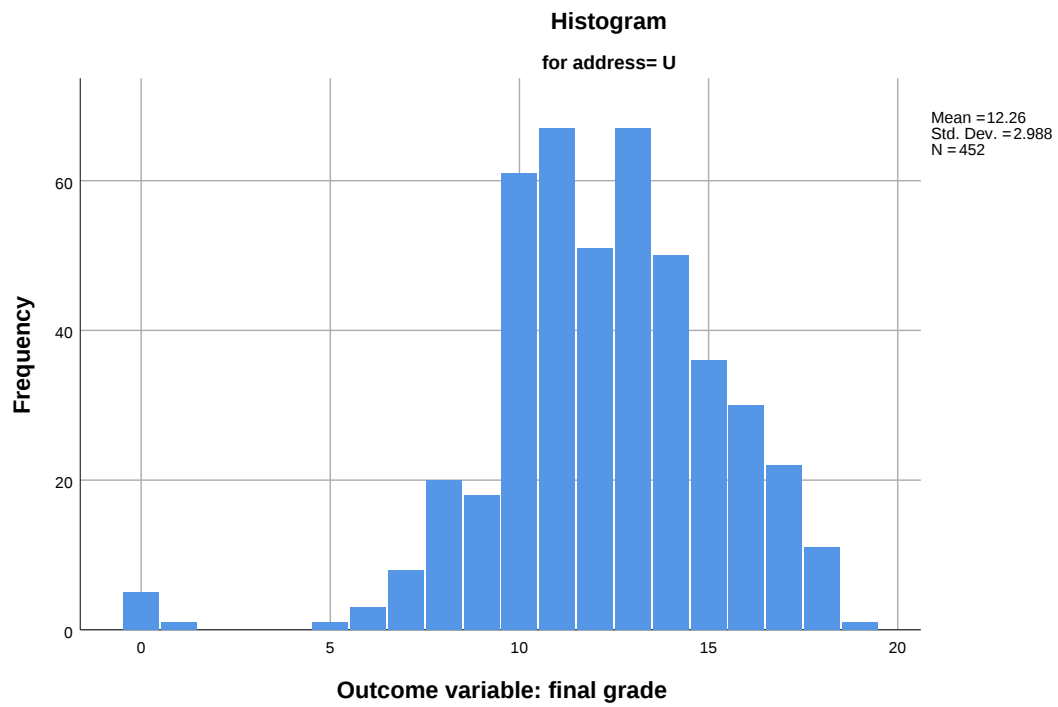
a. Lilliefors Significance Correction

Outcome variable: final grade

Histograms

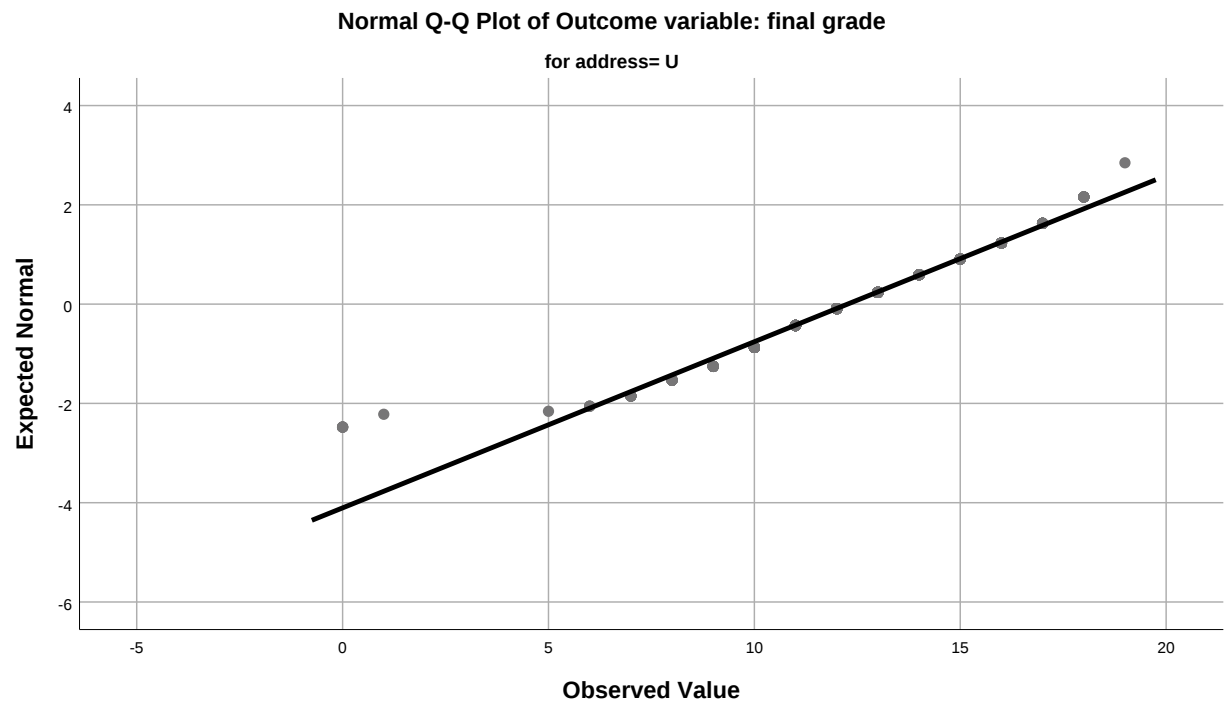
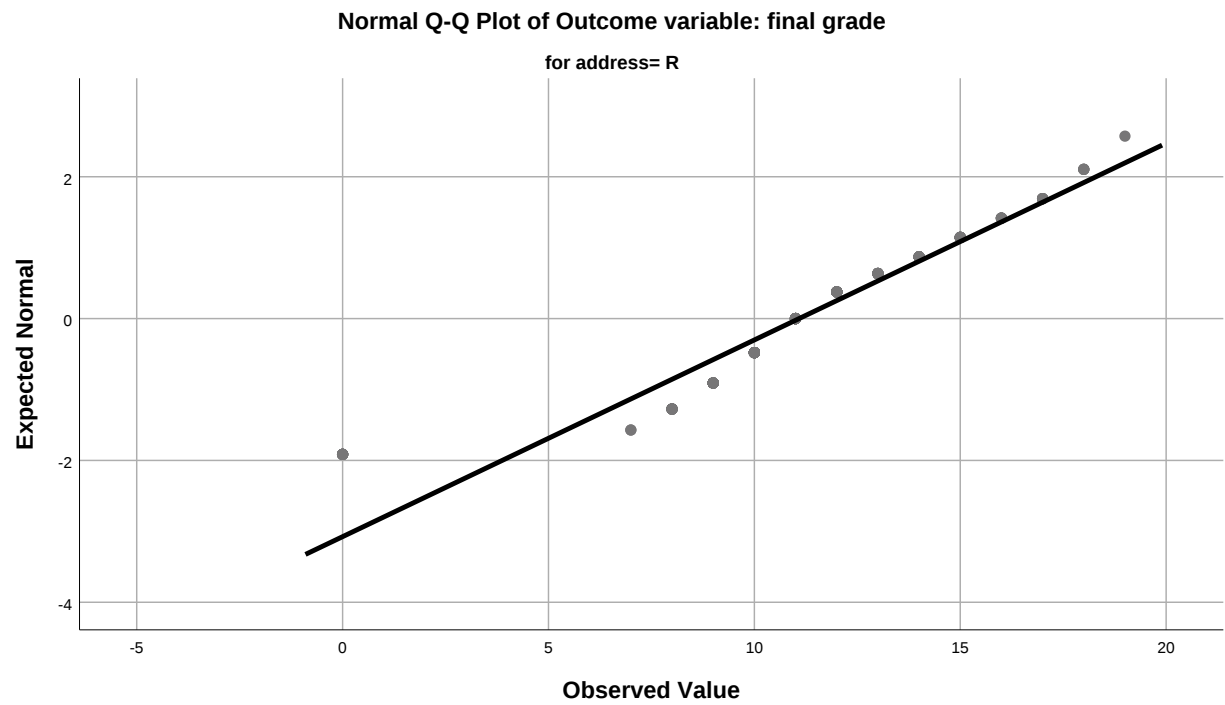


Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups



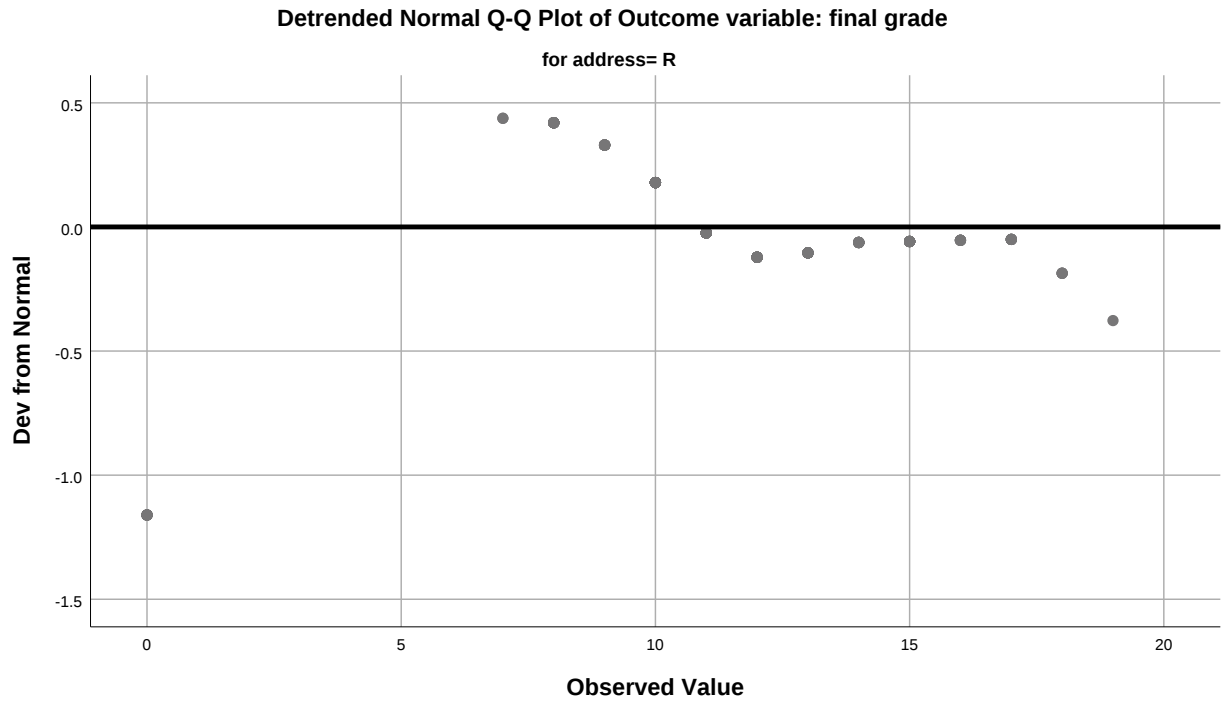
Normal Q-Q Plots

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

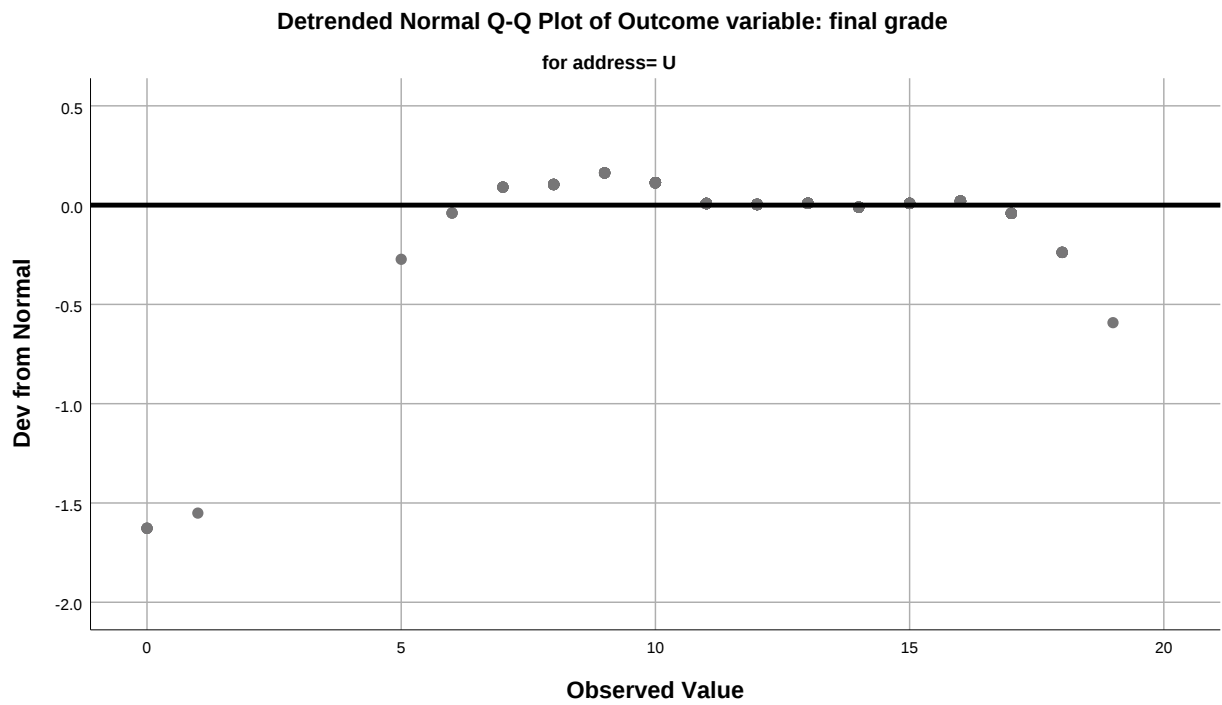


Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

Detrended Normal Q-Q Plots

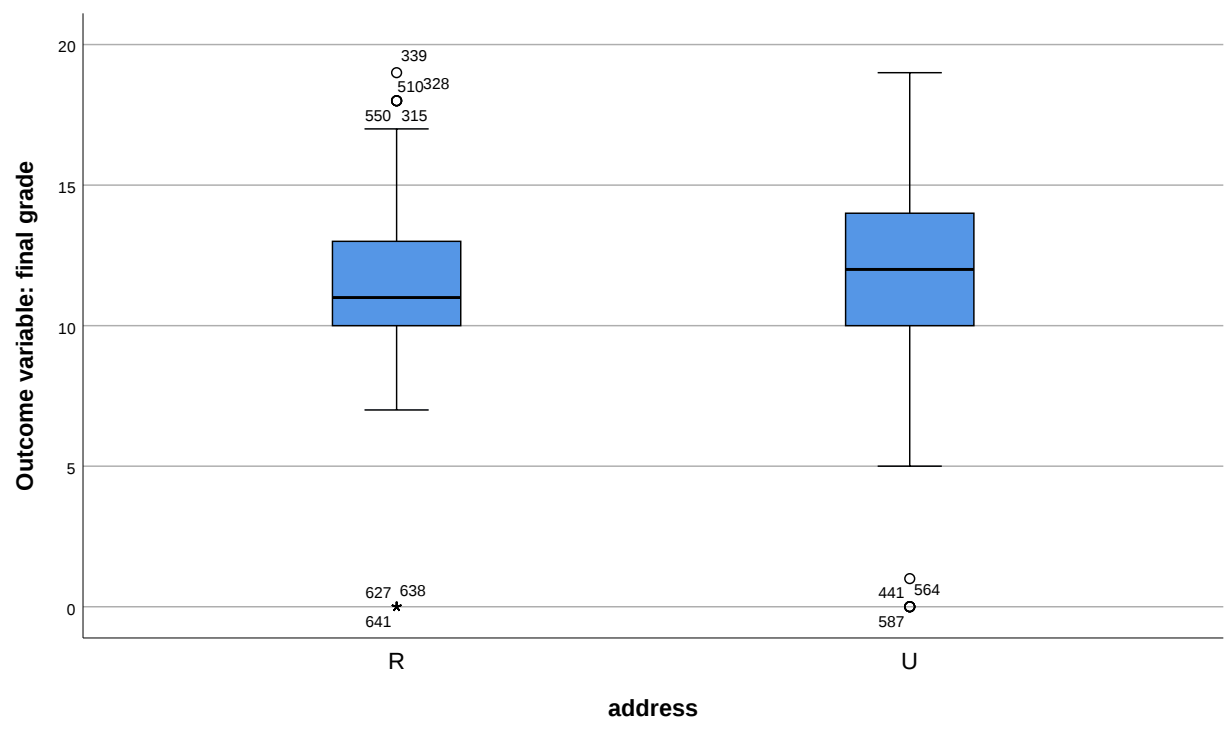


Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups



Boxplots

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups



higher

Case Processing Summary

		Valid		Cases Missing		Total	
		N	Percent	N	Percent	N	Percent
Outcome variable: final grade	no	69	100.0%	0	0.0%	69	100.0%
	yes	580	100.0%	0	0.0%	580	100.0%

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

Descriptives

	higher		Statistic	Std. Error
Outcome variable: final grade	no	Mean	8.80	.358
		95% Confidence Interval for Mean	Lower Bound	8.08
			Upper Bound	9.51
		5% Trimmed Mean	9.06	
		Median	10.00	
		Variance	8.841	
		Std. Deviation	2.973	
		Minimum	0	
		Maximum	14	
		Range	14	
		Interquartile Range	3	
		Skewness	-1.764	.289
		Kurtosis	3.443	.570
	yes	Mean	12.28	.127
		95% Confidence Interval for Mean	Lower Bound	12.03
			Upper Bound	12.53
		5% Trimmed Mean	12.39	
		Median	12.00	
		Variance	9.354	
		Std. Deviation	3.058	
		Minimum	0	
		Maximum	19	
		Range	19	
		Interquartile Range	4	
		Skewness	-.920	.101
		Kurtosis	3.109	.203

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

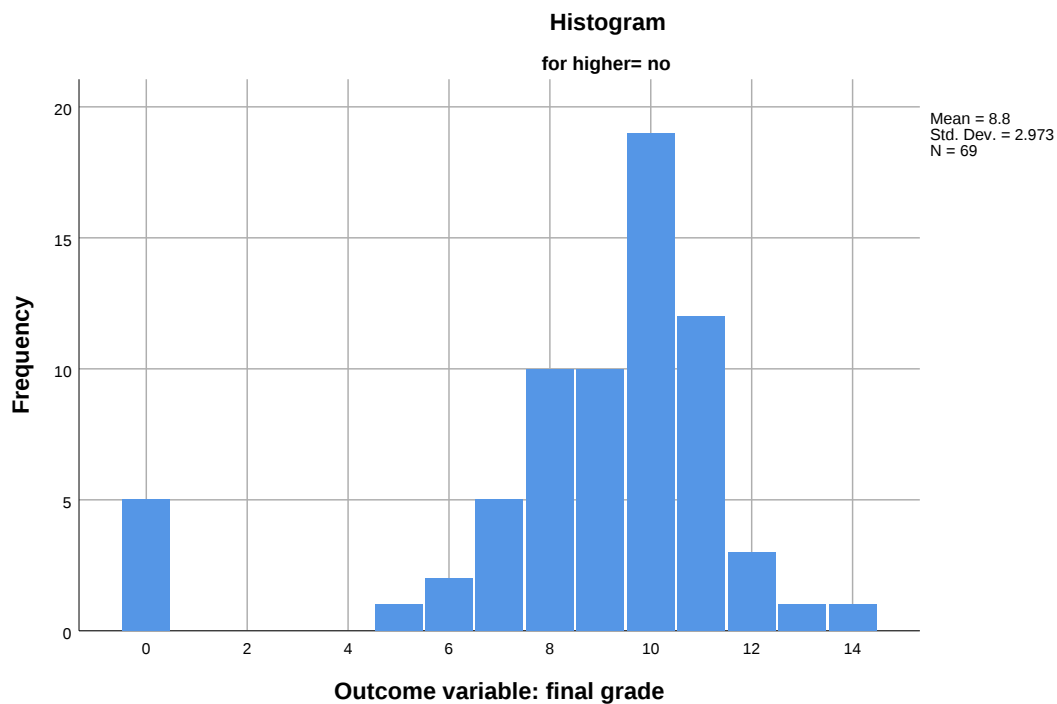
Tests of Normality

	higher	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Outcome variable: final grade	no	.206	69	.000	.797	69	.000
	yes	.113	580	.000	.926	580	.000

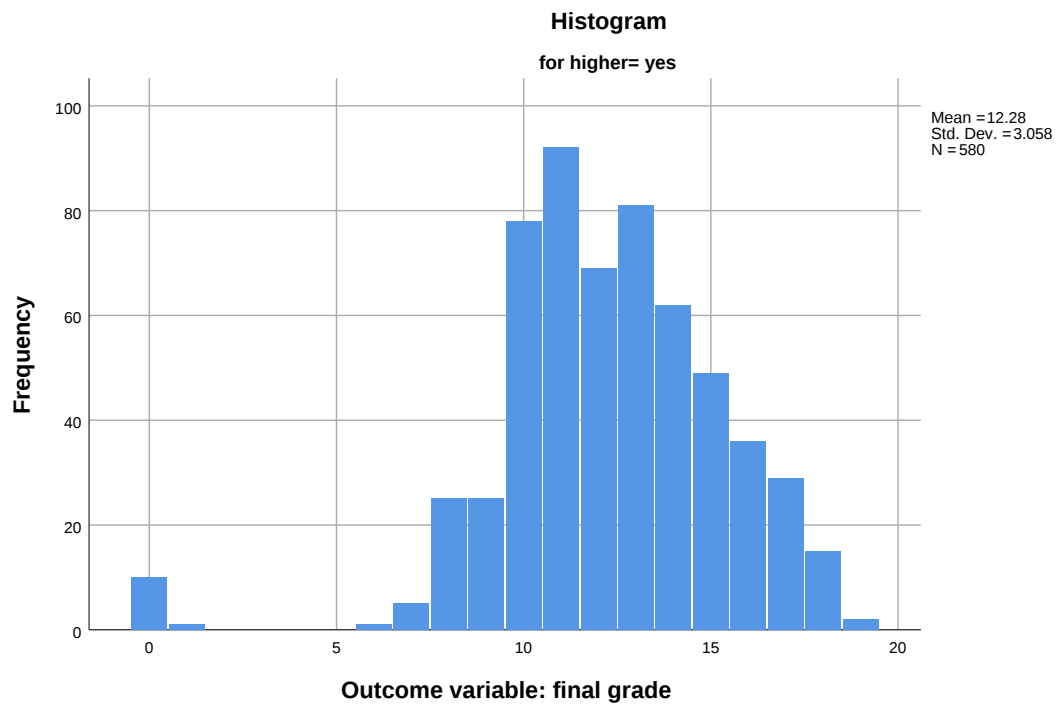
a. Lilliefors Significance Correction

Outcome variable: final grade

Histograms

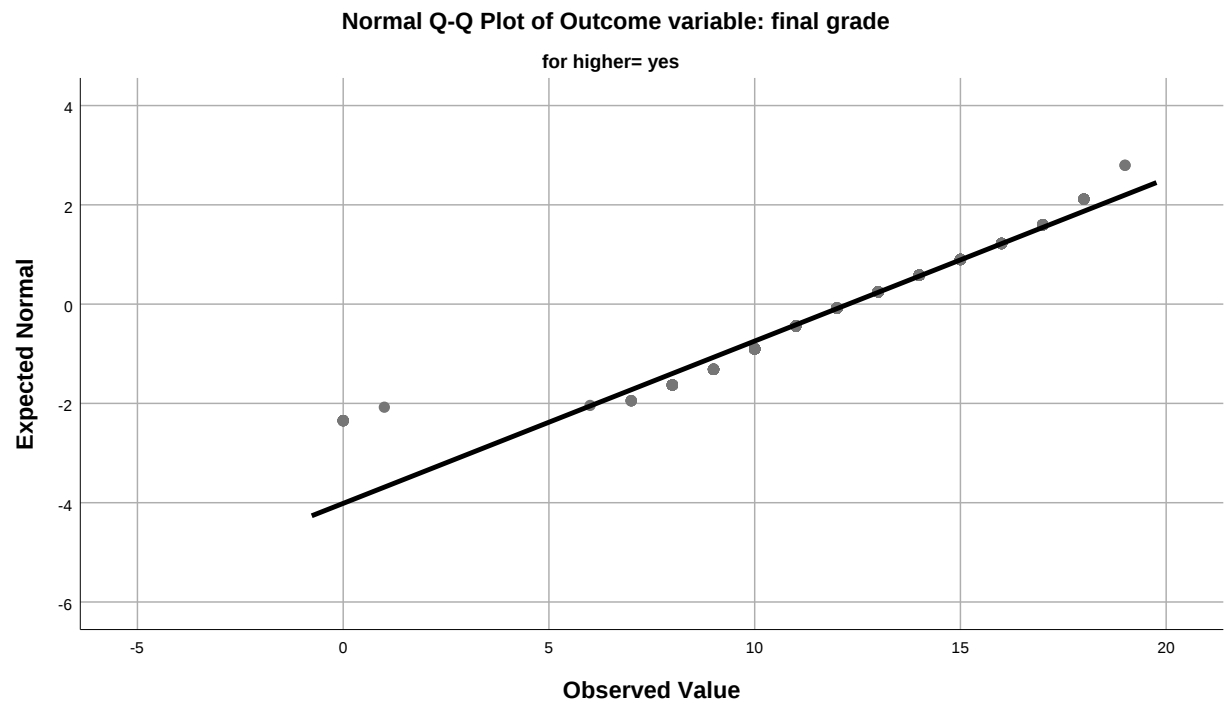
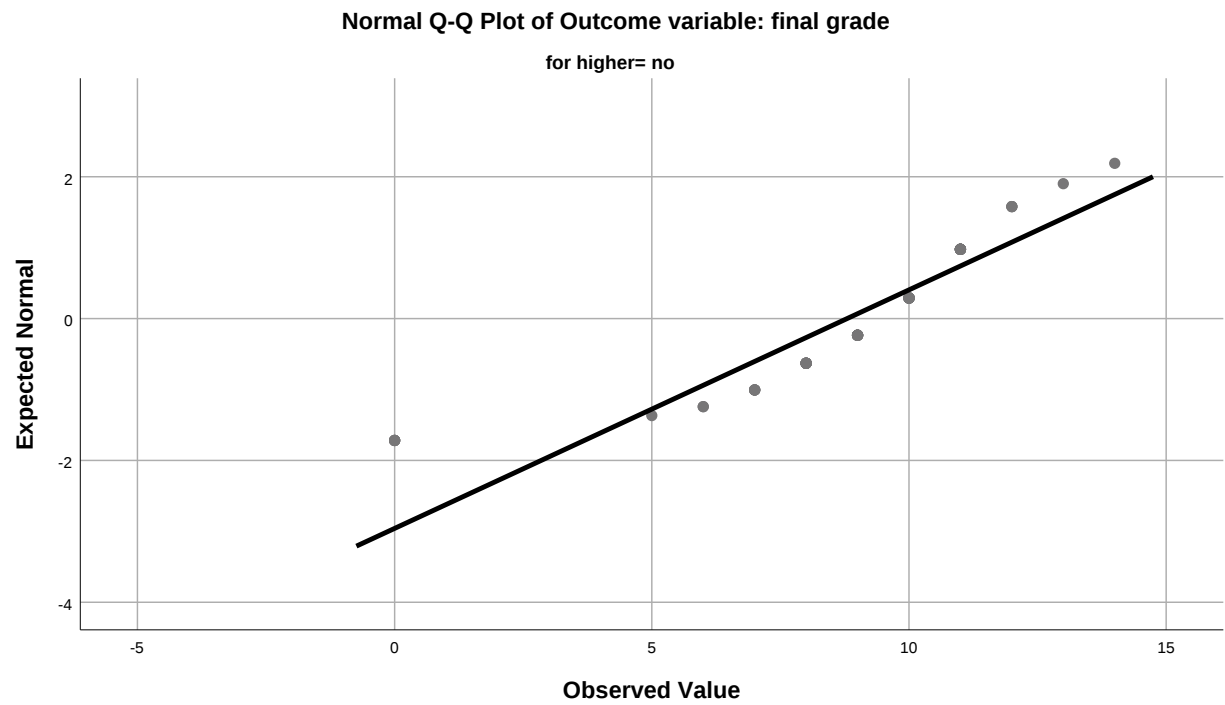


Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups



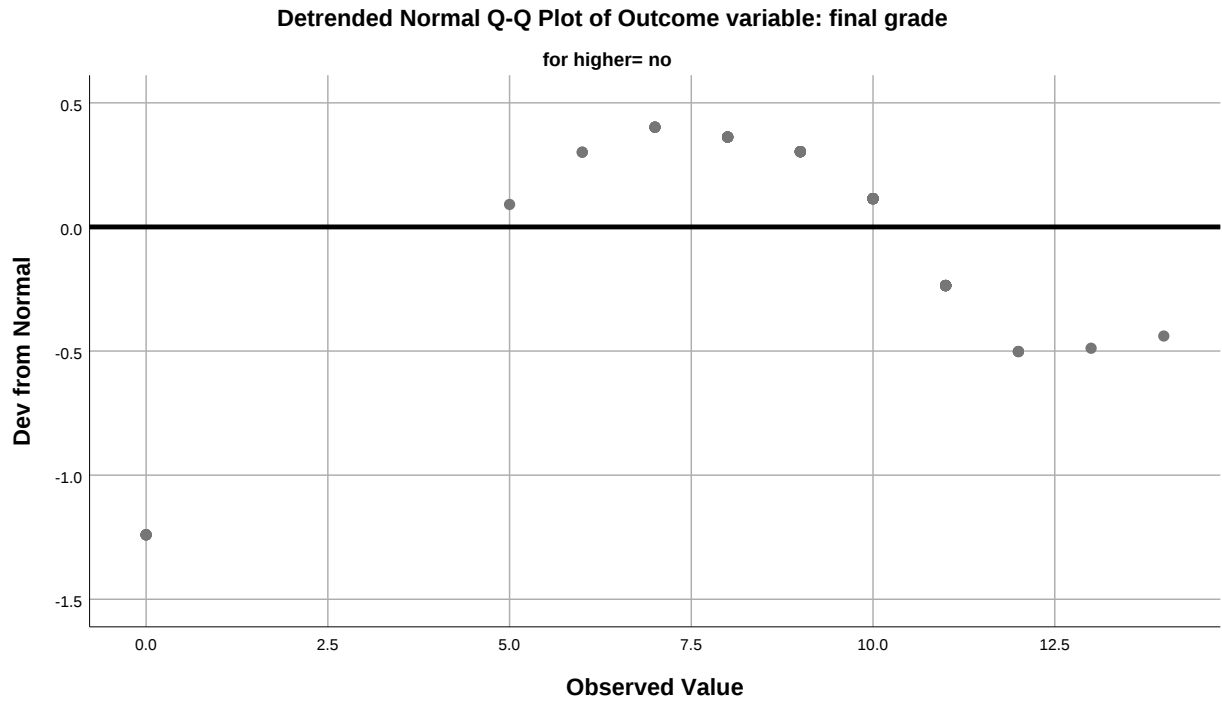
Normal Q-Q Plots

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

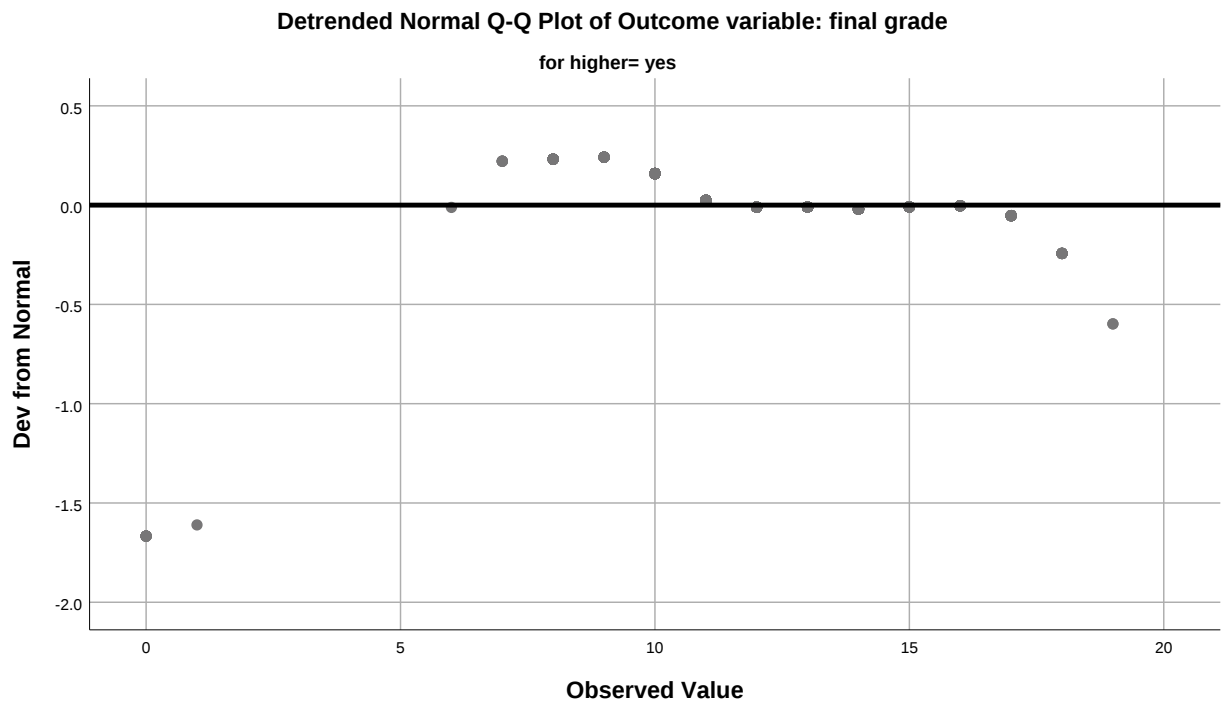


Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups

Detrended Normal Q-Q Plots

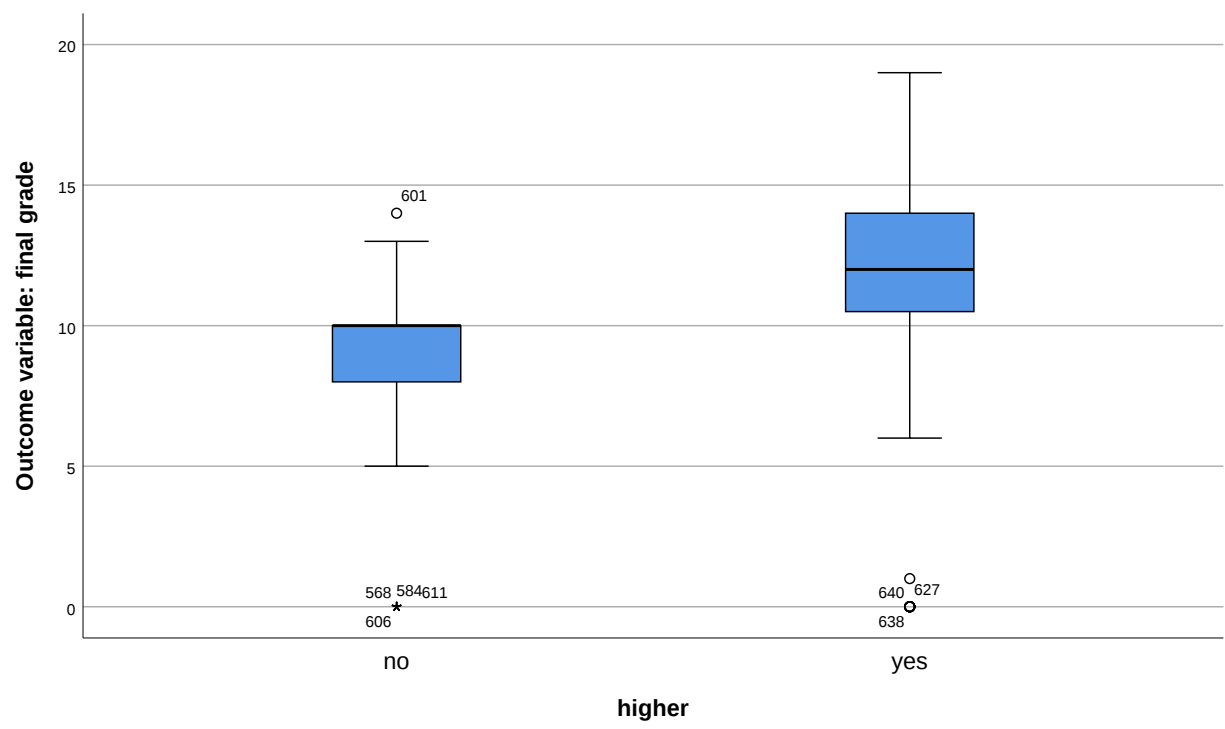


Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups



Boxplots

Outcome Distribution by Fixed Effects
Final grade by selected fixed effect groups



Pooled Linear Regression Baseline

Pooled Linear Regression Baseline
Regression without fixed effect dummies

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Current health status, Mother education, School absences, Weekly study time group, Student age, Home to school travel time, Second period grade, Number of past class failures, Father education, First period grade ^b	.	Enter

a. Dependent Variable: Outcome variable: final grade

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.923 ^a	.852	.849	1.254

a. Predictors: (Constant), Current health status, Mother education, School absences, Weekly study time group, Student age, Home to school travel time, Second period grade, Number of past class failures, Father education, First period grade

b. Dependent Variable: Outcome variable: final grade

Pooled Linear Regression Baseline
Regression without fixed effect dummies

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5759.826	10	575.983	366.217	.000 ^b
	Residual	1003.441	638	1.573		
	Total	6763.267	648			

a. Dependent Variable: Outcome variable: final grade

b. Predictors: (Constant), Current health status, Mother education, School absences, Weekly study time group, Student age, Home to school travel time, Second period grade, Number of past class failures, Father education, First period grade

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.488	.804		-.608	.544
	First period grade	.147	.037	.125	3.997	.000
	Second period grade	.882	.034	.795	25.611	.000
	Weekly study time group	.094	.062	.024	1.513	.131
	Number of past class failures	-.236	.095	-.043	-2.477	.013
	School absences	.022	.011	.032	2.044	.041
	Student age	.023	.044	.009	.529	.597
	Mother education	-.036	.059	-.013	-.611	.541
	Father education	.030	.059	.010	.512	.609
	Home to school travel time	.079	.069	.018	1.149	.251
	Current health status	-.051	.034	-.023	-1.470	.142

Pooled Linear Regression Baseline
Regression without fixed effect dummies

Coefficients^a

Model		95.0% Confidence Interval for B	
		Lower Bound	Upper Bound
1	(Constant)	-2.067	1.090
	First period grade	.075	.219
	Second period grade	.814	.949
	Weekly study time group	-.028	.216
	Number of past class failures	-.423	-.049
	School absences	.001	.044
	Student age	-.063	.109
	Mother education	-.151	.079
	Father education	-.086	.147
	Home to school travel time	-.056	.214
	Current health status	-.118	.017

a. Dependent Variable: Outcome variable: final grade

Pooled Linear Regression Baseline
Regression without fixed effect dummies

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	First period grade	Second period grade
1	1	8.693	1.000	.00	.00	.00
	2	.948	3.028	.00	.00	.00
	3	.577	3.881	.00	.00	.00
	4	.274	5.629	.00	.00	.00
	5	.161	7.347	.00	.00	.00
	6	.151	7.582	.00	.00	.00
	7	.093	9.664	.00	.03	.04
	8	.061	11.961	.00	.00	.00
	9	.031	16.643	.04	.04	.05
	10	.008	33.577	.00	.87	.89
	11	.002	63.864	.96	.05	.02

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions				
		Weekly study time group	Number of past class failures	School absences	Student age	Mother education
1	1	.00	.00	.00	.00	.00
	2	.00	.60	.04	.00	.00
	3	.00	.10	.88	.00	.00
	4	.01	.06	.00	.00	.09
	5	.49	.02	.01	.00	.01
	6	.00	.00	.00	.00	.03
	7	.47	.02	.00	.00	.01
	8	.00	.00	.00	.00	.85
	9	.03	.14	.05	.06	.02
	10	.00	.00	.00	.00	.00
	11	.00	.04	.00	.94	.00

Pooled Linear Regression Baseline
Regression without fixed effect dummies

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions		
		Father education	Home to school travel time	Current health status
1	1	.00	.00	.00
	2	.00	.00	.00
	3	.00	.00	.00
	4	.10	.26	.00
	5	.05	.16	.12
	6	.04	.27	.60
	7	.08	.09	.08
	8	.72	.01	.00
	9	.00	.19	.16
	10	.00	.00	.01
	11	.01	.02	.01

a. Dependent Variable: Outcome variable: final grade

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.15	19.60	11.91	2.981	649
Residual	-8.968	5.685	.000	1.244	649
Std. Predicted Value	-3.943	2.581	.000	1.000	649
Std. Residual	-7.151	4.533	.000	.992	649

a. Dependent Variable: Outcome variable: final grade

One-Way Fixed Effects Regression

One-Way Fixed Effects Regression
School fixed effects included with numeric predictors

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	School fixed effect dummy: 1 = MS, 0 = GP, Current health status, Student age, Weekly study time group, Father education, School absences, Home to school travel time, Number of past class failures, Second period grade, Mother education, First period grade ^b	.	Enter

a. Dependent Variable: Outcome variable: final grade

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.923 ^a	.853	.850	1.251

a. Predictors: (Constant), School fixed effect dummy: 1 = MS, 0 = GP, Current health status, Student age, Weekly study time group, Father education, School absences, Home to school travel time, Number of past class failures, Second period grade, Mother education, First period grade

b. Dependent Variable: Outcome variable: final grade

One-Way Fixed Effects Regression
School fixed effects included with numeric predictors

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5766.284	11	524.208	334.931	.000 ^b
	Residual	996.983	637	1.565		
	Total	6763.267	648			

a. Dependent Variable: Outcome variable: final grade

b. Predictors: (Constant), School fixed effect dummy: 1 = MS, 0 = GP, Current health status, Student age, Weekly study time group, Father education, School absences, Home to school travel time, Number of past class failures, Second period grade, Mother education, First period grade

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.333	.806		-.414	.679
	First period grade	.138	.037	.118	3.762	.000
	Second period grade	.880	.034	.793	25.607	.000
	Weekly study time group	.083	.062	.021	1.329	.184
	Number of past class failures	-.241	.095	-.044	-2.537	.011
	School absences	.017	.011	.025	1.526	.127
	Student age	.029	.044	.011	.666	.505
	Mother education	-.048	.059	-.017	-.811	.418
	Father education	.028	.059	.009	.470	.639
	Home to school travel time	.104	.070	.024	1.492	.136
	Current health status	-.056	.034	-.025	-1.633	.103
	School fixed effect dummy: 1 = MS, 0 = GP	-.235	.116	-.035	-2.031	.043

One-Way Fixed Effects Regression
School fixed effects included with numeric predictors

Coefficients^a

Model		95.0% Confidence Interval for B	
		Lower Bound	Upper Bound
1	(Constant)	-1.915	1.249
	First period grade	.066	.211
	Second period grade	.812	.947
	Weekly study time group	-.039	.205
	Number of past class failures	-.427	-.054
	School absences	-.005	.039
	Student age	-.057	.115
	Mother education	-.163	.068
	Father education	-.089	.144
	Home to school travel time	-.033	.241
	Current health status	-.124	.011
	School fixed effect dummy: 1 = MS, 0 = GP	-.462	-.008

a. Dependent Variable: Outcome variable: final grade

One-Way Fixed Effects Regression
School fixed effects included with numeric predictors

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions	
					First period grade	Second period grade
1	1	9.027	1.000	.00	.00	.00
	2	.979	3.037	.00	.00	.00
	3	.758	3.451	.00	.00	.00
	4	.503	4.237	.00	.00	.00
	5	.237	6.172	.00	.00	.00
	6	.157	7.593	.00	.00	.00
	7	.148	7.798	.00	.00	.00
	8	.093	9.849	.00	.03	.04
	9	.061	12.190	.00	.00	.00
	10	.028	17.960	.04	.04	.05
	11	.008	34.245	.00	.87	.88
	12	.002	65.100	.96	.05	.02

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions				
		Weekly study time group	Number of past class failures	School absences	Student age	Mother education
1	1	.00	.00	.00	.00	.00
	2	.00	.52	.01	.00	.00
	3	.00	.04	.28	.00	.00
	4	.01	.20	.59	.00	.00
	5	.04	.01	.00	.00	.09
	6	.38	.02	.01	.00	.00
	7	.08	.00	.01	.00	.03
	8	.46	.02	.00	.00	.01
	9	.00	.00	.00	.00	.84
	10	.04	.14	.08	.07	.02
	11	.00	.00	.00	.00	.00
	12	.00	.04	.00	.93	.00

One-Way Fixed Effects Regression
School fixed effects included with numeric predictors

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions			
		Father education	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP
1	1	.00	.00	.00	.00
	2	.00	.00	.00	.06
	3	.00	.00	.00	.37
	4	.00	.00	.00	.23
	5	.13	.20	.01	.17
	6	.01	.06	.42	.03
	7	.05	.51	.30	.04
	8	.08	.09	.09	.00
	9	.72	.01	.00	.00
	10	.00	.11	.16	.12
	11	.00	.00	.01	.00
	12	.01	.01	.01	.00

a. Dependent Variable: Outcome variable: final grade

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.09	19.62	11.91	2.983	649
Residual	-9.091	5.489	.000	1.240	649
Std. Predicted Value	-3.962	2.587	.000	1.000	649
Std. Residual	-7.266	4.387	.000	.991	649

a. Dependent Variable: Outcome variable: final grade

Multi-Way Fixed Effects Regression

```
>Warning # 2004.  Command name: SUBTITLE  
>The subtitle given exceeds 60 characters in length.  The first 60 characters  
>will be used.
```

Multi-Way Fixed Effects Regression
School, sex, address, higher education, and internet fixed e

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Internet access fixed effect dummy: yes, Student age, Current health status, Weekly study time group, Address fixed effect dummy: 1 = urban, 0 = rural, School absences, Father education, Sex fixed effect dummy: 1 = male, 0 = female, Higher education intention fixed effect dummy: yes, Home to school travel time, Number of past class failures, School fixed effect dummy: 1 = MS, 0 = GP, Second period grade, Mother education, First period grade ^b	.	Enter

a. Dependent Variable: Outcome variable: final grade

b. All requested variables entered.

Multi-Way Fixed Effects Regression
School, sex, address, higher education, and internet fixed e

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.924 ^a	.854	.851	1.248

- a. Predictors: (Constant), Internet access fixed effect dummy: yes, Student age, Current health status, Weekly study time group, Address fixed effect dummy: 1 = urban, 0 = rural, School absences, Father education, Sex fixed effect dummy: 1 = male, 0 = female, Higher education intention fixed effect dummy: yes, Home to school travel time, Number of past class failures, School fixed effect dummy: 1 = MS, 0 = GP, Second period grade, Mother education, First period grade
- b. Dependent Variable: Outcome variable: final grade

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5776.701	15	385.113	247.096	.000 ^b
	Residual	986.565	633	1.559		
	Total	6763.267	648			

- a. Dependent Variable: Outcome variable: final grade
- b. Predictors: (Constant), Internet access fixed effect dummy: yes, Student age, Current health status, Weekly study time group, Address fixed effect dummy: 1 = urban, 0 = rural, School absences, Father education, Sex fixed effect dummy: 1 = male, 0 = female, Higher education intention fixed effect dummy: yes, Home to school travel time, Number of past class failures, School fixed effect dummy: 1 = MS, 0 = GP, Second period grade, Mother education, First period grade

Multi-Way Fixed Effects Regression
School, sex, address, higher education, and internet fixed e

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.566	.843		-.671	.502
	First period grade	.133	.037	.113	3.608	.000
	Second period grade	.876	.034	.790	25.489	.000
	Weekly study time group	.055	.064	.014	.858	.391
	Number of past class failures	-.219	.096	-.040	-2.284	.023
	School absences	.016	.011	.023	1.454	.146
	Student age	.031	.044	.012	.709	.479
	Mother education	-.047	.060	-.017	-.786	.432
	Father education	.027	.059	.009	.448	.654
	Home to school travel time	.143	.073	.033	1.973	.049
	Current health status	-.049	.035	-.022	-1.399	.162
	School fixed effect dummy: 1 = MS, 0 = GP	-.206	.121	-.030	-1.704	.089
	Sex fixed effect dummy: 1 = male, 0 = female	-.191	.106	-.029	-1.809	.071
	Address fixed effect dummy: 1 = urban, 0 = rural	.164	.119	.023	1.374	.170
	Higher education intention fixed effect dummy: yes	.189	.179	.018	1.055	.292
	Internet access fixed effect dummy: yes	.070	.124	.009	.565	.573

Multi-Way Fixed Effects Regression
School, sex, address, higher education, and internet fixed e

Coefficients^a

Model		95.0% Confidence Interval for B	
		Lower Bound	Upper Bound
1	(Constant)	-2.220	1.089
	First period grade	.061	.205
	Second period grade	.808	.943
	Weekly study time group	-.070	.179
	Number of past class failures	-.407	-.031
	School absences	-.006	.038
	Student age	-.056	.118
	Mother education	-.165	.071
	Father education	-.090	.143
	Home to school travel time	.001	.286
	Current health status	-.117	.020
	School fixed effect dummy: 1 = MS, 0 = GP	-.443	.031
	Sex fixed effect dummy: 1 = male, 0 = female	-.398	.016
	Address fixed effect dummy: 1 = urban, 0 = rural	-.070	.398
	Higher education intention fixed effect dummy: yes	-.163	.541
	Internet access fixed effect dummy: yes	-.173	.313

a. Dependent Variable: Outcome variable: final grade

Multi-Way Fixed Effects Regression
School, sex, address, higher education, and internet fixed e

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions	
					First period grade	Second period grade
1	1	11.844	1.000	.00	.00	.00
	2	1.024	3.400	.00	.00	.00
	3	.809	3.827	.00	.00	.00
	4	.590	4.482	.00	.00	.00
	5	.508	4.827	.00	.00	.00
	6	.259	6.756	.00	.00	.00
	7	.231	7.159	.00	.00	.00
	8	.193	7.842	.00	.00	.00
	9	.146	8.993	.00	.00	.00
	10	.133	9.425	.00	.00	.00
	11	.096	11.082	.00	.01	.02
	12	.071	12.945	.00	.03	.04
	13	.060	14.098	.00	.00	.00
	14	.025	21.605	.04	.03	.04
	15	.008	39.284	.00	.87	.88
	16	.002	76.944	.95	.04	.02

Multi-Way Fixed Effects Regression
School, sex, address, higher education, and internet fixed e

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions				
		Weekly study time group	Number of past class failures	School absences	Student age	Mother education
1	1	.00	.00	.00	.00	.00
	2	.00	.44	.01	.00	.00
	3	.00	.08	.17	.00	.00
	4	.00	.00	.23	.00	.00
	5	.01	.24	.47	.00	.00
	6	.02	.00	.00	.00	.01
	7	.01	.02	.00	.00	.08
	8	.00	.00	.01	.00	.03
	9	.07	.01	.00	.00	.01
	10	.48	.01	.03	.00	.00
	11	.32	.05	.00	.00	.01
	12	.03	.00	.00	.00	.00
	13	.00	.00	.00	.00	.86
	14	.04	.13	.07	.08	.00
	15	.00	.00	.00	.00	.00
	16	.00	.03	.00	.92	.00

Multi-Way Fixed Effects Regression
School, sex, address, higher education, and internet fixed e

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions				
		Father education	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
1	1	.00	.00	.00	.00	.00
	2	.00	.00	.00	.07	.00
	3	.00	.01	.00	.29	.03
	4	.00	.00	.00	.00	.64
	5	.00	.00	.00	.10	.15
	6	.01	.15	.01	.33	.00
	7	.11	.03	.01	.00	.01
	8	.08	.01	.01	.00	.00
	9	.00	.07	.75	.00	.04
	10	.03	.42	.00	.03	.09
	11	.04	.13	.06	.00	.00
	12	.00	.02	.00	.00	.00
	13	.71	.01	.01	.00	.01
	14	.00	.14	.14	.16	.01
	15	.00	.00	.01	.00	.00
	16	.00	.01	.01	.00	.01

Multi-Way Fixed Effects Regression
School, sex, address, higher education, and internet fixed e

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions		
		Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes
1	1	.00	.00	.00
	2	.01	.00	.00
	3	.01	.00	.00
	4	.00	.00	.00
	5	.02	.00	.00
	6	.36	.00	.02
	7	.35	.00	.09
	8	.00	.00	.80
	9	.02	.00	.01
	10	.09	.00	.00
	11	.05	.29	.01
	12	.02	.64	.02
	13	.00	.00	.01
	14	.05	.01	.03
	15	.00	.00	.00
	16	.00	.05	.00

a. Dependent Variable: Outcome variable: final grade

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-.15	19.43	11.91	2.986	649
Residual	-8.984	5.189	.000	1.234	649
Std. Predicted Value	-4.037	2.520	.000	1.000	649
Std. Residual	-7.196	4.157	.000	.988	649

a. Dependent Variable: Outcome variable: final grade

Fixed Effects GLM Type III Tests

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Univariate Analysis of Variance

Between-Subjects Factors

		N
school	GP	423
	MS	226
sex	F	383
	M	266
address	R	197
	U	452
higher	no	69
	yes	580
internet	no	151
	yes	498

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	internet	Mean	Std. Deviation	N
GP	F	R	no	yes	10.50	1.000	4
				Total	10.50	1.000	4
			yes	no	13.73	2.796	11
				yes	12.35	2.652	26
				Total	12.76	2.733	37
			Total	no	13.73	2.796	11
				yes	12.10	2.564	30
				Total	12.54	2.693	41
		U	no	no	11.00	.000	2
				yes	9.50	1.643	6
				Total	9.88	1.553	8
			yes	no	12.31	1.775	29
				yes	13.41	2.214	159
				Total	13.24	2.184	188

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	internet	Mean	Std. Deviation	N
		Total	no	no	12.23	1.746	31
				yes	13.27	2.312	165
				Total	13.10	2.260	196
			yes	no	11.00	.000	2
				yes	9.90	1.449	10
				Total	10.08	1.379	12
		Total	no	no	12.70	2.163	40
				yes	13.26	2.303	185
				Total	13.16	2.284	225
		Total	no	no	12.62	2.141	42
				yes	13.09	2.383	195
				Total	13.00	2.344	237
	M	R	no	no	9.00	1.414	2
				yes	9.50	.707	2
				Total	9.25	.957	4
			yes	no	11.18	2.523	11
				yes	12.41	2.364	22
				Total	12.00	2.449	33
		Total	no	no	10.85	2.478	13
				yes	12.17	2.408	24
				Total	11.70	2.482	37
		U	no	no	8.00	.	1
				yes	8.33	3.086	15
				Total	8.31	2.983	16
			yes	no	12.18	2.676	11
				yes	12.61	2.605	122
				Total	12.57	2.603	133
		Total	no	no	11.83	2.823	12
				yes	12.14	2.968	137
				Total	12.11	2.949	149

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	internet	Mean	Std. Deviation	N
	Total	no	no		8.67	1.155	3
				yes	8.47	2.918	17
				Total	8.50	2.705	20
		yes	no		11.68	2.589	22
				yes	12.58	2.563	144
				Total	12.46	2.576	166
		Total	no		11.32	2.641	25
				yes	12.14	2.885	161
				Total	12.03	2.861	186
	Total	R	no		9.00	1.414	2
				yes	10.17	.983	6
				Total	9.88	1.126	8
		yes	no		12.45	2.907	22
				yes	12.38	2.498	48
				Total	12.40	2.612	70
		Total	no		12.17	2.959	24
				yes	12.13	2.473	54
				Total	12.14	2.612	78
	U	no	no		10.00	1.732	3
				yes	8.67	2.763	21
				Total	8.83	2.665	24
		yes	no		12.28	2.025	40
				yes	13.06	2.420	281
				Total	12.96	2.386	321
		Total	no		12.12	2.073	43
				yes	12.75	2.685	302
				Total	12.68	2.622	345
	Total	no	no		9.60	1.517	5
				yes	9.00	2.542	27
				Total	9.09	2.401	32

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	internet	Mean	Std. Deviation	N
			yes	no	12.34	2.354	62
				yes	12.96	2.440	329
				Total	12.86	2.434	391
			Total	no	12.13	2.405	67
				yes	12.66	2.660	356
				Total	12.58	2.626	423
				no	7.83	3.971	6
				yes	7.83	4.070	6
				Total	7.83	3.834	12
MS	F	R		no	12.00	3.904	22
				yes	11.40	3.664	45
				Total	11.60	3.726	67
			Total	no	11.11	4.219	28
				yes	10.98	3.850	51
				Total	11.03	3.958	79
			U	no	8.38	3.739	8
				yes	11.33	1.528	3
				Total	9.18	3.488	11
				no	10.55	2.665	20
				yes	11.89	3.904	36
				Total	11.41	3.546	56
			Total	no	9.93	3.102	28
				yes	11.85	3.766	39
				Total	11.04	3.607	67
			Total	no	8.14	3.697	14
				yes	9.00	3.742	9
				Total	8.48	3.654	23
				no	11.31	3.411	42
				yes	11.62	3.757	81
				Total	11.51	3.631	123

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	internet	Mean	Std. Deviation	N		
	M	R	Total	no	10.52	3.717	56		
				yes	11.36	3.817	90		
				Total	11.03	3.788	146		
			no	no	11.00	2.646	3		
				yes	7.80	4.382	5		
				Total	9.00	3.964	8		
			yes	no	9.00	4.163	13		
				yes	9.32	3.683	19		
				Total	9.19	3.822	32		
			Total	no	9.38	3.931	16		
				yes	9.00	3.788	24		
				Total	9.15	3.800	40		
			U	no	yes	8.17	1.472	6	
					Total	8.17	1.472	6	
				yes	no	9.42	4.641	12	
					yes	12.18	3.065	22	
					Total	11.21	3.867	34	
				Total	no	9.42	4.641	12	
					yes	11.32	3.244	28	
					Total	10.75	3.760	40	
				Total	no	no	11.00	2.646	3
			yes			8.00	2.966	11	
			Total			8.64	3.079	14	
			yes		no	9.20	4.311	25	
					yes	10.85	3.623	41	
					Total	10.23	3.949	66	
			Total		no	9.39	4.166	28	
					yes	10.25	3.662	52	
					Total	9.95	3.841	80	
			Total	R	no	no	8.89	3.756	9
						yes	7.82	3.995	11
						Total	8.30	3.827	20

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	internet	Mean	Std. Deviation	N
			yes	no	10.89	4.206	35
				yes	10.78	3.765	64
				Total	10.82	3.905	99
			Total	no	10.48	4.157	44
				yes	10.35	3.916	75
				Total	10.39	3.990	119
		U	no	no	8.38	3.739	8
				yes	9.22	2.108	9
				Total	8.82	2.921	17
			yes	no	10.12	3.508	32
				yes	12.00	3.584	58
				Total	11.33	3.650	90
			Total	no	9.78	3.577	40
				yes	11.63	3.541	67
				Total	10.93	3.650	107
		Total	no	no	8.65	3.639	17
				yes	8.45	3.284	20
				Total	8.54	3.404	37
			yes	no	10.52	3.878	67
				yes	11.36	3.715	122
				Total	11.06	3.785	189
			Total	no	10.14	3.884	84
				yes	10.95	3.786	142
				Total	10.65	3.834	226
Total	F	R	no	no	7.83	3.971	6
				yes	8.90	3.381	10
				Total	8.50	3.521	16
			yes	no	12.58	3.623	33
				yes	11.75	3.341	71
				Total	12.01	3.437	104

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	internet	Mean	Std. Deviation	N
		U	Total	no	11.85	4.017	39
				yes	11.40	3.456	81
				Total	11.54	3.637	120
			no	no	8.90	3.479	10
				yes	10.11	1.764	9
				Total	9.47	2.796	19
			yes	no	11.59	2.327	49
				yes	13.13	2.663	195
				Total	12.82	2.667	244
		Total	no	11.14	2.719	59	
			yes	13.00	2.699	204	
			Total	12.58	2.808	263	
		Total	no	no	8.50	3.578	16
				yes	9.47	2.736	19
				Total	9.03	3.139	35
			yes	no	11.99	2.938	82
				yes	12.76	2.918	266
				Total	12.58	2.937	348
			Total	no	11.42	3.296	98
				yes	12.54	3.016	285
				Total	12.25	3.124	383
	M	R	no	no	10.20	2.280	5
				yes	8.29	3.684	7
				Total	9.08	3.204	12
			yes	no	10.00	3.612	24
				yes	10.98	3.387	41
				Total	10.62	3.476	65
			Total	no	10.03	3.386	29
				yes	10.58	3.524	48
				Total	10.38	3.460	77

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	internet	Mean	Std. Deviation	N
		U	no	no	8.00	.	1
				yes	8.29	2.686	21
				Total	8.27	2.622	22
			yes	no	10.74	4.002	23
				yes	12.54	2.673	144
				Total	12.29	2.944	167
			Total	no	10.62	3.954	24
				yes	12.00	3.022	165
				Total	11.83	3.177	189
		Total	no	no	9.83	2.229	6
				yes	8.29	2.891	28
				Total	8.56	2.820	34
			yes	no	10.36	3.785	47
				yes	12.19	2.911	185
				Total	11.82	3.185	232
			Total	no	10.30	3.630	53
				yes	11.68	3.189	213
				Total	11.41	3.321	266
	Total	R	no	no	8.91	3.390	11
				yes	8.65	3.408	17
				Total	8.75	3.340	28
			yes	no	11.49	3.808	57
				yes	11.46	3.364	112
				Total	11.47	3.509	169
			Total	no	11.07	3.841	68
				yes	11.09	3.490	129
				Total	11.09	3.605	197
		U	no	no	8.82	3.311	11
				yes	8.83	2.561	30
				Total	8.83	2.738	41

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	internet	Mean	Std. Deviation	N
		yes	yes	no	11.32	2.964	72
				yes	12.88	2.679	339
				Total	12.61	2.791	411
		Total	no	no	10.99	3.110	83
				yes	12.55	2.887	369
				Total	12.26	2.988	452
	Total	no	no	no	8.86	3.270	22
				yes	8.77	2.861	47
				Total	8.80	2.973	69
		yes	no	no	11.40	3.350	129
				yes	12.53	2.925	451
				Total	12.28	3.058	580
		Total	no	no	11.03	3.447	151
				yes	12.17	3.117	498
				Total	11.91	3.231	649

Levene's Test of Equality of Error Variances^a

Dependent Variable: Outcome variable: final grade

F	df1	df2	Sig.
1.354	29	619	.104

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

- a. Design: Intercept + G1 + G2 + studytime + failures + absences + age + Medu + Fedu + traveltime + health + school + sex + address + higher + internet

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Tests of Between-Subjects Effects

Dependent Variable: Outcome variable: final grade

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	5776.701 ^a	15	385.113	247.096	.000	.854
Intercept	.724	1	.724	.464	.496	.001
G1	20.286	1	20.286	13.016	.000	.020
G2	1012.607	1	1012.607	649.709	.000	.507
studytime	1.148	1	1.148	.737	.391	.001
failures	8.130	1	8.130	5.216	.023	.008
absences	3.295	1	3.295	2.114	.146	.003
age	.783	1	.783	.502	.479	.001
Medu	.962	1	.962	.617	.432	.001
Fedu	.313	1	.313	.201	.654	.000
traveltime	6.069	1	6.069	3.894	.049	.006
health	3.052	1	3.052	1.958	.162	.003
school	4.524	1	4.524	2.903	.089	.005
sex	5.103	1	5.103	3.274	.071	.005
address	2.941	1	2.941	1.887	.170	.003
higher	1.734	1	1.734	1.113	.292	.002
internet	.497	1	.497	.319	.573	.001
Error	986.565	633	1.559			
Total	98761.000	649				
Corrected Total	6763.267	648				

a. R Squared = .854 (Adjusted R Squared = .851)

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Parameter Estimates

Dependent Variable: Outcome variable: final grade

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	-.540	.809	-.667	.505	-2.129	1.050
G1	.133	.037	3.608	.000	.061	.205
G2	.876	.034	25.489	.000	.808	.943
studytime	.055	.064	.858	.391	-.070	.179
failures	-.219	.096	-2.284	.023	-.407	-.031
absences	.016	.011	1.454	.146	-.006	.038
age	.031	.044	.709	.479	-.056	.118
Medu	-.047	.060	-.786	.432	-.165	.071
Fedu	.027	.059	.448	.654	-.090	.143
traveltime	.143	.073	1.973	.049	.001	.286
health	-.049	.035	-1.399	.162	-.117	.020
[school=GP]	.206	.121	1.704	.089	-.031	.443
[school=MS]	0 ^a	.	.	.	.	.
[sex=F]	.191	.106	1.809	.071	-.016	.398
[sex=M]	0 ^a	.	.	.	.	.
[address=R]	-.164	.119	-1.374	.170	-.398	.070
[address=U]	0 ^a	.	.	.	.	.
[higher=no]	-.189	.179	-1.055	.292	-.541	.163
[higher=yes]	0 ^a	.	.	.	.	.
[internet=no]	-.070	.124	-.565	.573	-.313	.173
[internet=yes]	0 ^a	.	.	.	.	.

Fixed Effects GLM Type III Tests
Categorical fixed effects tested as factors

Parameter Estimates

Dependent Variable: Outcome variable: final grade

Parameter	Partial Eta Squared
Intercept	.001
G1	.020
G2	.507
studytime	.001
failures	.008
absences	.003
age	.001
Medu	.001
Fedu	.000
traveltime	.006
health	.003
[school=GP]	.005
[school=MS]	.
[sex=F]	.005
[sex=M]	.
[address=R]	.003
[address=U]	.
[higher=no]	.002
[higher=yes]	.
[internet=no]	.001
[internet=yes]	.

a. This parameter is set to zero because it is redundant.

Fixed Effects Estimated Marginal Means

Fixed Effects Estimated Marginal Means
Adjusted outcome means by selected fixed effects

Univariate Analysis of Variance

Between-Subjects Factors

		N
school	GP	423
	MS	226
sex	F	383
	M	266
address	R	197
	U	452
higher	no	69
	yes	580

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	Mean	Std. Deviation	N
GP	F	R	no	10.50	1.000	4
			yes	12.76	2.733	37
			Total	12.54	2.693	41
		U	no	9.88	1.553	8
			yes	13.24	2.184	188
			Total	13.10	2.260	196
		Total	no	10.08	1.379	12
			yes	13.16	2.284	225
			Total	13.00	2.344	237
	M	R	no	9.25	.957	4
			yes	12.00	2.449	33
			Total	11.70	2.482	37
		U	no	8.31	2.983	16
			yes	12.57	2.603	133
			Total	12.11	2.949	149
		Total	no	8.50	2.705	20
			yes	12.46	2.576	166
			Total	12.03	2.861	186

Fixed Effects Estimated Marginal Means
Adjusted outcome means by selected fixed effects

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	Mean	Std. Deviation	N
	Total	R	no	9.88	1.126	8
			yes	12.40	2.612	70
			Total	12.14	2.612	78
		U	no	8.83	2.665	24
			yes	12.96	2.386	321
			Total	12.68	2.622	345
		Total	no	9.09	2.401	32
			yes	12.86	2.434	391
			Total	12.58	2.626	423
	MS	F	no	7.83	3.834	12
			yes	11.60	3.726	67
			Total	11.03	3.958	79
		U	no	9.18	3.488	11
			yes	11.41	3.546	56
			Total	11.04	3.607	67
		Total	no	8.48	3.654	23
			yes	11.51	3.631	123
			Total	11.03	3.788	146
		M	no	9.00	3.964	8
			yes	9.19	3.822	32
			Total	9.15	3.800	40
		U	no	8.17	1.472	6
			yes	11.21	3.867	34
			Total	10.75	3.760	40
		Total	no	8.64	3.079	14
			yes	10.23	3.949	66
			Total	9.95	3.841	80
	Total	R	no	8.30	3.827	20
			yes	10.82	3.905	99
			Total	10.39	3.990	119

Fixed Effects Estimated Marginal Means
Adjusted outcome means by selected fixed effects

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	Mean	Std. Deviation	N
		U	no	8.82	2.921	17
			yes	11.33	3.650	90
			Total	10.93	3.650	107
		Total	no	8.54	3.404	37
			yes	11.06	3.785	189
			Total	10.65	3.834	226
		R	no	8.50	3.521	16
			yes	12.01	3.437	104
			Total	11.54	3.637	120
Total	F	U	no	9.47	2.796	19
			yes	12.82	2.667	244
			Total	12.58	2.808	263
		Total	no	9.03	3.139	35
			yes	12.58	2.937	348
			Total	12.25	3.124	383
		M	no	9.08	3.204	12
			yes	10.62	3.476	65
			Total	10.38	3.460	77
	M	U	no	8.27	2.622	22
			yes	12.29	2.944	167
			Total	11.83	3.177	189
		Total	no	8.56	2.820	34
			yes	11.82	3.185	232
			Total	11.41	3.321	266
	Total	R	no	8.75	3.340	28
			yes	11.47	3.509	169
			Total	11.09	3.605	197
		U	no	8.83	2.738	41
			yes	12.61	2.791	411
			Total	12.26	2.988	452

Fixed Effects Estimated Marginal Means
Adjusted outcome means by selected fixed effects

Descriptive Statistics

Dependent Variable: Outcome variable: final grade

school	sex	address	higher	Mean	Std. Deviation	N
Total			no	8.80	2.973	69
			yes	12.28	3.058	580
			Total	11.91	3.231	649

Tests of Between-Subjects Effects

Dependent Variable: Outcome variable: final grade

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	5776.205 ^a	14	412.586	265.008	.000
Intercept	.773	1	.773	.496	.481
G1	20.304	1	20.304	13.041	.000
G2	1013.711	1	1013.711	651.117	.000
studytime	1.130	1	1.130	.726	.394
failures	8.340	1	8.340	5.357	.021
absences	3.405	1	3.405	2.187	.140
age	.868	1	.868	.558	.455
Medu	.792	1	.792	.509	.476
Fedu	.312	1	.312	.200	.655
traveltime	5.826	1	5.826	3.742	.053
health	3.152	1	3.152	2.024	.155
school	4.979	1	4.979	3.198	.074
sex	4.963	1	4.963	3.187	.075
address	3.071	1	3.071	1.972	.161
higher	1.738	1	1.738	1.116	.291
Error	987.062	634	1.557		
Total	98761.000	649			
Corrected Total	6763.267	648			

a. R Squared = .854 (Adjusted R Squared = .851)

Fixed Effects Estimated Marginal Means
Adjusted outcome means by selected fixed effects

Parameter Estimates

Dependent Variable: Outcome variable: final grade

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	-.594	.803	-.739	.460	-2.171	.984
G1	.133	.037	3.611	.000	.061	.205
G2	.876	.034	25.517	.000	.809	.943
studytime	.054	.063	.852	.394	-.071	.179
failures	-.221	.096	-2.314	.021	-.409	-.034
absences	.017	.011	1.479	.140	-.005	.039
age	.033	.044	.747	.455	-.054	.120
Medu	-.042	.059	-.713	.476	-.159	.074
Fedu	.026	.059	.448	.655	-.090	.143
traveltime	.140	.072	1.934	.053	-.002	.282
health	-.049	.035	-1.423	.155	-.117	.019
[school=GP]	.214	.120	1.788	.074	-.021	.450
[school=MS]	0 ^a	.	.	.	.	.
[sex=F]	.188	.105	1.785	.075	-.019	.395
[sex=M]	0 ^a	.	.	.	.	.
[address=R]	-.167	.119	-1.404	.161	-.401	.067
[address=U]	0 ^a	.	.	.	.	.
[higher=no]	-.189	.179	-1.057	.291	-.541	.162
[higher=yes]	0 ^a	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

Estimated Marginal Means

1. school

Fixed Effects Estimated Marginal Means
Adjusted outcome means by selected fixed effects

Estimates

Dependent Variable: Outcome variable: final grade

school	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
GP	11.856 ^a	.101	11.658	12.054
MS	11.642 ^a	.115	11.417	11.867

a. Covariates appearing in the model are evaluated at the following values: First period grade = 11.40, Second period grade = 11.57, Weekly study time group = 1.93, Number of past class failures = .22, School absences = 3.66, Student age = 16.74, Mother education = 2.51, Father education = 2.31, Home to school travel time = 1.57, Current health status = 3.54.

Pairwise Comparisons

Dependent Variable: Outcome variable: final grade

(I) school	(J) school	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
GP	MS	.214	.120	.074	-.021	.450
MS	GP	-.214	.120	.074	-.450	.021

Based on estimated marginal means

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests

Dependent Variable: Outcome variable: final grade

	Sum of Squares	df	Mean Square	F	Sig.
Contrast	4.979	1	4.979	3.198	.074
Error	987.062	634	1.557		

The F tests the effect of school. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

2. sex

Fixed Effects Estimated Marginal Means
Adjusted outcome means by selected fixed effects

Estimates

Dependent Variable: Outcome variable: final grade

sex	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
F	11.843 ^a	.099	11.648	12.038
M	11.655 ^a	.109	11.442	11.868

a. Covariates appearing in the model are evaluated at the following values: First period grade = 11.40, Second period grade = 11.57, Weekly study time group = 1.93, Number of past class failures = .22, School absences = 3.66, Student age = 16.74, Mother education = 2.51, Father education = 2.31, Home to school travel time = 1.57, Current health status = 3.54.

Pairwise Comparisons

Dependent Variable: Outcome variable: final grade

(I) sex	(J) sex	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
F	M	.188	.105	.075	-.019	.395
M	F	-.188	.105	.075	-.395	.019

Based on estimated marginal means

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests

Dependent Variable: Outcome variable: final grade

	Sum of Squares	df	Mean Square	F	Sig.
Contrast	4.963	1	4.963	3.187	.075
Error	987.062	634	1.557		

The F tests the effect of sex. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

3. address

Fixed Effects Estimated Marginal Means
Adjusted outcome means by selected fixed effects

Estimates

Dependent Variable: Outcome variable: final grade

address	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
R	11.665 ^a	.117	11.435	11.896
U	11.833 ^a	.097	11.642	12.023

a. Covariates appearing in the model are evaluated at the following values: First period grade = 11.40, Second period grade = 11.57, Weekly study time group = 1.93, Number of past class failures = .22, School absences = 3.66, Student age = 16.74, Mother education = 2.51, Father education = 2.31, Home to school travel time = 1.57, Current health status = 3.54.

Pairwise Comparisons

Dependent Variable: Outcome variable: final grade

(I) address	(J) address	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
R	U	-.167	.119	.161	-.401	.067
U	R	.167	.119	.161	-.067	.401

Based on estimated marginal means

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests

Dependent Variable: Outcome variable: final grade

	Sum of Squares	df	Mean Square	F	Sig.
Contrast	3.071	1	3.071	1.972	.161
Error	987.062	634	1.557		

The F tests the effect of address. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

Fixed Effects Residual Diagnostics

Fixed Effects Residual Diagnostics
Residual distribution and fitted-value diagnostic charts

Explore

school

Case Processing Summary

	school	Valid		Cases Missing		Total	
		N	Percent	N	Percent	N	Percent
Unstandardized Residual	GP	423	100.0%	0	0.0%	423	100.0%
	MS	226	100.0%	0	0.0%	226	100.0%

Descriptives

school		Statistic	
Unstandardized Residual	GP	Mean	.0000000
		95% Confidence Interval for Mean	
		Lower Bound	-.1029977
		Upper Bound	.1029977
		5% Trimmed Mean	.0133021
		Median	-.1163535
		Variance	1.161
		Std. Deviation	1.07771130
		Minimum	-8.98396
		Maximum	5.18945
		Range	14.17341
		Interquartile Range	1.09798
		Skewness	-2.306
		Kurtosis	22.769
	MS	Mean	.0000000
		95% Confidence Interval for Mean	
		Lower Bound	-.1947033
		Upper Bound	.1947033
		5% Trimmed Mean	.1774381
		Median	.1444358
		Variance	2.206
		Std. Deviation	1.48537816
		Minimum	-8.12863
		Maximum	2.21404

Fixed Effects Residual Diagnostics
Residual distribution and fitted-value diagnostic charts

Descriptives

school			Std. Error
Unstandardized Residual	GP	Mean	.05240012
		95% Confidence Interval for Mean	Lower Bound
			Upper Bound
		5% Trimmed Mean	
		Median	
		Variance	
		Std. Deviation	
		Minimum	
		Maximum	
		Range	
		Interquartile Range	
		Skewness	.119
		Kurtosis	.237
	MS	Mean	.09880589
		95% Confidence Interval for Mean	Lower Bound
			Upper Bound
		5% Trimmed Mean	
		Median	
		Variance	
		Std. Deviation	
		Minimum	
		Maximum	

Descriptives

school		Statistic
	Range	10.34267
	Interquartile Range	1.10668
	Skewness	-3.123
	Kurtosis	13.036

Fixed Effects Residual Diagnostics
Residual distribution and fitted-value diagnostic charts

Descriptives

school		Std. Error
	Range	
	Interquartile Range	
	Skewness	.162
	Kurtosis	.322

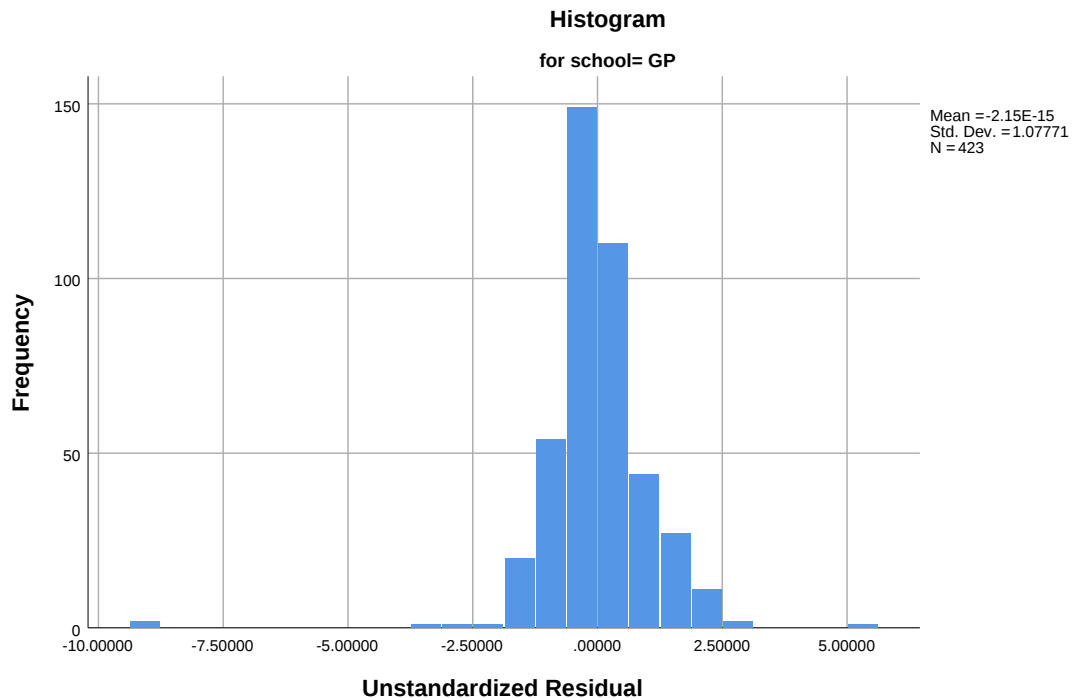
Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	GP	.122	423	.000	.810	423	.000
	MS	.172	226	.000	.698	226	.000

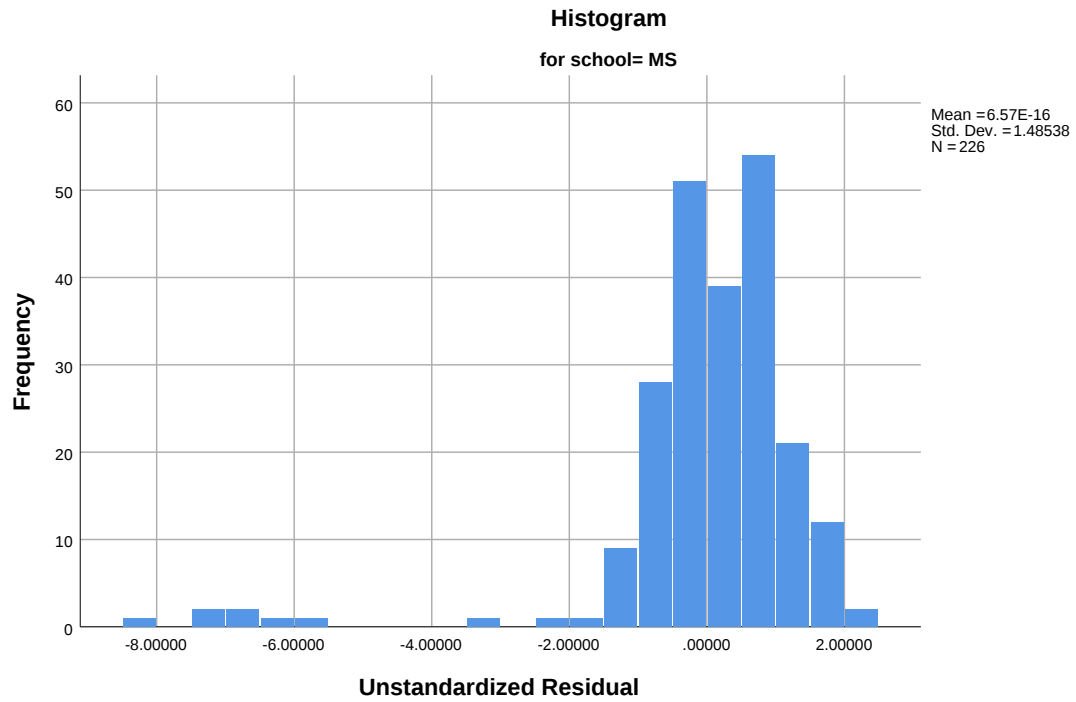
a. Lilliefors Significance Correction

Unstandardized Residual

Histograms

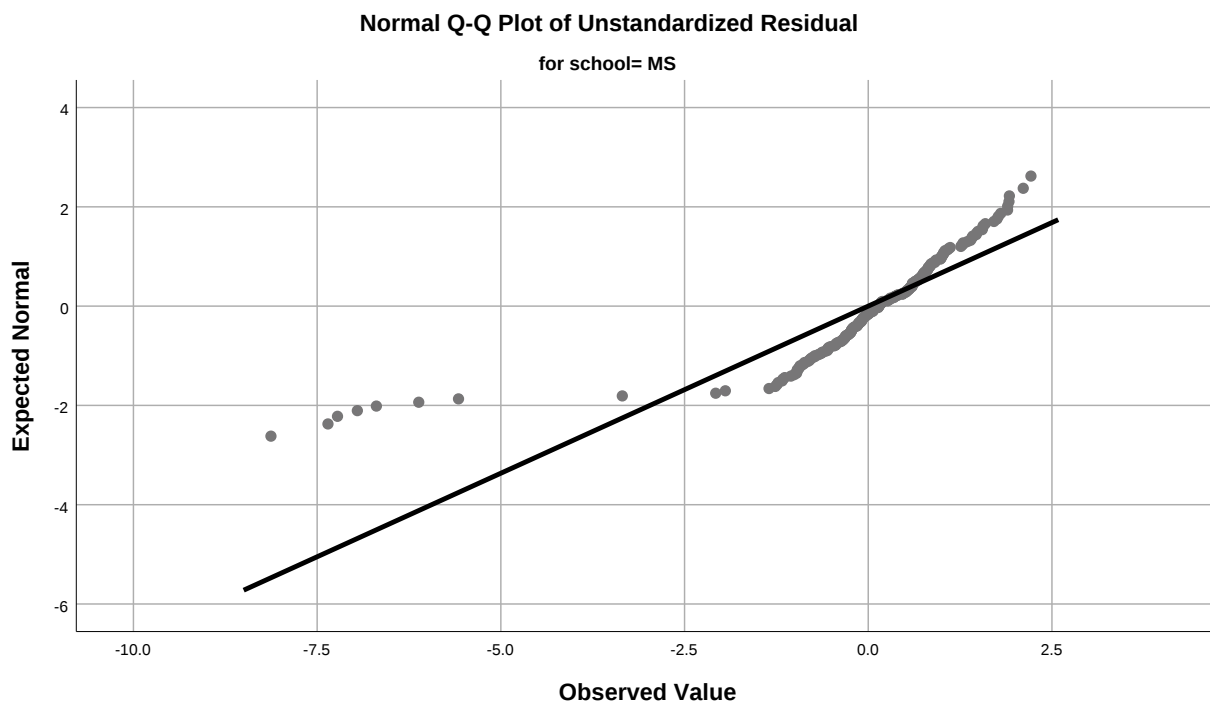
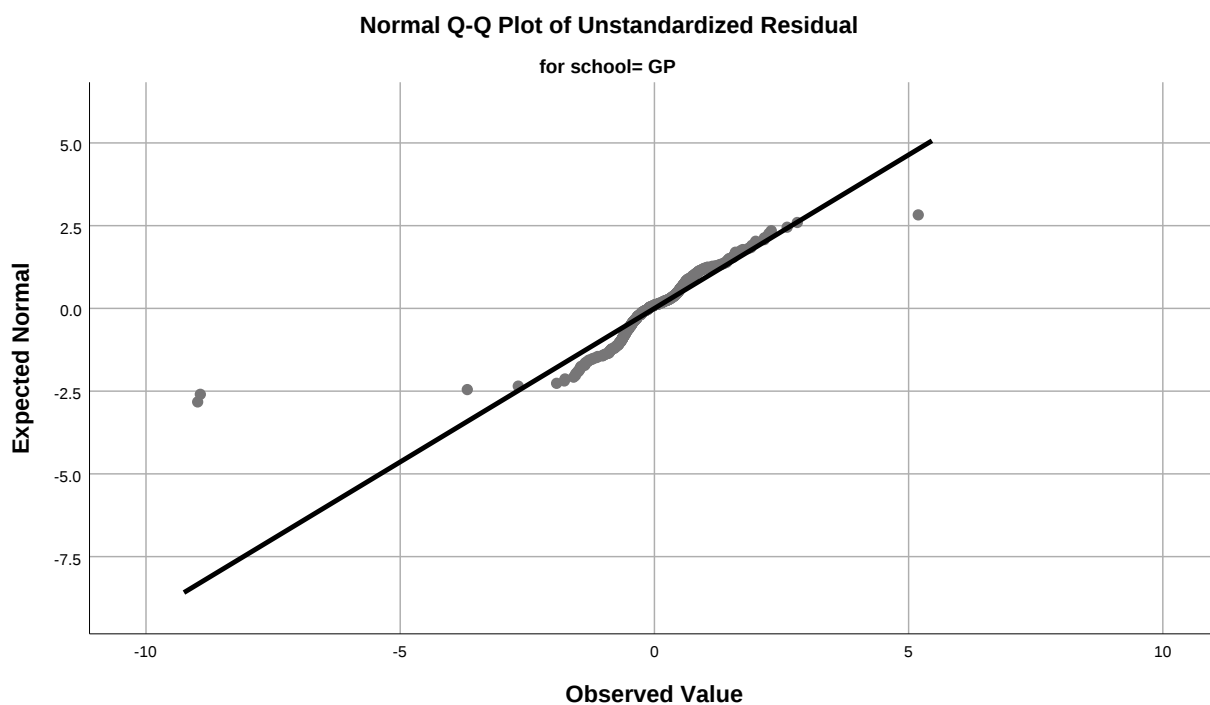


Fixed Effects Residual Diagnostics
Residual distribution and fitted-value diagnostic charts



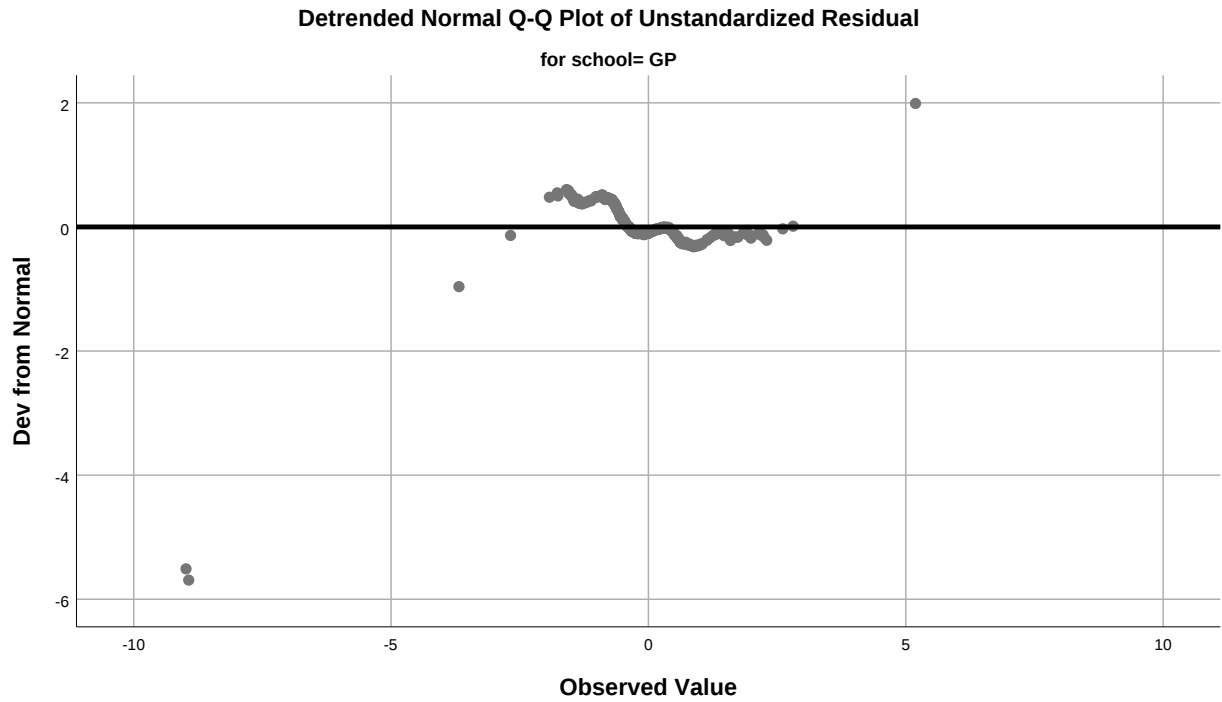
Normal Q-Q Plots

Fixed Effects Residual Diagnostics
Residual distribution and fitted-value diagnostic charts

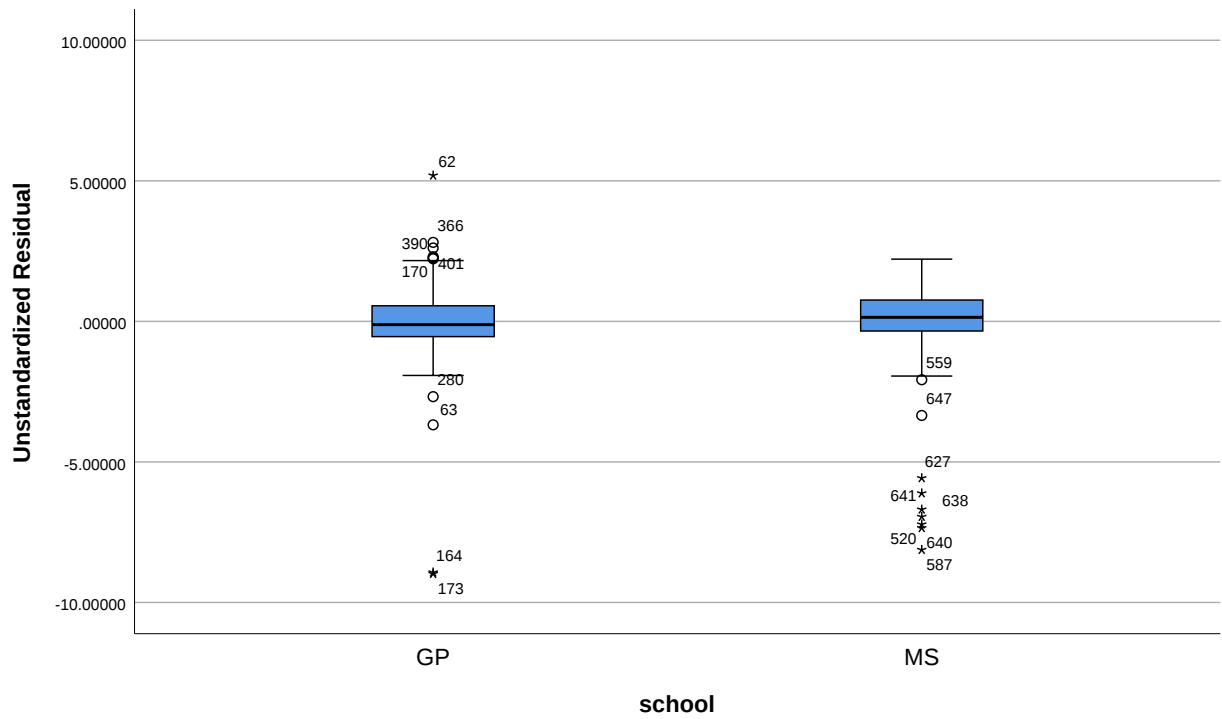
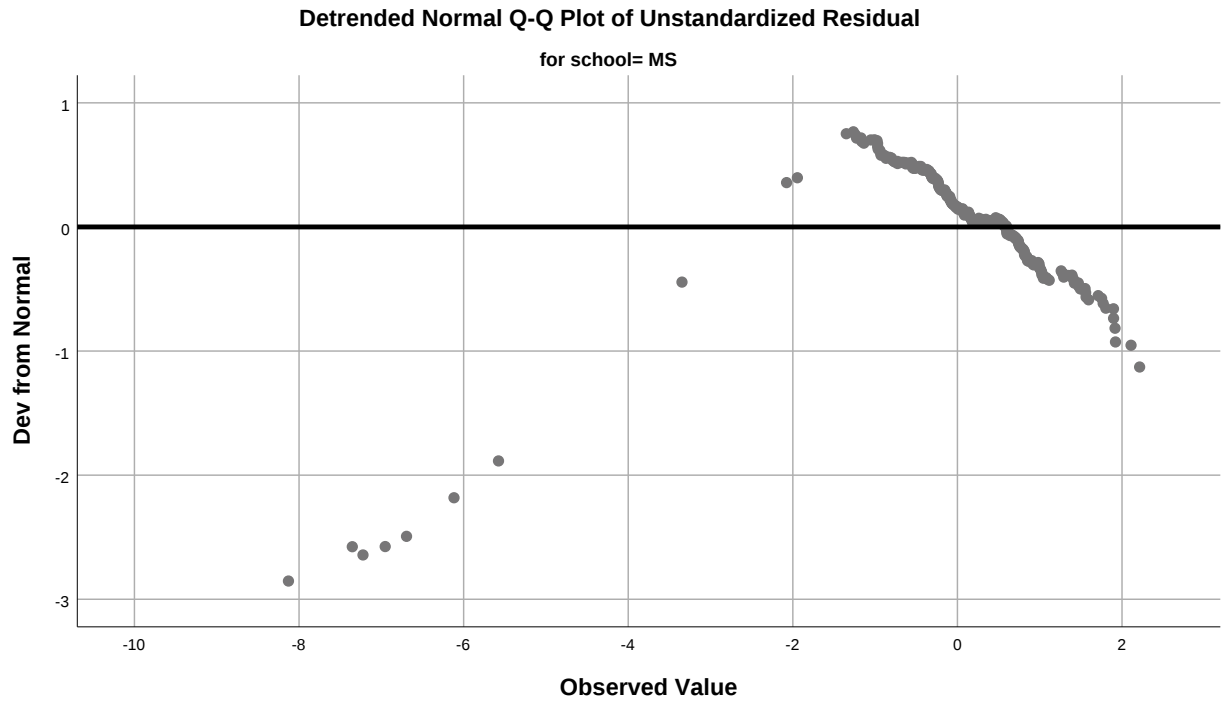


Fixed Effects Residual Diagnostics
Residual distribution and fitted-value diagnostic charts

Detrended Normal Q-Q Plots

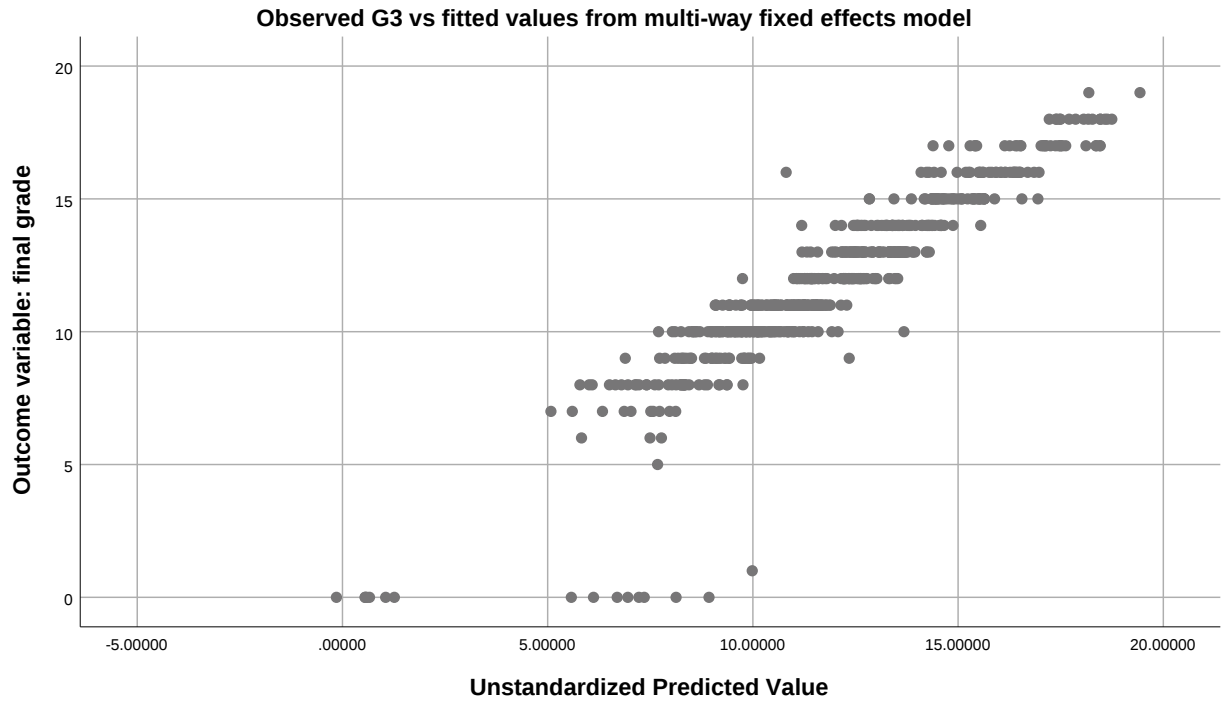


Fixed Effects Residual Diagnostics
Residual distribution and fitted-value diagnostic charts



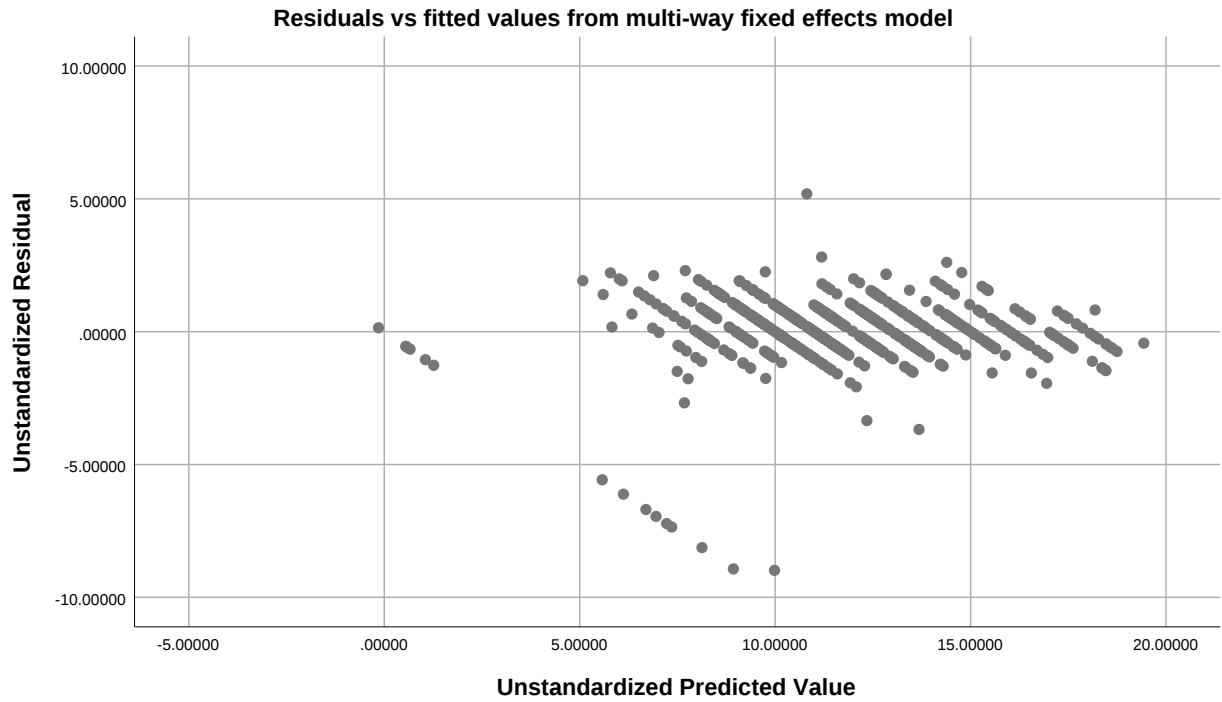
Fixed Effects Residual Diagnostics
Residual distribution and fitted-value diagnostic charts

Graph



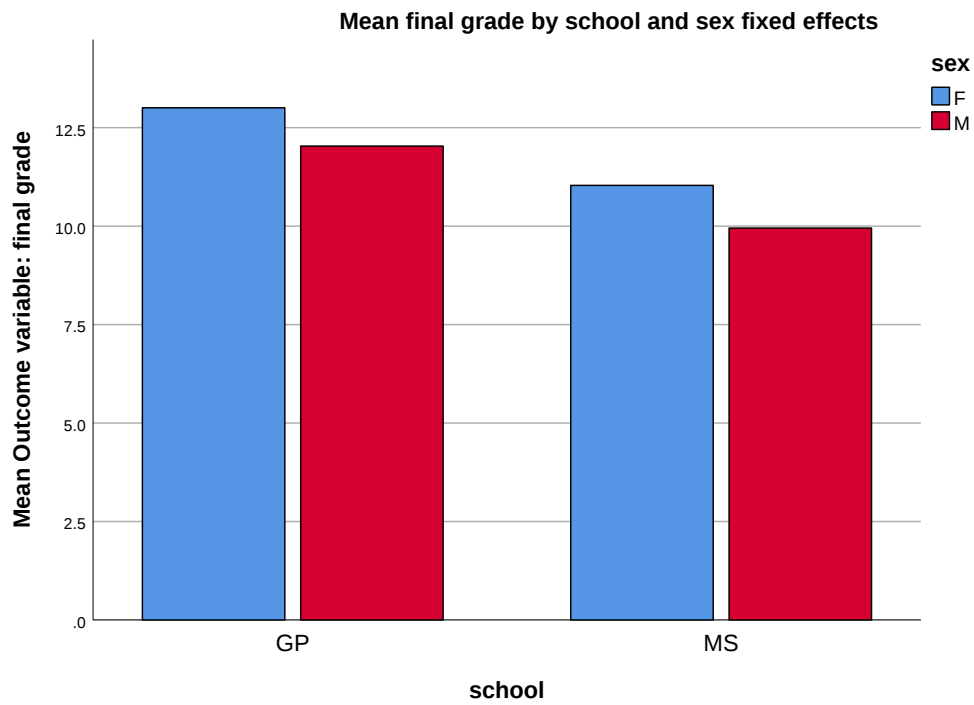
Graph

Fixed Effects Residual Diagnostics
Residual distribution and fitted-value diagnostic charts



Graph

Fixed Effects Residual Diagnostics
Residual distribution and fitted-value diagnostic charts



Fixed Effects Reporting Guide
Model interpretation notes

Summarize

Case Processing Summary

	Included		Cases Excluded		Total	
	N	Percent	N	Percent	N	Percent
Outcome variable: final grade	649	100.0%	0	0.0%	649	100.0%
First period grade	649	100.0%	0	0.0%	649	100.0%
Second period grade	649	100.0%	0	0.0%	649	100.0%
Weekly study time group	649	100.0%	0	0.0%	649	100.0%
Number of past class failures	649	100.0%	0	0.0%	649	100.0%
School absences	649	100.0%	0	0.0%	649	100.0%
Student age	649	100.0%	0	0.0%	649	100.0%
Mother education	649	100.0%	0	0.0%	649	100.0%
Father education	649	100.0%	0	0.0%	649	100.0%
Home to school travel time	649	100.0%	0	0.0%	649	100.0%
Current health status	649	100.0%	0	0.0%	649	100.0%
School fixed effect dummy: 1 = MS, 0 = GP	649	100.0%	0	0.0%	649	100.0%
Sex fixed effect dummy: 1 = male, 0 = female	649	100.0%	0	0.0%	649	100.0%
Address fixed effect dummy: 1 = urban, 0 = rural	649	100.0%	0	0.0%	649	100.0%
Higher education intention fixed effect dummy: yes	649	100.0%	0	0.0%	649	100.0%
Internet access fixed effect dummy: yes	649	100.0%	0	0.0%	649	100.0%
Unstandardized Predicted Value	649	100.0%	0	0.0%	649	100.0%
Unstandardized Residual	649	100.0%	0	0.0%	649	100.0%

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
1	11	0	11	2
2	11	9	11	2
3	12	12	13	2
4	14	14	14	3
5	13	11	13	2
6	13	12	12	2
7	13	13	12	2
8	13	10	13	2
9	17	15	16	2
10	13	12	12	2
11	14	14	14	2
12	13	10	12	3
13	12	12	13	1
14	13	12	12	2
15	15	14	14	3
16	17	17	17	1
17	14	13	13	3
18	14	13	14	2
19	7	8	8	1
20	12	12	12	1
21	14	12	13	2
22	12	11	12	1
23	14	12	13	2
24	10	10	10	2
25	10	10	11	3
26	12	10	11	1
27	12	11	12	1
28	11	11	11	1
29	13	12	12	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
1	0	4	18	4	4
2	0	2	17	1	1
3	0	6	15	1	1
4	0	0	15	4	2
5	0	0	16	3	3
6	0	6	16	4	3
7	0	0	16	2	2
8	0	2	17	4	4
9	0	0	15	3	2
10	0	0	15	3	4
11	0	2	15	4	4
12	0	0	15	2	1
13	0	0	15	4	4
14	0	0	15	4	3
15	0	0	15	2	2
16	0	6	16	4	4
17	0	10	16	4	4
18	0	2	16	3	3
19	3	2	17	3	2
20	0	6	16	4	3
21	0	0	15	4	3
22	0	0	15	4	4
23	0	0	16	4	2
24	0	2	16	2	2
25	0	2	15	2	4
26	0	6	16	2	2
27	0	8	15	2	2
28	0	0	15	4	2
29	0	2	16	3	4

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
1	2	3	No / reference	No / reference
2	1	3	No / reference	No / reference
3	1	3	No / reference	No / reference
4	1	5	No / reference	No / reference
5	1	5	No / reference	No / reference
6	1	5	No / reference	Yes / target
7	1	3	No / reference	Yes / target
8	2	1	No / reference	No / reference
9	1	1	No / reference	Yes / target
10	1	5	No / reference	Yes / target
11	1	2	No / reference	No / reference
12	3	4	No / reference	No / reference
13	1	5	No / reference	Yes / target
14	2	3	No / reference	Yes / target
15	1	3	No / reference	Yes / target
16	1	2	No / reference	No / reference
17	1	2	No / reference	No / reference
18	3	4	No / reference	No / reference
19	1	5	No / reference	Yes / target
20	1	5	No / reference	Yes / target
21	1	1	No / reference	Yes / target
22	1	5	No / reference	Yes / target
23	1	5	No / reference	Yes / target
24	2	5	No / reference	Yes / target
25	1	5	No / reference	No / reference
26	1	5	No / reference	No / reference
27	1	5	No / reference	Yes / target
28	1	1	No / reference	Yes / target
29	1	5	No / reference	Yes / target

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
1	Yes / target	Yes / target	No / reference	10.21923
2	Yes / target	Yes / target	Yes / target	11.33857
3	Yes / target	Yes / target	Yes / target	13.49072
4	Yes / target	Yes / target	Yes / target	14.37721
5	Yes / target	Yes / target	No / reference	13.08353
6	Yes / target	Yes / target	Yes / target	12.27033
7	Yes / target	Yes / target	Yes / target	12.46995
8	Yes / target	Yes / target	No / reference	13.33184
9	Yes / target	Yes / target	Yes / target	16.25694
10	Yes / target	Yes / target	Yes / target	12.21468
11	Yes / target	Yes / target	Yes / target	14.55392
12	Yes / target	Yes / target	Yes / target	12.49758
13	Yes / target	Yes / target	Yes / target	12.98881
14	Yes / target	Yes / target	Yes / target	12.38168
15	Yes / target	Yes / target	Yes / target	14.37725
16	Yes / target	Yes / target	Yes / target	17.62149
17	Yes / target	Yes / target	Yes / target	13.76173
18	Yes / target	Yes / target	No / reference	14.59294
19	Yes / target	Yes / target	Yes / target	7.51267
20	Yes / target	Yes / target	Yes / target	12.21580
21	Yes / target	Yes / target	Yes / target	13.21094
22	Yes / target	Yes / target	Yes / target	11.98031
23	Yes / target	Yes / target	Yes / target	13.02172
24	Yes / target	Yes / target	Yes / target	10.39914
25	No / reference	Yes / target	Yes / target	11.23463
26	Yes / target	Yes / target	Yes / target	11.33306
27	Yes / target	Yes / target	Yes / target	12.15166
28	Yes / target	Yes / target	Yes / target	11.24570
29	Yes / target	Yes / target	Yes / target	12.27870

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
1	.78077
2	-.33857
3	-1.49072
4	-.37721
5	-.08353
6	.72967
7	.53005
8	-.33184
9	.74306
10	.78532
11	-.55392
12	.50242
13	-.98881
14	.61832
15	.62275
16	-.62149
17	.23827
18	-.59294
19	-.51267
20	-.21580
21	.78906
22	.01969
23	.97828
24	-.39914
25	-1.23463
26	.66694
27	-.15166
28	-.24570
29	.72130

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
30	12	12	11	2
31	11	10	11	2
32	15	15	15	2
33	15	13	14	2
34	12	13	12	2
35	12	12	12	1
36	11	11	11	1
37	14	14	14	3
38	13	13	13	3
39	12	11	12	3
40	12	14	13	1
41	10	11	11	2
42	11	10	11	1
43	15	14	15	2
44	10	9	10	1
45	11	10	11	2
46	11	10	11	2
47	13	13	12	2
48	17	17	17	4
49	13	11	12	2
50	12	13	12	2
51	13	14	13	2
52	16	16	14	2
53	9	10	9	1
54	12	13	12	1
55	13	13	12	1
56	12	12	13	2
57	15	15	14	2
58	16	15	15	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
30	0	4	16	4	4
31	0	0	15	4	4
32	0	2	15	4	4
33	0	0	15	4	3
34	0	0	15	3	3
35	0	4	16	3	2
36	0	4	15	2	3
37	0	0	15	4	3
38	0	4	16	4	4
39	0	2	15	3	4
40	0	8	15	2	2
41	0	16	16	2	2
42	0	8	15	4	4
43	0	0	15	4	4
44	0	0	15	2	2
45	1	14	16	2	2
46	0	4	15	4	3
47	0	6	16	3	3
48	0	2	16	4	3
49	0	4	15	4	2
50	0	2	15	4	4
51	0	0	16	2	2
52	0	0	15	4	2
53	0	4	15	4	2
54	0	0	15	4	4
55	0	0	15	3	3
56	0	2	16	2	1
57	0	0	15	4	3
58	0	8	15	4	4

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
30	1	5	No / reference	Yes / target
31	1	5	No / reference	Yes / target
32	2	5	No / reference	Yes / target
33	1	5	No / reference	Yes / target
34	1	2	No / reference	Yes / target
35	1	5	No / reference	Yes / target
36	2	5	No / reference	No / reference
37	1	4	No / reference	Yes / target
38	2	5	No / reference	Yes / target
39	1	5	No / reference	No / reference
40	1	2	No / reference	No / reference
41	2	3	No / reference	No / reference
42	1	5	No / reference	Yes / target
43	1	5	No / reference	Yes / target
44	1	1	No / reference	Yes / target
45	2	5	No / reference	No / reference
46	1	5	No / reference	No / reference
47	1	3	No / reference	No / reference
48	1	2	No / reference	Yes / target
49	1	5	No / reference	Yes / target
50	1	3	No / reference	No / reference
51	3	4	No / reference	No / reference
52	1	5	No / reference	No / reference
53	2	5	No / reference	Yes / target
54	1	5	No / reference	No / reference
55	1	1	No / reference	No / reference
56	1	2	No / reference	No / reference
57	1	1	No / reference	No / reference
58	1	5	No / reference	Yes / target

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
30	Yes / target	Yes / target	Yes / target	11.38858
31	Yes / target	Yes / target	Yes / target	11.02634
32	Yes / target	Yes / target	Yes / target	15.36924
33	No / reference	Yes / target	Yes / target	13.86138
34	Yes / target	Yes / target	Yes / target	12.46657
35	Yes / target	Yes / target	Yes / target	12.20370
36	Yes / target	Yes / target	No / reference	11.50189
37	Yes / target	Yes / target	Yes / target	14.26120
38	No / reference	Yes / target	Yes / target	13.30684
39	No / reference	Yes / target	Yes / target	12.19611
40	No / reference	Yes / target	No / reference	13.52853
41	Yes / target	Yes / target	Yes / target	11.92390
42	Yes / target	Yes / target	Yes / target	11.10217
43	Yes / target	Yes / target	Yes / target	15.06035
44	Yes / target	Yes / target	Yes / target	10.19841
45	Yes / target	Yes / target	Yes / target	11.44282
46	Yes / target	Yes / target	Yes / target	11.25606
47	Yes / target	Yes / target	Yes / target	12.73830
48	Yes / target	Yes / target	Yes / target	17.50232
49	Yes / target	Yes / target	No / reference	11.97699
50	Yes / target	Yes / target	Yes / target	12.62120
51	Yes / target	Yes / target	Yes / target	13.90796
52	Yes / target	Yes / target	Yes / target	14.58832
53	Yes / target	Yes / target	No / reference	9.30607
54	Yes / target	Yes / target	Yes / target	12.43702
55	Yes / target	Yes / target	Yes / target	12.65163
56	Yes / target	Yes / target	Yes / target	13.45848
57	Yes / target	Yes / target	Yes / target	14.67615
58	Yes / target	Yes / target	No / reference	15.25355

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
30	.61142
31	-.02634
32	-.36924
33	1.13862
34	-.46657
35	-.20370
36	-.50189
37	-.26120
38	-.30684
39	-.19611
40	-1.52853
41	-1.92390
42	-.10217
43	-.06035
44	-.19841
45	-.44282
46	-.25606
47	.26170
48	-.50232
49	1.02301
50	-.62120
51	-.90796
52	1.41168
53	-.30607
54	-.43702
55	.34837
56	-1.45848
57	.32385
58	.74645

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
59	14	14	13	2
60	16	16	15	2
61	16	17	16	2
62	16	10	10	1
63	10	13	13	2
64	13	14	13	3
65	12	13	12	2
66	16	16	15	2
67	12	11	12	4
68	10	10	9	4
69	11	11	10	2
70	15	15	15	4
71	11	13	11	4
72	10	11	9	4
73	11	13	11	2
74	14	13	13	1
75	11	11	11	2
76	11	11	11	2
77	11	12	11	4
78	13	13	13	4
79	10	9	9	1
80	11	12	11	2
81	12	11	11	1
82	9	10	9	3
83	11	12	11	2
84	13	13	12	2
85	12	13	12	2
86	12	12	11	2
87	11	13	11	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
59	0	0	15	1	2
60	0	2	16	4	2
61	0	0	16	4	4
62	0	0	16	1	1
63	0	0	16	1	2
64	0	0	16	4	3
65	0	0	15	4	3
66	0	2	16	4	3
67	0	0	15	4	4
68	0	0	16	3	1
69	0	0	15	2	2
70	0	6	15	3	1
71	0	2	16	3	1
72	0	0	15	4	2
73	0	2	15	1	1
74	0	0	16	3	1
75	0	4	16	3	3
76	0	0	15	4	3
77	0	0	15	4	0
78	0	1	16	2	2
79	3	0	17	2	1
80	0	14	16	3	4
81	0	0	15	2	3
82	0	2	15	2	3
83	0	4	15	3	2
84	0	2	15	2	2
85	0	2	15	1	1
86	0	4	15	4	4
87	0	6	16	2	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
59	1	5	No / reference	Yes / target
60	1	5	No / reference	No / reference
61	1	4	No / reference	No / reference
62	4	5	No / reference	No / reference
63	1	1	No / reference	No / reference
64	1	4	No / reference	No / reference
65	1	2	No / reference	No / reference
66	3	1	No / reference	No / reference
67	1	3	No / reference	Yes / target
68	1	5	No / reference	No / reference
69	2	4	No / reference	No / reference
70	2	3	No / reference	No / reference
71	2	5	No / reference	Yes / target
72	1	3	No / reference	Yes / target
73	1	5	No / reference	No / reference
74	1	5	No / reference	Yes / target
75	1	5	No / reference	No / reference
76	1	5	No / reference	Yes / target
77	2	1	No / reference	Yes / target
78	1	3	No / reference	No / reference
79	2	3	No / reference	Yes / target
80	1	3	No / reference	No / reference
81	1	3	No / reference	Yes / target
82	1	5	No / reference	Yes / target
83	1	5	No / reference	No / reference
84	2	4	No / reference	Yes / target
85	1	4	No / reference	No / reference
86	2	5	No / reference	No / reference
87	1	2	No / reference	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
59	Yes / target	Yes / target	Yes / target	13.39699
60	Yes / target	Yes / target	Yes / target	15.52802
61	No / reference	Yes / target	No / reference	16.37159
62	Yes / target	Yes / target	Yes / target	10.81055
63	Yes / target	Yes / target	Yes / target	13.68078
64	Yes / target	Yes / target	Yes / target	13.60801
65	Yes / target	Yes / target	Yes / target	12.61061
66	Yes / target	Yes / target	Yes / target	16.03563
67	Yes / target	Yes / target	Yes / target	12.24097
68	Yes / target	Yes / target	Yes / target	9.57397
69	No / reference	Yes / target	Yes / target	10.54360
70	No / reference	Yes / target	Yes / target	15.63512
71	Yes / target	Yes / target	Yes / target	11.70880
72	Yes / target	Yes / target	Yes / target	9.56087
73	No / reference	Yes / target	Yes / target	11.54599
74	Yes / target	Yes / target	No / reference	13.05051
75	Yes / target	Yes / target	Yes / target	11.46732
76	Yes / target	Yes / target	Yes / target	11.13263
77	Yes / target	Yes / target	Yes / target	11.63254
78	Yes / target	Yes / target	Yes / target	13.66206
79	Yes / target	No / reference	Yes / target	8.56056
80	Yes / target	Yes / target	Yes / target	11.88668
81	Yes / target	Yes / target	Yes / target	11.26920
82	Yes / target	Yes / target	Yes / target	9.42961
83	Yes / target	Yes / target	Yes / target	11.54219
84	Yes / target	Yes / target	Yes / target	12.56607
85	Yes / target	Yes / target	Yes / target	12.63415
86	Yes / target	Yes / target	Yes / target	11.69171
87	Yes / target	Yes / target	No / reference	11.86166

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
59	.60301
60	.47198
61	-.37159
62	5.18945
63	-3.68078
64	-.60801
65	-.61061
66	-.03563
67	-.24097
68	.42603
69	.45640
70	-.63512
71	-.70880
72	.43913
73	-.54599
74	.94949
75	-.46732
76	-.13263
77	-.63254
78	-.66206
79	1.43944
80	-.88668
81	.73080
82	-.42961
83	-.54219
84	.43393
85	-.63415
86	.30829
87	-.86166

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
88	15	15	15	3
89	11	12	10	2
90	10	9	9	2
91	11	9	11	3
92	13	14	13	1
93	12	12	13	2
94	14	13	14	2
95	12	11	12	4
96	13	13	13	4
97	11	9	11	1
98	12	13	12	2
99	13	12	13	1
100	13	12	13	3
101	8	9	9	1
102	16	16	16	3
103	12	12	13	1
104	10	11	10	2
105	16	16	16	2
106	10	10	10	4
107	10	10	10	4
108	14	13	14	3
109	11	12	10	4
110	14	15	15	3
111	14	13	14	1
112	11	11	11	3
113	10	8	10	2
114	18	18	17	1
115	10	10	9	2
116	14	16	14	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
88	0	4	15	4	2
89	0	6	16	2	2
90	0	6	16	4	4
91	0	2	16	3	3
92	0	6	15	4	3
93	0	0	16	3	1
94	0	2	16	4	2
95	0	2	15	2	2
96	0	4	15	1	1
97	0	6	16	4	3
98	0	0	16	2	1
99	0	4	16	4	4
100	0	2	16	4	3
101	0	12	16	4	4
102	0	0	16	4	4
103	0	2	15	4	4
104	0	16	15	3	2
105	0	0	15	3	4
106	0	10	15	3	3
107	0	4	15	2	2
108	0	4	16	3	3
109	0	8	15	4	4
110	0	2	16	4	4
111	0	4	15	4	4
112	0	4	16	3	3
113	1	12	16	2	2
114	0	10	15	4	2
115	0	4	15	2	1
116	0	6	16	4	4

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
88	1	1	No / reference	No / reference
89	2	3	No / reference	Yes / target
90	1	5	No / reference	Yes / target
91	1	4	No / reference	No / reference
92	1	1	No / reference	No / reference
93	1	2	No / reference	No / reference
94	2	1	No / reference	No / reference
95	1	4	No / reference	Yes / target
96	2	1	No / reference	No / reference
97	2	4	No / reference	Yes / target
98	1	5	No / reference	No / reference
99	1	1	No / reference	No / reference
100	1	3	No / reference	No / reference
101	1	4	No / reference	Yes / target
102	1	4	No / reference	Yes / target
103	1	5	No / reference	Yes / target
104	2	2	No / reference	No / reference
105	1	1	No / reference	Yes / target
106	1	4	No / reference	No / reference
107	1	3	No / reference	No / reference
108	1	5	No / reference	Yes / target
109	4	1	No / reference	Yes / target
110	1	4	No / reference	No / reference
111	1	4	No / reference	Yes / target
112	1	2	No / reference	No / reference
113	1	5	No / reference	No / reference
114	1	3	No / reference	Yes / target
115	1	5	No / reference	Yes / target
116	1	5	No / reference	Yes / target

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
88	Yes / target	Yes / target	Yes / target	15.64502
89	Yes / target	Yes / target	Yes / target	10.82702
90	Yes / target	Yes / target	No / reference	9.20137
91	Yes / target	Yes / target	Yes / target	11.27216
92	Yes / target	Yes / target	Yes / target	13.71088
93	Yes / target	Yes / target	No / reference	13.30889
94	Yes / target	Yes / target	Yes / target	14.59148
95	Yes / target	Yes / target	Yes / target	12.26602
96	No / reference	Yes / target	Yes / target	13.77662
97	No / reference	Yes / target	Yes / target	10.96973
98	Yes / target	Yes / target	No / reference	12.46745
99	Yes / target	Yes / target	Yes / target	13.47061
100	Yes / target	Yes / target	Yes / target	13.42349
101	Yes / target	Yes / target	Yes / target	9.36312
102	Yes / target	Yes / target	Yes / target	16.33616
103	Yes / target	Yes / target	Yes / target	13.02140
104	Yes / target	Yes / target	Yes / target	11.01831
105	Yes / target	Yes / target	Yes / target	16.44281
106	Yes / target	Yes / target	No / reference	10.61278
107	Yes / target	Yes / target	Yes / target	10.65402
108	Yes / target	Yes / target	Yes / target	14.22348
109	No / reference	Yes / target	Yes / target	11.11635
110	Yes / target	Yes / target	Yes / target	15.55131
111	Yes / target	Yes / target	Yes / target	14.11103
112	No / reference	Yes / target	Yes / target	11.50351
113	Yes / target	Yes / target	Yes / target	10.12542
114	Yes / target	Yes / target	Yes / target	17.49542
115	No / reference	Yes / target	Yes / target	9.19067
116	Yes / target	Yes / target	Yes / target	14.57950

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
88	-.64502
89	.17298
90	.79863
91	-.27216
92	-.71088
93	-1.30889
94	-.59148
95	-.26602
96	-.77662
97	.03027
98	-.46745
99	-.47061
100	-.42349
101	-1.36312
102	-.33616
103	-1.02140
104	-1.01831
105	-.44281
106	-.61278
107	-.65402
108	-.22348
109	-.11635
110	-1.55131
111	-.11103
112	-.50351
113	-.12542
114	.50458
115	.80933
116	-.57950

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
117	16	16	15	2
118	15	14	14	1
119	11	12	11	2
120	14	14	13	1
121	14	14	14	2
122	13	14	13	4
123	13	14	12	2
124	13	12	13	1
125	11	12	11	2
126	9	9	9	1
127	11	10	11	2
128	11	9	10	2
129	15	14	14	1
130	13	13	12	3
131	12	10	11	3
132	8	10	9	2
133	11	11	10	1
134	13	11	12	1
135	12	13	12	1
136	14	15	13	1
137	11	9	9	1
138	11	13	11	1
139	11	12	11	2
140	15	13	14	3
141	10	10	9	2
142	13	14	13	2
143	12	11	11	1
144	11	12	11	3
145	11	12	11	1

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
117	0	4	15	4	4
118	0	6	16	3	3
119	1	14	17	1	3
120	0	2	15	3	4
121	0	0	15	1	2
122	0	6	15	2	2
123	0	2	16	2	4
124	0	4	16	4	4
125	0	0	16	2	2
126	0	2	15	3	4
127	0	0	15	3	4
128	2	0	19	0	1
129	0	8	16	4	4
130	0	4	16	2	3
131	0	0	15	3	4
132	3	10	18	2	1
133	0	8	17	2	1
134	0	6	15	1	1
135	0	2	17	2	2
136	0	12	16	3	4
137	0	4	16	2	1
138	1	12	16	2	2
139	0	2	15	3	4
140	0	4	15	4	4
141	0	2	17	3	4
142	0	0	16	1	1
143	0	2	18	3	1
144	0	10	18	3	2
145	0	8	16	1	1

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
117	2	2	No / reference	Yes / target
118	2	5	No / reference	Yes / target
119	3	5	No / reference	Yes / target
120	1	4	No / reference	Yes / target
121	1	1	No / reference	No / reference
122	1	5	No / reference	Yes / target
123	2	5	No / reference	No / reference
124	1	5	No / reference	Yes / target
125	1	5	No / reference	No / reference
126	1	5	No / reference	Yes / target
127	1	1	No / reference	No / reference
128	1	5	No / reference	No / reference
129	1	4	No / reference	Yes / target
130	2	1	No / reference	Yes / target
131	2	5	No / reference	No / reference
132	1	5	No / reference	No / reference
133	3	5	No / reference	No / reference
134	3	4	No / reference	No / reference
135	1	5	No / reference	No / reference
136	1	5	No / reference	No / reference
137	4	2	No / reference	Yes / target
138	1	5	No / reference	No / reference
139	4	5	No / reference	Yes / target
140	1	5	No / reference	No / reference
141	3	5	No / reference	Yes / target
142	4	3	No / reference	No / reference
143	2	4	No / reference	Yes / target
144	1	5	No / reference	No / reference
145	2	1	No / reference	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
117	Yes / target	Yes / target	No / reference	15.61026
118	Yes / target	Yes / target	Yes / target	14.42331
119	No / reference	Yes / target	Yes / target	11.60190
120	Yes / target	Yes / target	Yes / target	13.38259
121	Yes / target	Yes / target	Yes / target	14.65786
122	Yes / target	Yes / target	Yes / target	13.55681
123	Yes / target	Yes / target	Yes / target	12.92590
124	Yes / target	Yes / target	Yes / target	13.08542
125	Yes / target	Yes / target	Yes / target	11.55546
126	Yes / target	Yes / target	Yes / target	9.16723
127	Yes / target	Yes / target	Yes / target	11.45855
128	Yes / target	No / reference	No / reference	9.74682
129	No / reference	Yes / target	Yes / target	14.17651
130	Yes / target	Yes / target	Yes / target	12.85674
131	No / reference	Yes / target	Yes / target	11.29850
132	Yes / target	No / reference	Yes / target	8.89281
133	Yes / target	Yes / target	Yes / target	10.91465
134	Yes / target	Yes / target	Yes / target	12.66613
135	Yes / target	Yes / target	Yes / target	12.57344
136	Yes / target	Yes / target	Yes / target	13.85232
137	Yes / target	Yes / target	No / reference	9.70475
138	Yes / target	Yes / target	No / reference	11.54068
139	No / reference	Yes / target	No / reference	11.56812
140	Yes / target	Yes / target	Yes / target	14.36263
141	No / reference	Yes / target	No / reference	9.47048
142	No / reference	Yes / target	No / reference	13.88654
143	Yes / target	Yes / target	Yes / target	11.39094
144	Yes / target	Yes / target	Yes / target	11.78876
145	No / reference	Yes / target	No / reference	11.75546

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
117	.38974
118	.57669
119	-.60190
120	.61741
121	-.65786
122	-.55681
123	.07410
124	-.08542
125	-.55546
126	-.16723
127	-.45855
128	1.25318
129	.82349
130	.14326
131	.70150
132	-.89281
133	.08535
134	.33387
135	-.57344
136	.14768
137	1.29525
138	-.54068
139	-.56812
140	.63737
141	.52952
142	-.88654
143	.60906
144	-.78876
145	-.75546

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
146	10	9	9	1
147	10	10	10	2
148	14	13	14	1
149	9	8	9	1
150	11	9	11	4
151	9	9	8	2
152	13	15	13	3
153	11	12	11	1
154	13	13	13	3
155	11	10	11	1
156	6	9	7	1
157	12	12	12	2
158	10	11	10	1
159	11	11	11	2
160	13	13	12	2
161	11	11	11	2
162	8	9	9	1
163	11	12	11	1
164	0	11	9	1
165	10	9	10	1
166	13	13	13	3
167	11	11	9	1
168	13	13	13	1
169	8	7	8	2
170	10	9	8	1
171	11	11	10	1
172	11	12	10	1
173	1	10	10	2
174	10	9	8	1

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
146	0	4	16	3	3
147	2	0	16	1	1
148	0	6	15	4	4
149	1	2	15	1	1
150	0	6	15	4	3
151	0	24	15	3	3
152	0	0	16	4	4
153	0	4	16	2	2
154	0	2	15	4	4
155	0	4	16	1	1
156	0	22	17	2	1
157	0	0	15	1	1
158	0	0	15	2	1
159	1	2	15	3	2
160	0	6	15	1	2
161	0	6	15	1	2
162	0	16	16	4	4
163	0	0	15	2	1
164	2	0	18	1	1
165	1	6	16	2	1
166	0	2	15	3	3
167	0	6	19	3	2
168	0	0	17	4	4
169	0	0	15	2	3
170	3	14	17	1	2
171	3	6	18	1	1
172	0	4	16	2	2
173	1	0	16	3	3
174	2	0	16	1	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
146	2	5	No / reference	No / reference
147	1	5	No / reference	Yes / target
148	2	5	No / reference	No / reference
149	3	1	No / reference	No / reference
150	2	3	No / reference	Yes / target
151	1	1	No / reference	No / reference
152	1	5	No / reference	Yes / target
153	2	2	No / reference	Yes / target
154	1	5	No / reference	No / reference
155	1	1	No / reference	No / reference
156	1	5	No / reference	Yes / target
157	1	5	No / reference	No / reference
158	2	5	No / reference	No / reference
159	1	3	No / reference	No / reference
160	1	5	No / reference	No / reference
161	1	1	No / reference	No / reference
162	1	5	No / reference	Yes / target
163	4	5	No / reference	Yes / target
164	1	4	No / reference	Yes / target
165	1	5	No / reference	Yes / target
166	2	3	No / reference	No / reference
167	1	4	No / reference	Yes / target
168	1	4	No / reference	No / reference
169	1	1	No / reference	Yes / target
170	1	5	No / reference	Yes / target
171	3	4	No / reference	No / reference
172	3	3	No / reference	Yes / target
173	1	5	No / reference	Yes / target
174	2	5	No / reference	Yes / target

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
146	Yes / target	Yes / target	Yes / target	9.53927
147	Yes / target	Yes / target	No / reference	9.73634
148	Yes / target	Yes / target	Yes / target	14.42964
149	No / reference	Yes / target	Yes / target	9.33847
150	Yes / target	Yes / target	Yes / target	11.31438
151	Yes / target	Yes / target	No / reference	8.99326
152	Yes / target	Yes / target	Yes / target	13.52776
153	Yes / target	Yes / target	Yes / target	11.66411
154	Yes / target	Yes / target	Yes / target	13.45435
155	Yes / target	Yes / target	Yes / target	11.51508
156	Yes / target	Yes / target	Yes / target	7.77205
157	Yes / target	Yes / target	Yes / target	12.42021
158	Yes / target	No / reference	Yes / target	10.38890
159	Yes / target	Yes / target	Yes / target	11.25523
160	Yes / target	Yes / target	Yes / target	12.67733
161	Yes / target	Yes / target	No / reference	11.66014
162	Yes / target	No / reference	Yes / target	9.19071
163	Yes / target	Yes / target	Yes / target	11.68236
164	Yes / target	No / reference	Yes / target	8.93125
165	Yes / target	Yes / target	No / reference	9.81836
166	No / reference	Yes / target	Yes / target	13.55145
167	Yes / target	No / reference	Yes / target	9.43016
168	Yes / target	Yes / target	No / reference	13.35409
169	No / reference	Yes / target	No / reference	8.02855
170	No / reference	Yes / target	No / reference	7.70115
171	No / reference	Yes / target	No / reference	10.11925
172	No / reference	Yes / target	No / reference	10.64946
173	Yes / target	Yes / target	Yes / target	9.98396
174	Yes / target	Yes / target	Yes / target	8.03762

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
146	.46073
147	.26366
148	-.42964
149	-.33847
150	-.31438
151	.00674
152	-.52776
153	-.66411
154	-.45435
155	-.51508
156	-1.77205
157	-.42021
158	-.38890
159	-.25523
160	.32267
161	-.66014
162	-1.19071
163	-.68236
164	-8.93125
165	.18164
166	-.55145
167	1.56984
168	-.35409
169	-.02855
170	2.29885
171	.88075
172	.35054
173	-8.98396
174	1.96238

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
175	9	8	8	1
176	8	7	6	2
177	10	8	9	1
178	8	9	8	1
179	8	8	8	2
180	8	8	7	1
181	11	9	10	2
182	18	17	17	2
183	13	12	12	2
184	17	16	16	2
185	10	9	9	1
186	18	16	17	2
187	10	11	9	2
188	13	14	13	2
189	15	14	14	2
190	11	10	11	2
191	14	13	12	2
192	10	11	9	2
193	11	10	9	1
194	13	11	11	2
195	11	11	10	2
196	13	11	12	2
197	17	17	18	2
198	14	14	13	2
199	16	14	15	2
200	14	11	13	2
201	11	10	9	1
202	16	13	14	2
203	14	12	13	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
175	1	8	17	2	1
176	2	4	17	3	2
177	0	2	15	1	2
178	1	2	16	1	3
179	0	0	17	1	1
180	3	10	17	3	2
181	0	0	16	2	2
182	0	0	16	4	2
183	0	0	16	2	2
184	0	0	16	4	4
185	1	4	16	3	4
186	0	0	16	1	0
187	0	0	17	4	4
188	0	0	16	1	3
189	0	0	16	3	3
190	0	0	17	4	3
191	0	0	16	2	2
192	0	4	17	3	3
193	0	8	16	4	2
194	0	4	17	4	3
195	0	4	16	4	3
196	0	0	16	3	3
197	0	0	17	2	4
198	0	32	17	3	3
199	0	8	16	3	2
200	0	6	17	3	3
201	0	0	16	1	2
202	0	0	16	2	1
203	0	10	17	3	3

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
175	2	5	No / reference	Yes / target
176	2	3	No / reference	Yes / target
177	2	5	No / reference	Yes / target
178	1	2	No / reference	Yes / target
179	4	5	No / reference	Yes / target
180	2	2	No / reference	Yes / target
181	1	4	No / reference	Yes / target
182	1	3	No / reference	No / reference
183	1	4	No / reference	No / reference
184	1	3	No / reference	No / reference
185	3	2	No / reference	Yes / target
186	2	3	No / reference	Yes / target
187	1	5	No / reference	Yes / target
188	1	3	No / reference	No / reference
189	2	4	No / reference	No / reference
190	2	4	No / reference	Yes / target
191	2	5	No / reference	No / reference
192	1	4	No / reference	Yes / target
193	1	3	No / reference	Yes / target
194	1	2	No / reference	Yes / target
195	1	3	No / reference	Yes / target
196	1	3	No / reference	Yes / target
197	1	5	No / reference	No / reference
198	1	1	No / reference	No / reference
199	1	1	No / reference	No / reference
200	1	4	No / reference	Yes / target
201	1	3	No / reference	Yes / target
202	1	5	No / reference	Yes / target
203	1	3	No / reference	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
175	No / reference	No / reference	Yes / target	7.85865
176	No / reference	Yes / target	Yes / target	6.01083
177	Yes / target	Yes / target	No / reference	9.14890
178	Yes / target	No / reference	Yes / target	8.12840
179	No / reference	No / reference	No / reference	8.26545
180	Yes / target	No / reference	No / reference	6.79738
181	Yes / target	No / reference	Yes / target	9.94972
182	Yes / target	Yes / target	Yes / target	17.47667
183	Yes / target	Yes / target	Yes / target	12.47967
184	Yes / target	Yes / target	Yes / target	16.52122
185	Yes / target	Yes / target	Yes / target	9.44519
186	Yes / target	Yes / target	Yes / target	17.38428
187	Yes / target	Yes / target	Yes / target	9.47064
188	Yes / target	Yes / target	Yes / target	13.74307
189	Yes / target	Yes / target	Yes / target	14.61967
190	Yes / target	Yes / target	Yes / target	11.25467
191	Yes / target	Yes / target	Yes / target	12.70744
192	Yes / target	Yes / target	Yes / target	9.60484
193	No / reference	Yes / target	Yes / target	9.26229
194	Yes / target	Yes / target	Yes / target	11.40625
195	Yes / target	Yes / target	Yes / target	10.45061
196	Yes / target	Yes / target	Yes / target	12.18382
197	Yes / target	Yes / target	No / reference	18.36383
198	Yes / target	Yes / target	Yes / target	14.29896
199	Yes / target	Yes / target	Yes / target	15.60129
200	Yes / target	Yes / target	Yes / target	13.14017
201	Yes / target	Yes / target	Yes / target	9.43693
202	Yes / target	Yes / target	Yes / target	14.09773
203	Yes / target	Yes / target	Yes / target	13.57776

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
175	1.14135
176	1.98917
177	.85110
178	-.12840
179	-.26545
180	1.20262
181	1.05028
182	.52333
183	.52033
184	.47878
185	.55481
186	.61572
187	.52936
188	-.74307
189	.38033
190	-.25467
191	1.29256
192	.39516
193	1.73771
194	1.59375
195	.54939
196	.81618
197	-1.36383
198	-.29896
199	.39871
200	.85983
201	1.56307
202	1.90227
203	.42224

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
204	10	9	9	2
205	13	12	12	2
206	12	12	11	2
207	12	10	11	2
208	10	11	10	1
209	12	13	12	1
210	16	14	15	2
211	14	13	13	1
212	12	10	11	1
213	16	14	15	1
214	11	11	10	2
215	15	14	14	2
216	12	11	12	2
217	15	14	15	2
218	13	13	13	1
219	13	13	13	4
220	8	8	9	3
221	12	11	11	2
222	15	14	15	2
223	13	12	13	1
224	12	11	12	3
225	12	12	12	4
226	12	13	12	2
227	13	13	13	2
228	11	12	11	2
229	11	12	11	1
230	15	14	16	2
231	10	11	9	2
232	10	10	10	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
204	0	6	17	1	2
205	0	6	16	2	3
206	0	0	17	1	1
207	0	16	17	1	2
208	0	0	16	3	3
209	0	0	16	2	3
210	0	8	17	2	4
211	0	4	17	4	4
212	0	16	16	3	3
213	1	30	17	4	4
214	0	0	16	4	4
215	0	2	16	4	3
216	0	4	16	2	3
217	0	0	17	1	1
218	0	21	17	2	2
219	0	6	16	2	2
220	1	14	17	3	4
221	0	2	16	3	1
222	0	4	16	4	3
223	0	2	16	1	1
224	0	0	17	4	3
225	0	4	19	3	3
226	0	15	17	4	4
227	0	0	16	2	2
228	0	10	18	2	2
229	0	6	17	4	4
230	0	2	17	3	2
231	0	16	17	4	3
232	0	10	18	3	3

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
204	1	3	No / reference	Yes / target
205	1	2	No / reference	No / reference
206	1	3	No / reference	No / reference
207	2	5	No / reference	Yes / target
208	1	5	No / reference	Yes / target
209	2	3	No / reference	Yes / target
210	1	5	No / reference	No / reference
211	1	5	No / reference	Yes / target
212	3	3	No / reference	Yes / target
213	2	2	No / reference	No / reference
214	1	3	No / reference	No / reference
215	1	2	No / reference	No / reference
216	1	4	No / reference	No / reference
217	1	1	No / reference	No / reference
218	1	3	No / reference	No / reference
219	2	5	No / reference	No / reference
220	1	5	No / reference	No / reference
221	1	4	No / reference	No / reference
222	1	1	No / reference	No / reference
223	2	5	No / reference	No / reference
224	2	4	No / reference	No / reference
225	1	3	No / reference	No / reference
226	1	3	No / reference	Yes / target
227	1	4	No / reference	No / reference
228	1	5	No / reference	Yes / target
229	1	3	No / reference	No / reference
230	2	1	No / reference	No / reference
231	1	1	No / reference	No / reference
232	1	4	No / reference	Yes / target

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
204	No / reference	Yes / target	No / reference	9.25392
205	Yes / target	Yes / target	Yes / target	12.70103
206	Yes / target	Yes / target	Yes / target	11.70443
207	Yes / target	Yes / target	Yes / target	11.58140
208	No / reference	Yes / target	Yes / target	10.11692
209	Yes / target	Yes / target	Yes / target	12.58543
210	Yes / target	Yes / target	Yes / target	15.53866
211	Yes / target	Yes / target	Yes / target	13.24966
212	No / reference	Yes / target	Yes / target	11.50453
213	Yes / target	Yes / target	Yes / target	15.81904
214	Yes / target	Yes / target	Yes / target	10.60303
215	Yes / target	Yes / target	Yes / target	14.55881
216	Yes / target	Yes / target	No / reference	12.36858
217	Yes / target	Yes / target	No / reference	15.49988
218	No / reference	Yes / target	Yes / target	13.69185
219	No / reference	Yes / target	Yes / target	13.62602
220	Yes / target	Yes / target	Yes / target	9.37432
221	Yes / target	Yes / target	Yes / target	11.43021
222	Yes / target	Yes / target	Yes / target	15.51562
223	Yes / target	Yes / target	No / reference	13.37888
224	No / reference	Yes / target	Yes / target	12.34483
225	Yes / target	Yes / target	Yes / target	12.77622
226	Yes / target	Yes / target	Yes / target	12.70482
227	Yes / target	Yes / target	Yes / target	13.48817
228	Yes / target	Yes / target	Yes / target	11.59019
229	No / reference	Yes / target	No / reference	11.45227
230	Yes / target	Yes / target	Yes / target	16.55411
231	Yes / target	Yes / target	Yes / target	10.09002
232	Yes / target	Yes / target	Yes / target	10.47690

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
204	.74608
205	.29897
206	.29557
207	.41860
208	-.11692
209	-.58543
210	.46134
211	.75034
212	.49547
213	.18096
214	.39697
215	.44119
216	-.36858
217	-.49988
218	-.69185
219	-.62602
220	-1.37432
221	.56979
222	-.51562
223	-.37888
224	-.34483
225	-.77622
226	-.70482
227	-.48817
228	-.59019
229	-.45227
230	-1.55411
231	-.09002
232	-.47690

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
233	13	12	13	1
234	13	12	12	3
235	11	11	10	2
236	12	12	12	3
237	14	13	13	2
238	10	10	9	2
239	16	15	16	3
240	8	8	8	2
241	17	17	18	2
242	11	10	11	2
243	11	9	10	2
244	16	15	15	3
245	12	14	12	2
246	13	12	13	2
247	13	13	13	2
248	14	13	13	2
249	9	9	9	2
250	12	12	12	3
251	16	16	16	2
252	10	9	10	1
253	13	14	13	2
254	10	10	10	2
255	10	9	8	2
256	7	8	7	1
257	8	7	8	1
258	9	10	8	1
259	15	14	14	2
260	10	11	10	3
261	11	12	11	1

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
233	0	4	17	2	3
234	0	0	17	2	2
235	0	0	17	2	1
236	0	12	17	1	1
237	0	0	16	2	3
238	3	9	18	2	2
239	0	4	16	4	4
240	0	4	18	3	1
241	0	2	17	3	2
242	0	0	17	2	3
243	0	2	18	2	1
244	0	0	17	2	1
245	0	0	17	4	3
246	0	0	17	2	2
247	0	0	17	4	4
248	0	0	16	4	4
249	0	2	16	1	1
250	0	0	16	3	2
251	0	0	17	2	2
252	0	4	16	2	1
253	0	0	16	4	1
254	1	18	18	2	4
255	1	16	18	2	2
256	1	14	18	3	3
257	1	26	18	2	2
258	0	6	17	4	4
259	0	4	17	3	2
260	0	10	17	1	1
261	0	4	16	1	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
233	2	3	No / reference	No / reference
234	1	4	No / reference	No / reference
235	2	5	No / reference	No / reference
236	1	5	No / reference	No / reference
237	1	3	No / reference	No / reference
238	2	4	No / reference	Yes / target
239	1	5	No / reference	No / reference
240	1	4	No / reference	No / reference
241	1	3	No / reference	No / reference
242	1	3	No / reference	Yes / target
243	4	3	No / reference	Yes / target
244	2	3	No / reference	No / reference
245	1	3	No / reference	No / reference
246	2	1	No / reference	Yes / target
247	1	2	No / reference	Yes / target
248	1	1	No / reference	Yes / target
249	2	5	No / reference	Yes / target
250	2	2	No / reference	Yes / target
251	1	4	No / reference	Yes / target
252	1	5	No / reference	No / reference
253	1	5	No / reference	No / reference
254	2	3	No / reference	No / reference
255	1	5	No / reference	No / reference
256	2	3	No / reference	No / reference
257	1	1	No / reference	Yes / target
258	1	5	No / reference	Yes / target
259	1	3	No / reference	No / reference
260	1	4	No / reference	No / reference
261	1	5	No / reference	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
233	Yes / target	Yes / target	No / reference	13.54598
234	Yes / target	Yes / target	Yes / target	12.56562
235	No / reference	Yes / target	Yes / target	10.53139
236	Yes / target	Yes / target	No / reference	12.66315
237	Yes / target	Yes / target	Yes / target	13.56323
238	Yes / target	Yes / target	Yes / target	9.09305
239	Yes / target	Yes / target	Yes / target	16.41106
240	No / reference	Yes / target	Yes / target	8.33620
241	Yes / target	Yes / target	Yes / target	18.46339
242	Yes / target	Yes / target	Yes / target	11.25376
243	Yes / target	Yes / target	Yes / target	10.68667
244	Yes / target	Yes / target	Yes / target	15.75662
245	Yes / target	Yes / target	Yes / target	12.75775
246	No / reference	Yes / target	Yes / target	13.32084
247	Yes / target	Yes / target	Yes / target	13.38460
248	Yes / target	Yes / target	Yes / target	13.40171
249	Yes / target	Yes / target	Yes / target	9.41113
250	Yes / target	Yes / target	Yes / target	12.53666
251	Yes / target	Yes / target	Yes / target	16.35404
252	Yes / target	Yes / target	Yes / target	10.26544
253	Yes / target	Yes / target	Yes / target	13.45189
254	Yes / target	Yes / target	Yes / target	10.84527
255	Yes / target	Yes / target	Yes / target	8.63490
256	Yes / target	No / reference	Yes / target	7.57027
257	Yes / target	No / reference	Yes / target	8.29167
258	Yes / target	Yes / target	Yes / target	8.50537
259	Yes / target	Yes / target	No / reference	14.52481
260	Yes / target	Yes / target	Yes / target	10.86488
261	Yes / target	No / reference	Yes / target	11.42406

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
233	-.54598
234	.43438
235	.46861
236	-.66315
237	.43677
238	.90695
239	-.41106
240	-.33620
241	-1.46339
242	-.25376
243	.31333
244	.24338
245	-.75775
246	-.32084
247	-.38460
248	.59829
249	-.41113
250	-.53666
251	-.35404
252	-.26544
253	-.45189
254	-.84527
255	1.36510
256	-.57027
257	-.29167
258	.49463
259	.47519
260	-.86488
261	-.42406

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
262	13	13	13	2
263	8	9	9	1
264	8	8	7	2
265	10	11	9	1
266	15	15	14	3
267	14	15	14	2
268	15	15	15	2
269	12	12	12	2
270	15	14	14	1
271	15	14	15	1
272	12	11	11	2
273	15	13	14	3
274	11	11	11	3
275	10	10	9	2
276	11	12	10	3
277	16	15	16	1
278	11	11	10	2
279	13	9	12	1
280	5	7	8	1
281	10	10	9	2
282	11	11	12	1
283	7	7	8	1
284	10	9	11	2
285	6	7	8	1
286	12	14	13	1
287	13	12	12	1
288	10	9	10	1
289	13	12	12	2
290	17	14	15	4

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
262	0	2	17	2	1
263	1	14	17	1	4
264	0	16	18	2	2
265	1	8	17	2	2
266	0	4	17	1	1
267	0	4	17	4	2
268	0	8	17	4	3
269	0	0	17	4	4
270	0	7	16	4	3
271	0	4	16	4	4
272	0	2	17	4	4
273	0	2	17	1	1
274	0	10	17	3	3
275	0	10	17	1	1
276	0	10	18	2	1
277	0	7	16	2	1
278	0	4	17	1	1
279	0	2	17	2	3
280	3	12	22	3	1
281	0	8	18	3	3
282	0	0	16	0	2
283	0	8	18	3	2
284	1	4	16	3	3
285	2	4	18	2	1
286	0	2	16	2	1
287	0	0	17	2	1
288	1	0	17	1	1
289	0	2	18	2	1
290	0	2	17	4	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
262	3	3	No / reference	No / reference
263	4	5	No / reference	No / reference
264	1	2	No / reference	Yes / target
265	1	1	No / reference	No / reference
266	2	5	No / reference	No / reference
267	1	4	No / reference	No / reference
268	2	5	No / reference	Yes / target
269	2	4	No / reference	Yes / target
270	1	3	No / reference	Yes / target
271	1	5	No / reference	Yes / target
272	1	5	No / reference	No / reference
273	2	1	No / reference	Yes / target
274	2	5	No / reference	No / reference
275	1	4	No / reference	No / reference
276	2	3	No / reference	No / reference
277	3	4	No / reference	Yes / target
278	1	5	No / reference	No / reference
279	2	2	No / reference	Yes / target
280	1	1	No / reference	Yes / target
281	1	5	No / reference	Yes / target
282	1	5	No / reference	Yes / target
283	2	5	No / reference	Yes / target
284	3	2	No / reference	Yes / target
285	1	5	No / reference	Yes / target
286	2	3	No / reference	Yes / target
287	1	5	No / reference	Yes / target
288	2	5	No / reference	Yes / target
289	1	5	No / reference	No / reference
290	1	4	No / reference	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
262	No / reference	Yes / target	No / reference	13.62723
263	No / reference	Yes / target	Yes / target	9.75862
264	Yes / target	No / reference	Yes / target	7.61048
265	Yes / target	No / reference	Yes / target	9.56497
266	No / reference	Yes / target	Yes / target	14.73213
267	Yes / target	Yes / target	No / reference	14.56208
268	Yes / target	Yes / target	Yes / target	15.50333
269	No / reference	Yes / target	Yes / target	12.25858
270	Yes / target	Yes / target	Yes / target	14.34616
271	Yes / target	Yes / target	Yes / target	15.10242
272	Yes / target	Yes / target	Yes / target	11.44566
273	No / reference	Yes / target	Yes / target	14.43696
274	Yes / target	Yes / target	Yes / target	11.79453
275	Yes / target	Yes / target	No / reference	9.73187
276	Yes / target	Yes / target	Yes / target	11.17412
277	Yes / target	Yes / target	Yes / target	16.50977
278	Yes / target	Yes / target	No / reference	10.59407
279	Yes / target	Yes / target	Yes / target	12.16670
280	Yes / target	No / reference	Yes / target	7.67845
281	No / reference	Yes / target	Yes / target	9.35616
282	Yes / target	Yes / target	Yes / target	12.14676
283	Yes / target	No / reference	Yes / target	8.11932
284	Yes / target	Yes / target	Yes / target	11.22456
285	Yes / target	No / reference	Yes / target	7.49392
286	No / reference	Yes / target	No / reference	13.33955
287	No / reference	Yes / target	Yes / target	12.02649
288	Yes / target	Yes / target	Yes / target	10.01250
289	Yes / target	Yes / target	Yes / target	12.50005
290	Yes / target	Yes / target	Yes / target	15.45140

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
262	-.62723
263	-1.75862
264	.38952
265	.43503
266	.26787
267	-.56208
268	-.50333
269	-.25858
270	.65384
271	-.10242
272	.55434
273	.56304
274	-.79453
275	.26813
276	-.17412
277	-.50977
278	.40593
279	.83330
280	-2.67845
281	.64384
282	-1.14676
283	-1.11932
284	-1.22456
285	-1.49392
286	-1.33955
287	.97351
288	-.01250
289	.49995
290	1.54860

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
291	11	10	10	2
292	11	11	10	2
293	14	11	12	3
294	14	11	12	3
295	13	11	11	2
296	14	11	13	2
297	16	16	16	2
298	10	9	10	1
299	12	10	11	4
300	12	10	12	2
301	15	15	15	2
302	11	10	10	2
303	12	10	11	3
304	13	15	12	3
305	13	11	12	3
306	9	8	8	1
307	16	15	16	2
308	14	11	11	2
309	12	10	11	2
310	14	10	12	2
311	10	8	9	2
312	12	11	12	2
313	16	16	16	4
314	13	13	13	2
315	18	16	17	2
316	15	14	14	2
317	16	15	16	2
318	12	12	12	2
319	10	12	9	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
291	0	0	19	2	2
292	1	4	18	2	1
293	0	2	17	4	2
294	0	4	18	1	1
295	0	4	18	2	2
296	0	4	19	4	3
297	0	2	18	2	1
298	0	0	17	2	2
299	0	2	17	2	2
300	0	8	20	2	1
301	0	2	18	4	3
302	0	2	18	4	3
303	0	2	18	3	2
304	0	2	17	3	3
305	0	0	18	2	2
306	0	8	17	2	2
307	0	6	18	3	4
308	0	0	17	3	1
309	0	8	18	4	4
310	0	4	18	4	2
311	0	12	18	2	1
312	0	16	19	3	3
313	0	10	18	2	3
314	0	2	18	1	1
315	0	2	17	1	2
316	0	8	18	2	1
317	0	6	17	2	4
318	0	6	17	2	2
319	0	15	18	3	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
291	1	5	No / reference	No / reference
292	3	5	No / reference	Yes / target
293	1	5	No / reference	No / reference
294	1	3	No / reference	No / reference
295	1	5	No / reference	No / reference
296	1	1	No / reference	Yes / target
297	1	4	No / reference	Yes / target
298	2	4	No / reference	Yes / target
299	1	2	No / reference	No / reference
300	2	2	No / reference	No / reference
301	1	2	No / reference	No / reference
302	1	3	No / reference	Yes / target
303	1	3	No / reference	Yes / target
304	1	4	No / reference	No / reference
305	1	3	No / reference	No / reference
306	2	4	No / reference	Yes / target
307	2	1	No / reference	Yes / target
308	1	5	No / reference	Yes / target
309	2	4	No / reference	No / reference
310	1	5	No / reference	Yes / target
311	2	3	No / reference	No / reference
312	1	5	No / reference	No / reference
313	1	2	No / reference	No / reference
314	2	3	No / reference	No / reference
315	1	1	No / reference	Yes / target
316	1	1	No / reference	No / reference
317	2	1	No / reference	No / reference
318	2	5	No / reference	No / reference
319	2	5	No / reference	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
291	Yes / target	Yes / target	Yes / target	10.50840
292	Yes / target	No / reference	Yes / target	10.33668
293	No / reference	Yes / target	Yes / target	12.15888
294	Yes / target	Yes / target	No / reference	12.52845
295	No / reference	Yes / target	No / reference	11.31674
296	Yes / target	Yes / target	Yes / target	13.26899
297	Yes / target	Yes / target	Yes / target	16.39152
298	No / reference	No / reference	No / reference	9.83617
299	Yes / target	Yes / target	Yes / target	11.60849
300	No / reference	No / reference	Yes / target	12.33110
301	Yes / target	Yes / target	Yes / target	15.63016
302	Yes / target	Yes / target	Yes / target	10.34805
303	No / reference	Yes / target	No / reference	11.06484
304	Yes / target	Yes / target	No / reference	12.90620
305	Yes / target	Yes / target	Yes / target	12.51276
306	Yes / target	No / reference	Yes / target	8.31627
307	No / reference	Yes / target	Yes / target	16.48158
308	Yes / target	Yes / target	Yes / target	11.18945
309	No / reference	Yes / target	Yes / target	11.47011
310	Yes / target	Yes / target	Yes / target	12.00842
311	No / reference	No / reference	Yes / target	9.39222
312	Yes / target	Yes / target	Yes / target	12.63282
313	Yes / target	Yes / target	Yes / target	16.97213
314	Yes / target	Yes / target	No / reference	13.72613
315	No / reference	Yes / target	No / reference	17.22100
316	Yes / target	Yes / target	Yes / target	14.80895
317	Yes / target	Yes / target	Yes / target	16.85218
318	Yes / target	Yes / target	Yes / target	12.70382
319	No / reference	No / reference	Yes / target	9.85482

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
291	.49160
292	.66332
293	1.84112
294	1.47155
295	1.68326
296	.73101
297	-.39152
298	.16383
299	.39151
300	-.33110
301	-.63016
302	.65195
303	.93516
304	.09380
305	.48724
306	.68373
307	-.48158
308	2.81055
309	.52989
310	1.99158
311	.60778
312	-.63282
313	-.97213
314	-.72613
315	.77900
316	.19105
317	-.85218
318	-.70382
319	.14518

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
320	12	11	12	1
321	13	14	12	2
322	15	13	15	3
323	10	9	8	2
324	10	10	10	1
325	11	10	10	1
326	10	11	11	1
327	13	13	13	1
328	18	17	17	4
329	13	12	13	2
330	14	12	12	2
331	14	12	13	2
332	12	12	12	2
333	18	18	18	3
334	14	13	13	3
335	15	14	15	3
336	17	17	17	2
337	16	15	16	2
338	18	17	18	3
339	19	18	19	4
340	15	14	15	3
341	15	14	15	1
342	13	14	13	2
343	14	13	14	2
344	17	16	17	4
345	17	18	18	1
346	15	14	15	2
347	13	12	13	1
348	8	7	7	3

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
320	0	6	18	4	4
321	1	2	18	4	4
322	0	8	17	2	2
323	1	0	19	3	2
324	0	0	18	4	3
325	0	10	18	1	2
326	0	22	17	4	1
327	0	18	17	3	2
328	0	2	18	1	1
329	0	0	18	1	1
330	0	12	17	2	2
331	0	10	18	2	1
332	0	0	17	1	1
333	0	0	18	2	2
334	0	0	17	1	1
335	0	0	18	2	1
336	0	0	18	4	4
337	0	2	18	4	2
338	0	0	17	4	3
339	0	0	17	3	1
340	0	0	18	3	2
341	0	0	17	3	3
342	0	2	19	4	4
343	0	0	18	4	3
344	0	0	18	4	3
345	0	0	18	4	4
346	0	0	18	4	4
347	0	0	17	4	4
348	0	0	17	4	4

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
320	2	3	No / reference	Yes / target
321	1	4	No / reference	No / reference
322	3	1	No / reference	No / reference
323	1	3	No / reference	No / reference
324	2	1	No / reference	Yes / target
325	2	4	No / reference	Yes / target
326	2	5	No / reference	Yes / target
327	1	3	No / reference	Yes / target
328	2	3	No / reference	No / reference
329	2	4	No / reference	No / reference
330	1	5	No / reference	No / reference
331	2	5	No / reference	No / reference
332	1	4	No / reference	Yes / target
333	1	2	No / reference	No / reference
334	1	3	No / reference	No / reference
335	1	2	No / reference	Yes / target
336	1	2	No / reference	Yes / target
337	1	5	No / reference	Yes / target
338	1	3	No / reference	No / reference
339	2	3	No / reference	No / reference
340	2	4	No / reference	Yes / target
341	1	5	No / reference	Yes / target
342	2	2	No / reference	No / reference
343	2	2	No / reference	No / reference
344	1	3	No / reference	No / reference
345	1	1	No / reference	Yes / target
346	1	4	No / reference	No / reference
347	2	5	No / reference	Yes / target
348	2	5	No / reference	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
320	Yes / target	Yes / target	Yes / target	12.41290
321	Yes / target	Yes / target	Yes / target	12.58114
322	Yes / target	Yes / target	Yes / target	15.88841
323	No / reference	No / reference	Yes / target	8.10264
324	Yes / target	Yes / target	Yes / target	10.50147
325	Yes / target	No / reference	Yes / target	10.44431
326	Yes / target	Yes / target	Yes / target	11.58987
327	Yes / target	Yes / target	Yes / target	13.56882
328	No / reference	Yes / target	No / reference	17.70527
329	Yes / target	Yes / target	Yes / target	13.58218
330	Yes / target	Yes / target	Yes / target	12.65810
331	Yes / target	Yes / target	Yes / target	13.64958
332	Yes / target	Yes / target	Yes / target	12.34052
333	Yes / target	Yes / target	Yes / target	18.74512
334	Yes / target	Yes / target	Yes / target	13.64315
335	Yes / target	Yes / target	Yes / target	15.36920
336	Yes / target	Yes / target	Yes / target	17.45004
337	Yes / target	Yes / target	Yes / target	16.14266
338	Yes / target	Yes / target	Yes / target	18.46484
339	No / reference	Yes / target	No / reference	19.43140
340	No / reference	Yes / target	Yes / target	15.23119
341	Yes / target	Yes / target	Yes / target	15.08916
342	Yes / target	Yes / target	Yes / target	13.94741
343	Yes / target	Yes / target	Yes / target	14.59973
344	Yes / target	Yes / target	Yes / target	17.54229
345	Yes / target	Yes / target	Yes / target	18.45254
346	Yes / target	Yes / target	Yes / target	15.39422
347	Yes / target	Yes / target	Yes / target	13.19514
348	No / reference	Yes / target	Yes / target	7.41314

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
320	-.41290
321	.41886
322	-.88841
323	1.89736
324	-.50147
325	.55569
326	-1.58987
327	-.56882
328	.29473
329	-.58218
330	1.34190
331	.35042
332	-.34052
333	-.74512
334	.35685
335	-.36920
336	-.45004
337	-.14266
338	-.46484
339	-.43140
340	-.23119
341	-.08916
342	-.94741
343	-.59973
344	-.54229
345	-1.45254
346	-.39422
347	-.19514
348	.58686

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
349	16	16	16	3
350	18	18	18	4
351	11	9	10	3
352	15	14	15	1
353	11	10	10	2
354	11	10	10	2
355	15	12	12	2
356	14	11	12	2
357	17	15	16	1
358	17	14	15	3
359	15	12	12	1
360	17	15	15	3
361	14	11	12	2
362	10	11	10	2
363	13	12	11	2
364	14	11	12	1
365	17	14	15	1
366	17	15	14	2
367	13	12	12	2
368	14	11	12	2
369	11	8	9	1
370	11	10	10	3
371	9	8	8	2
372	10	10	10	1
373	13	14	13	2
374	10	11	11	3
375	17	17	18	3
376	15	14	14	3
377	14	14	14	3

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
349	0	0	17	4	2
350	0	0	17	3	2
351	1	0	19	2	1
352	2	0	20	3	2
353	0	0	19	3	3
354	0	2	18	1	4
355	0	2	18	2	1
356	0	2	17	2	3
357	0	2	17	4	4
358	0	2	18	4	3
359	0	8	18	4	3
360	0	2	17	3	4
361	0	8	18	3	3
362	0	9	19	4	2
363	0	0	18	4	4
364	0	4	18	3	4
365	0	2	17	4	4
366	0	14	17	4	3
367	0	0	17	3	3
368	0	2	17	2	1
369	0	2	18	4	4
370	0	12	19	1	1
371	2	2	19	1	1
372	0	2	18	2	2
373	0	4	17	2	2
374	0	0	17	2	2
375	0	0	17	3	1
376	0	0	17	0	2
377	0	0	18	1	1

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
349	2	3	No / reference	No / reference
350	1	5	No / reference	No / reference
351	2	5	No / reference	Yes / target
352	1	5	No / reference	Yes / target
353	1	5	No / reference	Yes / target
354	1	5	No / reference	No / reference
355	2	1	No / reference	No / reference
356	2	3	No / reference	No / reference
357	1	5	No / reference	No / reference
358	1	5	No / reference	No / reference
359	2	1	No / reference	No / reference
360	1	5	No / reference	No / reference
361	1	3	No / reference	No / reference
362	2	1	No / reference	Yes / target
363	1	5	No / reference	No / reference
364	1	1	No / reference	No / reference
365	1	5	No / reference	No / reference
366	1	5	No / reference	No / reference
367	1	5	No / reference	No / reference
368	1	2	No / reference	No / reference
369	1	5	No / reference	Yes / target
370	3	5	No / reference	No / reference
371	3	4	No / reference	No / reference
372	1	5	No / reference	No / reference
373	1	3	No / reference	No / reference
374	1	3	No / reference	No / reference
375	1	5	No / reference	No / reference
376	2	2	No / reference	No / reference
377	2	2	No / reference	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
349	Yes / target	Yes / target	Yes / target	16.69761
350	Yes / target	Yes / target	Yes / target	18.57562
351	No / reference	Yes / target	Yes / target	9.97345
352	Yes / target	Yes / target	No / reference	14.64968
353	No / reference	Yes / target	No / reference	10.06292
354	Yes / target	Yes / target	No / reference	10.53966
355	Yes / target	Yes / target	Yes / target	12.83765
356	Yes / target	Yes / target	Yes / target	12.62940
357	No / reference	Yes / target	Yes / target	16.13688
358	Yes / target	Yes / target	Yes / target	15.40628
359	Yes / target	Yes / target	Yes / target	12.83991
360	No / reference	Yes / target	Yes / target	15.41728
361	Yes / target	Yes / target	Yes / target	12.56809
362	Yes / target	Yes / target	Yes / target	10.84038
363	Yes / target	Yes / target	Yes / target	11.57731
364	Yes / target	Yes / target	Yes / target	12.57197
365	Yes / target	Yes / target	Yes / target	15.29232
366	Yes / target	Yes / target	Yes / target	14.77300
367	Yes / target	Yes / target	Yes / target	12.44207
368	Yes / target	Yes / target	Yes / target	12.48140
369	Yes / target	Yes / target	Yes / target	9.08166
370	Yes / target	No / reference	No / reference	10.80690
371	Yes / target	Yes / target	Yes / target	8.44274
372	Yes / target	Yes / target	Yes / target	10.45504
373	Yes / target	Yes / target	No / reference	13.69614
374	No / reference	Yes / target	Yes / target	11.44171
375	Yes / target	Yes / target	Yes / target	18.36174
376	Yes / target	Yes / target	Yes / target	14.91721
377	Yes / target	Yes / target	Yes / target	14.87509

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
349	-.69761
350	-.57562
351	1.02655
352	.35032
353	.93708
354	.46034
355	2.16235
356	1.37060
357	.86312
358	1.59372
359	2.16009
360	1.58272
361	1.43191
362	-.84038
363	1.42269
364	1.42803
365	1.70768
366	2.22700
367	.55793
368	1.51860
369	1.91834
370	.19310
371	.55726
372	-.45504
373	-.69614
374	-1.44171
375	-1.36174
376	.08279
377	-.87509

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
378	13	13	14	3
379	17	17	18	1
380	10	11	10	1
381	13	13	12	3
382	15	15	14	3
383	11	11	12	1
384	12	11	11	4
385	10	11	10	1
386	10	10	9	2
387	15	15	15	3
388	15	15	14	1
389	12	10	11	2
390	12	10	9	2
391	14	14	13	4
392	14	11	13	3
393	15	12	13	2
394	15	14	14	4
395	16	14	14	2
396	13	12	12	2
397	17	16	16	2
398	14	10	12	2
399	14	11	12	3
400	17	14	16	3
401	17	15	14	3
402	14	14	13	3
403	13	11	12	3
404	15	12	15	2
405	16	12	16	2
406	11	10	11	1

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
378	0	0	18	4	4
379	0	0	17	3	3
380	0	2	17	2	2
381	0	0	17	4	4
382	0	4	17	4	4
383	0	2	17	3	3
384	0	0	18	2	2
385	0	0	19	3	2
386	0	2	18	2	2
387	0	0	17	2	4
388	0	6	18	2	2
389	0	8	18	3	3
390	0	0	18	2	2
391	0	6	18	2	2
392	0	8	17	3	4
393	0	0	17	3	2
394	0	4	18	3	3
395	0	0	17	3	2
396	0	0	18	4	4
397	0	6	18	3	4
398	0	18	17	2	2
399	0	0	18	2	3
400	0	4	18	3	2
401	0	4	18	4	3
402	0	0	18	4	3
403	0	0	17	4	3
404	0	10	17	2	1
405	0	4	17	2	1
406	1	16	19	2	3

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
378	1	3	No / reference	Yes / target
379	1	5	No / reference	Yes / target
380	4	4	No / reference	Yes / target
381	1	4	No / reference	No / reference
382	2	4	No / reference	No / reference
383	1	5	No / reference	No / reference
384	1	5	No / reference	Yes / target
385	1	5	No / reference	Yes / target
386	4	2	No / reference	No / reference
387	1	5	No / reference	No / reference
388	1	5	No / reference	Yes / target
389	1	4	No / reference	No / reference
390	1	2	No / reference	No / reference
391	2	4	No / reference	No / reference
392	1	5	No / reference	No / reference
393	1	2	No / reference	No / reference
394	1	1	No / reference	No / reference
395	1	2	No / reference	No / reference
396	1	2	No / reference	Yes / target
397	1	5	No / reference	Yes / target
398	1	4	No / reference	No / reference
399	1	3	No / reference	No / reference
400	1	1	No / reference	No / reference
401	1	4	No / reference	Yes / target
402	1	5	No / reference	Yes / target
403	1	4	No / reference	No / reference
404	2	1	No / reference	No / reference
405	1	4	No / reference	No / reference
406	2	5	No / reference	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
378	Yes / target	Yes / target	Yes / target	14.29771
379	Yes / target	Yes / target	Yes / target	18.11467
380	No / reference	Yes / target	Yes / target	10.68041
381	Yes / target	Yes / target	Yes / target	12.65746
382	Yes / target	Yes / target	Yes / target	14.88313
383	Yes / target	Yes / target	Yes / target	12.28731
384	Yes / target	Yes / target	Yes / target	11.40348
385	No / reference	Yes / target	No / reference	10.11468
386	Yes / target	Yes / target	No / reference	10.13995
387	No / reference	Yes / target	Yes / target	15.43171
388	Yes / target	Yes / target	Yes / target	14.49598
389	Yes / target	Yes / target	Yes / target	11.51106
390	Yes / target	Yes / target	Yes / target	9.74689
391	No / reference	Yes / target	No / reference	13.80023
392	Yes / target	Yes / target	Yes / target	13.39635
393	Yes / target	Yes / target	Yes / target	13.43682
394	Yes / target	Yes / target	Yes / target	14.85886
395	No / reference	Yes / target	Yes / target	14.41420
396	Yes / target	Yes / target	Yes / target	12.40752
397	Yes / target	Yes / target	Yes / target	16.44073
398	Yes / target	Yes / target	Yes / target	12.53877
399	Yes / target	Yes / target	Yes / target	12.53929
400	Yes / target	Yes / target	Yes / target	16.52917
401	No / reference	Yes / target	Yes / target	14.38953
402	Yes / target	Yes / target	Yes / target	13.43126
403	Yes / target	Yes / target	Yes / target	12.36529
404	Yes / target	Yes / target	Yes / target	15.56364
405	Yes / target	Yes / target	Yes / target	16.05248
406	Yes / target	No / reference	Yes / target	11.35261

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
378	-1.29771
379	-1.11467
380	-.68041
381	.34254
382	.11687
383	-1.28731
384	.59652
385	-.11468
386	-.13995
387	-.43171
388	.50402
389	.48894
390	2.25311
391	.19977
392	.60365
393	1.56318
394	.14114
395	1.58580
396	.59248
397	.55927
398	1.46123
399	1.46071
400	.47083
401	2.61047
402	.56874
403	.63471
404	-.56364
405	-.05248
406	-.35261

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
407	13	10	13	1
408	12	9	12	3
409	12	9	11	2
410	15	13	14	2
411	17	13	17	2
412	15	12	15	3
413	17	14	17	2
414	10	9	10	2
415	15	11	15	3
416	11	9	10	1
417	18	16	18	2
418	17	14	17	3
419	14	13	14	1
420	11	7	11	1
421	17	14	17	2
422	10	8	10	1
423	13	10	13	2
424	11	10	11	1
425	12	12	12	2
426	10	10	10	1
427	11	10	10	1
428	17	16	17	2
429	9	6	8	1
430	11	10	11	2
431	11	10	11	3
432	10	10	10	2
433	7	6	6	1
434	14	13	14	1
435	11	10	9	4

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
407	1	6	17	3	1
408	2	0	21	4	4
409	0	11	18	2	2
410	0	9	18	3	4
411	0	0	17	2	2
412	0	2	17	4	4
413	0	0	18	4	2
414	2	21	21	1	1
415	0	8	20	1	1
416	1	5	19	4	4
417	0	10	17	3	2
418	0	5	18	3	2
419	0	13	18	2	3
420	0	10	19	2	1
421	0	10	18	2	2
422	1	5	20	1	0
423	0	4	18	3	2
424	0	11	16	1	3
425	0	0	16	2	2
426	1	6	15	1	1
427	0	4	15	3	3
428	0	0	16	2	3
429	0	0	15	2	1
430	0	5	16	4	4
431	0	0	16	1	2
432	1	0	17	3	2
433	1	0	17	1	1
434	0	0	15	4	4
435	0	4	16	2	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
407	1	3	No / reference	No / reference
408	1	5	No / reference	No / reference
409	1	3	No / reference	Yes / target
410	1	2	No / reference	Yes / target
411	1	4	No / reference	No / reference
412	1	4	No / reference	Yes / target
413	1	3	No / reference	No / reference
414	2	4	No / reference	Yes / target
415	2	3	No / reference	No / reference
416	1	5	No / reference	No / reference
417	1	5	No / reference	Yes / target
418	1	2	No / reference	No / reference
419	1	4	No / reference	Yes / target
420	1	4	No / reference	Yes / target
421	2	4	No / reference	No / reference
422	2	5	No / reference	No / reference
423	1	1	No / reference	No / reference
424	2	5	Yes / target	No / reference
425	2	5	Yes / target	No / reference
426	1	2	Yes / target	No / reference
427	2	5	Yes / target	No / reference
428	2	5	Yes / target	No / reference
429	2	1	Yes / target	No / reference
430	1	2	Yes / target	Yes / target
431	1	5	Yes / target	Yes / target
432	1	5	Yes / target	No / reference
433	1	5	Yes / target	No / reference
434	2	5	Yes / target	No / reference
435	2	1	Yes / target	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
407	Yes / target	Yes / target	Yes / target	12.92074
408	Yes / target	Yes / target	Yes / target	11.76611
409	Yes / target	No / reference	Yes / target	11.11603
410	Yes / target	Yes / target	Yes / target	14.48539
411	Yes / target	Yes / target	Yes / target	17.02233
412	Yes / target	Yes / target	Yes / target	14.99321
413	Yes / target	Yes / target	Yes / target	17.14106
414	No / reference	No / reference	Yes / target	10.01183
415	No / reference	Yes / target	Yes / target	15.33305
416	Yes / target	Yes / target	Yes / target	10.14292
417	Yes / target	Yes / target	Yes / target	18.17280
418	Yes / target	Yes / target	Yes / target	17.37262
419	No / reference	Yes / target	Yes / target	14.25552
420	Yes / target	Yes / target	Yes / target	10.92498
421	Yes / target	Yes / target	Yes / target	17.49301
422	Yes / target	Yes / target	Yes / target	10.21996
423	Yes / target	Yes / target	Yes / target	13.31631
424	Yes / target	No / reference	Yes / target	11.23662
425	No / reference	Yes / target	Yes / target	12.20480
426	No / reference	Yes / target	No / reference	9.93362
427	No / reference	Yes / target	Yes / target	10.14653
428	No / reference	Yes / target	No / reference	17.07104
429	No / reference	No / reference	No / reference	7.72775
430	No / reference	Yes / target	No / reference	10.84503
431	Yes / target	Yes / target	Yes / target	10.99443
432	No / reference	Yes / target	No / reference	9.74012
433	No / reference	No / reference	Yes / target	5.60001
434	No / reference	Yes / target	Yes / target	13.96205
435	Yes / target	No / reference	No / reference	9.58538

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
407	.07926
408	.23389
409	.88397
410	.51461
411	-.02233
412	.00679
413	-.14106
414	-.01183
415	-.33305
416	.85708
417	-.17280
418	-.37262
419	-.25552
420	.07502
421	-.49301
422	-.21996
423	-.31631
424	-.23662
425	-.20480
426	.06638
427	.85347
428	-.07104
429	1.27225
430	.15497
431	.00557
432	.25988
433	1.39999
434	.03795
435	1.41462

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
436	10	10	10	2
437	8	6	7	1
438	12	12	11	1
439	12	10	11	1
440	16	14	16	1
441	0	7	0	2
442	9	8	9	2
443	14	12	13	2
444	8	7	9	2
445	11	9	10	2
446	9	7	9	2
447	11	11	11	2
448	9	8	10	1
449	17	16	16	3
450	13	11	13	1
451	15	15	15	2
452	11	10	11	2
453	11	9	10	2
454	8	10	8	3
455	8	9	8	3
456	9	9	10	2
457	15	13	14	2
458	11	10	11	1
459	13	13	10	4
460	10	10	9	3
461	11	11	10	2
462	14	13	12	1
463	14	13	14	2
464	12	14	11	3

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
436	0	0	15	1	1
437	1	4	15	1	1
438	0	0	16	0	2
439	0	2	17	2	3
440	0	0	15	3	3
441	0	0	16	1	1
442	0	4	17	1	1
443	0	0	15	4	1
444	0	7	15	4	1
445	0	4	16	3	4
446	0	8	15	1	1
447	0	0	15	3	3
448	0	8	17	2	1
449	0	6	16	4	4
450	0	3	15	1	2
451	0	2	16	2	3
452	0	0	16	1	2
453	0	4	16	2	2
454	1	0	16	1	2
455	1	3	16	1	2
456	0	0	15	2	1
457	0	0	16	1	1
458	0	4	17	1	2
459	0	0	16	1	1
460	0	2	16	1	1
461	0	1	15	1	1
462	0	0	16	1	1
463	0	0	15	1	1
464	0	2	15	2	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
436	2	4	Yes / target	No / reference
437	2	2	Yes / target	No / reference
438	2	2	Yes / target	No / reference
439	2	3	Yes / target	No / reference
440	2	4	Yes / target	No / reference
441	2	3	Yes / target	Yes / target
442	1	5	Yes / target	Yes / target
443	1	2	Yes / target	Yes / target
444	1	2	Yes / target	Yes / target
445	3	5	Yes / target	Yes / target
446	4	4	Yes / target	Yes / target
447	1	5	Yes / target	Yes / target
448	3	3	Yes / target	Yes / target
449	2	4	Yes / target	No / reference
450	2	1	Yes / target	No / reference
451	3	1	Yes / target	No / reference
452	2	5	Yes / target	Yes / target
453	3	4	Yes / target	No / reference
454	1	4	Yes / target	No / reference
455	1	4	Yes / target	No / reference
456	1	2	Yes / target	No / reference
457	1	2	Yes / target	No / reference
458	1	3	Yes / target	Yes / target
459	4	1	Yes / target	No / reference
460	4	5	Yes / target	No / reference
461	2	2	Yes / target	No / reference
462	2	2	Yes / target	No / reference
463	3	2	Yes / target	No / reference
464	1	5	Yes / target	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
436	No / reference	Yes / target	Yes / target	10.22540
437	No / reference	Yes / target	Yes / target	6.95616
438	No / reference	Yes / target	No / reference	11.44424
439	No / reference	Yes / target	Yes / target	11.19655
440	No / reference	Yes / target	Yes / target	15.91526
441	Yes / target	Yes / target	No / reference	1.05295
442	Yes / target	Yes / target	Yes / target	8.99296
443	No / reference	Yes / target	Yes / target	12.73954
444	No / reference	Yes / target	Yes / target	8.68677
445	No / reference	Yes / target	No / reference	10.00863
446	No / reference	Yes / target	No / reference	9.10754
447	Yes / target	Yes / target	Yes / target	10.97378
448	No / reference	No / reference	No / reference	9.79332
449	No / reference	Yes / target	Yes / target	16.39866
450	No / reference	Yes / target	No / reference	13.08176
451	No / reference	Yes / target	Yes / target	15.62703
452	No / reference	Yes / target	No / reference	10.84945
453	No / reference	Yes / target	Yes / target	10.31217
454	Yes / target	Yes / target	No / reference	8.31837
455	Yes / target	Yes / target	No / reference	8.23444
456	Yes / target	Yes / target	Yes / target	10.16308
457	Yes / target	Yes / target	No / reference	14.20555
458	No / reference	Yes / target	Yes / target	10.91508
459	No / reference	Yes / target	Yes / target	11.19690
460	No / reference	Yes / target	No / reference	9.63672
461	No / reference	Yes / target	Yes / target	10.47157
462	No / reference	Yes / target	Yes / target	12.44917
463	No / reference	Yes / target	No / reference	14.29715
464	No / reference	Yes / target	No / reference	11.43699

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
436	-.22540
437	1.04384
438	.55576
439	.80345
440	.08474
441	-1.05295
442	.00704
443	1.26046
444	-.68677
445	.99137
446	-.10754
447	.02622
448	-.79332
449	.60134
450	-.08176
451	-.62703
452	.15055
453	.68783
454	-.31837
455	-.23444
456	-1.16308
457	.79445
458	.08492
459	1.80310
460	.36328
461	.52843
462	1.55083
463	-.29715
464	.56301

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
465	11	11	11	1
466	8	9	8	2
467	11	10	9	1
468	14	14	13	2
469	13	13	12	1
470	13	13	12	2
471	12	13	12	2
472	12	12	11	2
473	16	14	14	1
474	10	10	8	1
475	11	10	11	1
476	14	12	13	3
477	8	10	8	1
478	11	12	10	1
479	8	7	7	2
480	10	9	9	1
481	10	9	9	1
482	11	9	10	1
483	9	9	10	1
484	11	9	10	2
485	8	7	7	1
486	11	11	10	2
487	10	9	10	1
488	10	7	9	3
489	9	7	9	3
490	10	8	9	1
491	10	9	11	1
492	9	7	8	2
493	10	8	10	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
465	0	6	16	1	1
466	1	9	18	1	2
467	0	0	15	3	1
468	0	1	16	2	2
469	0	1	15	2	2
470	0	0	16	4	4
471	0	4	15	3	3
472	1	2	16	2	2
473	0	0	16	2	2
474	0	4	16	2	1
475	0	2	15	1	3
476	0	0	15	2	2
477	0	2	16	2	1
478	0	11	15	3	3
479	3	0	16	1	1
480	0	4	17	2	2
481	1	0	19	2	3
482	0	2	17	2	1
483	0	0	15	1	1
484	0	1	16	2	2
485	0	6	16	2	2
486	0	0	17	2	2
487	1	1	16	2	2
488	2	6	18	3	2
489	1	6	19	1	1
490	1	0	18	1	1
491	1	4	18	1	1
492	1	12	19	1	1
493	0	2	16	2	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
465	2	5	Yes / target	Yes / target
466	1	5	Yes / target	No / reference
467	2	4	Yes / target	Yes / target
468	3	2	Yes / target	No / reference
469	3	4	Yes / target	Yes / target
470	1	3	Yes / target	Yes / target
471	1	1	Yes / target	No / reference
472	2	5	Yes / target	No / reference
473	3	4	Yes / target	No / reference
474	2	4	Yes / target	Yes / target
475	3	3	Yes / target	Yes / target
476	2	4	Yes / target	No / reference
477	1	5	Yes / target	No / reference
478	2	3	Yes / target	Yes / target
479	2	1	Yes / target	No / reference
480	1	5	Yes / target	No / reference
481	1	2	Yes / target	No / reference
482	3	3	Yes / target	No / reference
483	2	4	Yes / target	No / reference
484	3	1	Yes / target	No / reference
485	1	1	Yes / target	No / reference
486	2	4	Yes / target	No / reference
487	1	3	Yes / target	No / reference
488	2	2	Yes / target	No / reference
489	1	3	Yes / target	No / reference
490	2	4	Yes / target	Yes / target
491	2	2	Yes / target	No / reference
492	2	1	Yes / target	No / reference
493	1	3	Yes / target	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
465	No / reference	Yes / target	No / reference	10.99898
466	Yes / target	Yes / target	Yes / target	8.36197
467	Yes / target	Yes / target	No / reference	9.10404
468	No / reference	Yes / target	Yes / target	13.65149
469	Yes / target	Yes / target	No / reference	12.36287
470	Yes / target	Yes / target	No / reference	12.15311
471	No / reference	Yes / target	Yes / target	12.40152
472	No / reference	Yes / target	No / reference	11.07311
473	No / reference	Yes / target	No / reference	14.28931
474	Yes / target	Yes / target	Yes / target	8.44196
475	No / reference	Yes / target	Yes / target	11.13314
476	Yes / target	Yes / target	No / reference	13.24609
477	No / reference	Yes / target	Yes / target	8.24448
478	Yes / target	Yes / target	Yes / target	10.59617
479	No / reference	Yes / target	No / reference	6.65107
480	Yes / target	No / reference	No / reference	8.98278
481	Yes / target	No / reference	Yes / target	9.00393
482	No / reference	No / reference	No / reference	10.01944
483	No / reference	No / reference	No / reference	9.77901
484	No / reference	No / reference	Yes / target	10.21982
485	Yes / target	No / reference	No / reference	7.16107
486	No / reference	Yes / target	Yes / target	10.40057
487	Yes / target	Yes / target	Yes / target	9.91564
488	No / reference	No / reference	No / reference	8.53110
489	Yes / target	No / reference	No / reference	8.82058
490	No / reference	No / reference	Yes / target	8.52507
491	No / reference	No / reference	Yes / target	10.76256
492	Yes / target	Yes / target	Yes / target	8.48772
493	No / reference	Yes / target	No / reference	9.83835

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
465	.00102
466	-.36197
467	1.89596
468	.34851
469	.63713
470	.84689
471	-.40152
472	.92689
473	1.71069
474	1.55804
475	-.13314
476	.75391
477	-.24448
478	.40383
479	1.34893
480	1.01722
481	.99607
482	.98056
483	-.77901
484	.78018
485	.83893
486	.59943
487	.08436
488	1.46890
489	.17942
490	1.47493
491	-.76256
492	.51228
493	.16165

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
494	10	9	9	1
495	9	8	9	2
496	13	14	13	1
497	14	14	14	1
498	10	10	11	4
499	14	14	13	2
500	16	17	16	1
501	7	6	7	1
502	13	14	12	1
503	9	10	8	4
504	14	14	14	4
505	13	12	13	3
506	11	11	11	1
507	10	11	9	2
508	10	11	11	3
509	9	10	9	1
510	18	16	17	2
511	17	15	17	2
512	10	11	9	2
513	7	7	7	2
514	8	8	6	1
515	7	7	6	1
516	10	9	8	2
517	16	14	16	2
518	15	14	14	1
519	8	8	5	2
520	0	8	7	2
521	8	6	8	2
522	10	8	10	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
494	0	5	17	0	1
495	0	0	16	1	2
496	0	0	16	3	3
497	0	2	16	1	1
498	1	0	17	3	3
499	0	0	16	2	1
500	0	0	16	2	2
501	1	12	17	1	2
502	0	8	16	4	3
503	1	2	17	2	2
504	0	0	16	1	1
505	0	0	19	2	2
506	0	0	17	1	1
507	1	8	20	3	3
508	0	0	17	1	1
509	1	0	17	2	2
510	0	0	16	1	1
511	0	0	17	2	2
512	0	1	17	1	0
513	1	9	18	1	1
514	0	0	16	3	1
515	0	2	16	3	2
516	0	8	18	1	1
517	0	0	16	4	4
518	0	0	16	1	2
519	1	8	18	2	4
520	0	0	16	2	1
521	0	6	16	1	1
522	0	0	16	2	3

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
494	2	5	Yes / target	No / reference
495	1	3	Yes / target	No / reference
496	1	4	Yes / target	No / reference
497	1	4	Yes / target	No / reference
498	2	5	Yes / target	Yes / target
499	1	1	Yes / target	No / reference
500	1	5	Yes / target	No / reference
501	1	1	Yes / target	Yes / target
502	1	5	Yes / target	Yes / target
503	3	3	Yes / target	Yes / target
504	1	5	Yes / target	No / reference
505	1	1	Yes / target	No / reference
506	2	5	Yes / target	No / reference
507	2	3	Yes / target	No / reference
508	1	3	Yes / target	No / reference
509	3	5	Yes / target	Yes / target
510	3	1	Yes / target	No / reference
511	2	1	Yes / target	No / reference
512	2	4	Yes / target	No / reference
513	1	5	Yes / target	No / reference
514	1	1	Yes / target	No / reference
515	1	3	Yes / target	No / reference
516	2	3	Yes / target	No / reference
517	1	2	Yes / target	No / reference
518	2	2	Yes / target	No / reference
519	1	1	Yes / target	No / reference
520	2	2	Yes / target	Yes / target
521	3	5	Yes / target	No / reference
522	2	2	Yes / target	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
494	Yes / target	Yes / target	No / reference	9.39914
495	No / reference	No / reference	Yes / target	8.85801
496	Yes / target	No / reference	Yes / target	13.15103
497	No / reference	Yes / target	Yes / target	14.12541
498	Yes / target	Yes / target	No / reference	10.86775
499	Yes / target	Yes / target	Yes / target	13.53418
500	Yes / target	Yes / target	No / reference	16.26758
501	Yes / target	No / reference	Yes / target	6.86476
502	Yes / target	Yes / target	Yes / target	12.30815
503	No / reference	Yes / target	No / reference	8.37039
504	Yes / target	Yes / target	Yes / target	14.37182
505	Yes / target	Yes / target	Yes / target	13.44387
506	No / reference	Yes / target	Yes / target	11.19368
507	Yes / target	Yes / target	Yes / target	9.72288
508	Yes / target	Yes / target	No / reference	11.35029
509	No / reference	Yes / target	Yes / target	9.02280
510	No / reference	Yes / target	No / reference	17.40261
511	No / reference	Yes / target	No / reference	17.13724
512	Yes / target	Yes / target	Yes / target	9.69909
513	No / reference	Yes / target	Yes / target	7.03018
514	Yes / target	Yes / target	Yes / target	6.50593
515	Yes / target	Yes / target	Yes / target	6.33516
516	Yes / target	Yes / target	No / reference	8.70833
517	No / reference	Yes / target	Yes / target	15.93430
518	No / reference	Yes / target	Yes / target	14.35989
519	Yes / target	Yes / target	Yes / target	5.78596
520	No / reference	Yes / target	Yes / target	7.22311
521	Yes / target	Yes / target	Yes / target	8.33084
522	No / reference	Yes / target	Yes / target	10.09428

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
494	.60086
495	.14199
496	-.15103
497	-.12541
498	-.86775
499	.46582
500	-.26758
501	.13524
502	.69185
503	.62961
504	-.37182
505	-.44387
506	-.19368
507	.27712
508	-1.35029
509	-.02280
510	.59739
511	-.13724
512	.30091
513	-.03018
514	1.49407
515	.66484
516	1.29167
517	.06570
518	.64011
519	2.21404
520	-7.22311
521	-.33084
522	-.09428

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
523	8	8	8	2
524	6	5	6	4
525	8	7	9	2
526	16	15	14	3
527	14	13	14	1
528	10	10	9	3
529	9	9	9	1
530	11	11	11	1
531	9	7	10	1
532	10	10	10	2
533	8	9	7	2
534	16	14	15	2
535	12	11	12	1
536	10	9	11	2
537	14	13	14	4
538	12	12	13	1
539	11	11	11	3
540	10	9	10	2
541	11	9	11	1
542	11	11	9	2
543	12	10	11	3
544	8	9	9	1
545	12	12	11	1
546	8	8	9	2
547	16	13	15	2
548	11	10	11	1
549	11	11	10	2
550	18	17	18	2
551	13	12	13	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
523	0	4	16	4	4
524	0	2	18	4	4
525	0	2	16	3	4
526	0	0	17	4	4
527	0	1	17	4	1
528	0	0	16	2	2
529	0	5	17	2	2
530	0	1	16	4	4
531	0	8	17	3	3
532	0	0	17	1	1
533	0	2	16	2	1
534	0	0	16	2	1
535	0	0	16	4	4
536	0	11	15	1	2
537	0	8	15	2	2
538	0	11	15	2	1
539	0	2	16	2	2
540	0	8	16	4	1
541	0	5	17	3	2
542	0	0	17	2	2
543	0	1	16	4	4
544	3	2	17	4	4
545	0	2	17	1	3
546	1	8	17	3	4
547	0	0	17	4	4
548	0	0	16	4	1
549	0	2	17	1	1
550	0	0	17	4	2
551	0	0	16	2	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
523	1	3	Yes / target	No / reference
524	1	5	Yes / target	Yes / target
525	3	2	Yes / target	No / reference
526	1	5	Yes / target	Yes / target
527	1	5	Yes / target	No / reference
528	4	3	Yes / target	Yes / target
529	1	5	Yes / target	No / reference
530	2	5	Yes / target	No / reference
531	1	3	Yes / target	Yes / target
532	3	1	Yes / target	Yes / target
533	2	5	Yes / target	Yes / target
534	1	3	Yes / target	No / reference
535	1	5	Yes / target	Yes / target
536	3	5	Yes / target	Yes / target
537	3	5	Yes / target	Yes / target
538	1	5	Yes / target	Yes / target
539	1	5	Yes / target	No / reference
540	2	1	Yes / target	No / reference
541	2	1	Yes / target	No / reference
542	2	5	Yes / target	No / reference
543	2	5	Yes / target	No / reference
544	3	5	Yes / target	Yes / target
545	2	5	Yes / target	Yes / target
546	1	5	Yes / target	Yes / target
547	1	5	Yes / target	No / reference
548	1	2	Yes / target	Yes / target
549	1	3	Yes / target	No / reference
550	2	5	Yes / target	No / reference
551	2	5	Yes / target	Yes / target

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
523	Yes / target	Yes / target	Yes / target	8.31251
524	Yes / target	No / reference	Yes / target	5.82482
525	No / reference	Yes / target	No / reference	9.17138
526	Yes / target	Yes / target	Yes / target	14.22899
527	No / reference	Yes / target	Yes / target	13.81812
528	Yes / target	Yes / target	No / reference	9.65357
529	No / reference	Yes / target	Yes / target	9.09418
530	Yes / target	Yes / target	No / reference	11.21104
531	Yes / target	Yes / target	Yes / target	9.80255
532	Yes / target	Yes / target	Yes / target	10.55019
533	Yes / target	Yes / target	Yes / target	7.40687
534	Yes / target	Yes / target	Yes / target	15.18848
535	Yes / target	Yes / target	Yes / target	11.80586
536	No / reference	Yes / target	No / reference	11.00794
537	Yes / target	Yes / target	No / reference	14.34337
538	Yes / target	Yes / target	Yes / target	12.97664
539	No / reference	Yes / target	No / reference	11.06996
540	Yes / target	Yes / target	Yes / target	10.42284
541	Yes / target	Yes / target	No / reference	11.23009
542	No / reference	Yes / target	No / reference	9.40638
543	Yes / target	Yes / target	Yes / target	11.25726
544	No / reference	Yes / target	Yes / target	8.44435
545	No / reference	Yes / target	No / reference	11.15110
546	Yes / target	Yes / target	Yes / target	8.82507
547	Yes / target	Yes / target	Yes / target	14.97557
548	No / reference	Yes / target	Yes / target	10.69942
549	Yes / target	Yes / target	Yes / target	10.52264
550	No / reference	Yes / target	Yes / target	18.06038
551	Yes / target	Yes / target	Yes / target	13.05336

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
523	-.31251
524	.17518
525	-1.17138
526	1.77101
527	.18188
528	.34643
529	-.09418
530	-.21104
531	-.80255
532	-.55019
533	.59313
534	.81152
535	.19414
536	-1.00794
537	-.34337
538	-.97664
539	-.06996
540	-.42284
541	-.23009
542	1.59362
543	.74274
544	-.44435
545	.84890
546	-.82507
547	1.02443
548	.30058
549	.47736
550	-.06038
551	-.05336

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
552	13	13	14	2
553	10	9	9	2
554	12	11	11	1
555	10	10	11	1
556	13	13	14	3
557	11	9	10	1
558	10	7	9	2
559	10	8	13	1
560	13	12	12	1
561	10	10	9	1
562	10	10	9	2
563	12	11	13	2
564	0	7	0	1
565	10	11	9	1
566	9	10	10	1
567	9	9	7	1
568	0	4	0	1
569	9	6	11	1
570	8	4	8	2
571	8	7	8	1
572	9	8	9	1
573	7	5	5	2
574	10	7	9	1
575	10	8	11	1
576	10	10	11	1
577	11	9	10	1
578	11	10	9	2
579	10	8	9	2
580	9	9	10	1

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
552	0	0	17	3	2
553	2	2	19	1	1
554	0	4	17	1	0
555	0	3	17	1	1
556	0	5	16	1	2
557	0	4	16	1	2
558	3	2	17	3	1
559	0	0	17	2	2
560	1	0	18	1	0
561	0	0	17	1	1
562	0	6	18	1	1
563	0	0	16	2	2
564	1	0	17	2	2
565	0	2	16	3	2
566	0	0	16	1	1
567	1	2	18	1	1
568	1	0	18	3	2
569	3	4	19	3	2
570	2	9	18	3	3
571	0	6	16	2	2
572	3	4	19	2	1
573	2	8	16	3	2
574	0	9	17	1	1
575	1	12	20	1	1
576	0	8	18	4	3
577	0	8	18	3	2
578	1	8	19	1	1
579	1	4	17	3	3
580	0	0	18	1	3

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
552	2	1	Yes / target	Yes / target
553	1	4	Yes / target	Yes / target
554	1	5	Yes / target	Yes / target
555	2	4	Yes / target	No / reference
556	1	3	Yes / target	No / reference
557	1	5	Yes / target	Yes / target
558	2	5	Yes / target	No / reference
559	2	5	Yes / target	Yes / target
560	3	4	Yes / target	Yes / target
561	2	2	Yes / target	Yes / target
562	2	5	Yes / target	Yes / target
563	1	1	Yes / target	No / reference
564	1	5	Yes / target	Yes / target
565	2	5	Yes / target	Yes / target
566	2	5	Yes / target	Yes / target
567	2	5	Yes / target	Yes / target
568	1	5	Yes / target	Yes / target
569	2	3	Yes / target	Yes / target
570	1	3	Yes / target	Yes / target
571	2	4	Yes / target	Yes / target
572	2	5	Yes / target	Yes / target
573	2	1	Yes / target	No / reference
574	1	5	Yes / target	No / reference
575	2	4	Yes / target	Yes / target
576	1	2	Yes / target	No / reference
577	2	5	Yes / target	Yes / target
578	3	2	Yes / target	Yes / target
579	2	3	Yes / target	Yes / target
580	1	3	Yes / target	Yes / target

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
552	Yes / target	Yes / target	Yes / target	14.24039
553	Yes / target	No / reference	Yes / target	8.57827
554	Yes / target	Yes / target	No / reference	10.99175
555	No / reference	No / reference	Yes / target	10.96922
556	No / reference	Yes / target	Yes / target	14.22559
557	No / reference	Yes / target	No / reference	9.70812
558	No / reference	Yes / target	Yes / target	8.24827
559	No / reference	No / reference	No / reference	12.07599
560	No / reference	Yes / target	No / reference	11.91943
561	No / reference	Yes / target	Yes / target	9.26402
562	Yes / target	Yes / target	No / reference	9.39612
563	No / reference	Yes / target	No / reference	12.92832
564	Yes / target	Yes / target	No / reference	.55019
565	No / reference	Yes / target	Yes / target	9.18490
566	No / reference	Yes / target	Yes / target	9.96269
567	No / reference	No / reference	Yes / target	6.89058
568	No / reference	No / reference	Yes / target	-.14689
569	Yes / target	Yes / target	No / reference	9.93420
570	Yes / target	No / reference	Yes / target	7.12868
571	No / reference	Yes / target	Yes / target	7.93868
572	Yes / target	No / reference	Yes / target	8.25283
573	Yes / target	Yes / target	No / reference	5.07947
574	Yes / target	Yes / target	No / reference	9.00817
575	No / reference	No / reference	Yes / target	10.53482
576	No / reference	Yes / target	Yes / target	11.13675
577	No / reference	Yes / target	Yes / target	9.95557
578	No / reference	Yes / target	Yes / target	9.43663
579	Yes / target	Yes / target	Yes / target	8.97390
580	Yes / target	No / reference	Yes / target	9.87423

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
552	-1.24039
553	1.42173
554	1.00825
555	-.96922
556	-1.22559
557	1.29188
558	1.75173
559	-2.07599
560	1.08057
561	.73598
562	.60388
563	-.92832
564	-.55019
565	.81510
566	-.96269
567	2.10942
568	.14689
569	-.93420
570	.87132
571	.06132
572	.74717
573	1.92053
574	.99183
575	-.53482
576	-1.13675
577	1.04443
578	1.56337
579	1.02610
580	-.87423

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
581	10	8	9	1
582	8	6	8	2
583	7	6	8	1
584	0	8	6	1
585	11	10	11	1
586	8	8	7	3
587	0	8	8	2
588	8	7	6	2
589	9	8	10	1
590	10	7	10	1
591	7	7	8	2
592	14	12	13	2
593	13	11	12	1
594	14	12	13	2
595	18	18	18	2
596	17	17	17	1
597	18	17	18	2
598	0	9	0	2
599	11	10	11	1
600	14	12	13	1
601	14	12	13	1
602	10	8	8	2
603	13	11	12	3
604	0	5	0	2
605	10	9	10	2
606	0	5	0	1
607	18	18	18	4
608	12	11	11	2
609	11	8	10	2

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
581	1	4	19	1	1
582	2	2	18	1	2
583	0	0	19	1	1
584	1	0	18	2	2
585	0	0	17	0	0
586	0	5	17	3	1
587	0	0	17	4	2
588	1	3	18	2	2
589	0	0	17	4	1
590	0	0	17	1	2
591	2	3	18	1	1
592	0	2	18	2	2
593	0	0	17	3	3
594	0	0	18	1	2
595	0	0	18	4	4
596	0	3	18	4	4
597	0	0	17	4	2
598	1	0	18	2	2
599	0	8	18	1	2
600	0	5	18	4	4
601	0	4	17	1	1
602	0	4	18	2	2
603	0	0	18	2	2
604	0	0	18	4	2
605	1	2	18	1	1
606	1	0	19	1	1
607	0	0	17	4	2
608	0	5	17	2	1
609	0	2	18	1	1

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
581	3	5	Yes / target	Yes / target
582	2	5	Yes / target	No / reference
583	1	5	Yes / target	No / reference
584	2	3	Yes / target	No / reference
585	2	5	Yes / target	No / reference
586	2	3	Yes / target	No / reference
587	1	5	Yes / target	No / reference
588	1	4	Yes / target	No / reference
589	1	5	Yes / target	No / reference
590	1	3	Yes / target	No / reference
591	3	5	Yes / target	No / reference
592	2	1	Yes / target	No / reference
593	2	4	Yes / target	No / reference
594	2	4	Yes / target	No / reference
595	2	1	Yes / target	No / reference
596	1	5	Yes / target	Yes / target
597	2	4	Yes / target	No / reference
598	3	4	Yes / target	No / reference
599	2	1	Yes / target	Yes / target
600	3	1	Yes / target	Yes / target
601	3	4	Yes / target	Yes / target
602	2	2	Yes / target	No / reference
603	2	3	Yes / target	No / reference
604	1	5	Yes / target	No / reference
605	3	2	Yes / target	No / reference
606	2	2	Yes / target	No / reference
607	2	5	Yes / target	No / reference
608	2	2	Yes / target	No / reference
609	1	3	Yes / target	No / reference

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
581	No / reference	Yes / target	Yes / target	8.90569
582	Yes / target	Yes / target	No / reference	7.70434
583	Yes / target	No / reference	No / reference	7.72680
584	No / reference	No / reference	Yes / target	6.11712
585	No / reference	Yes / target	Yes / target	11.08136
586	No / reference	No / reference	No / reference	7.22701
587	Yes / target	Yes / target	Yes / target	8.12863
588	No / reference	Yes / target	Yes / target	6.08477
589	Yes / target	Yes / target	No / reference	9.72896
590	Yes / target	Yes / target	Yes / target	9.93077
591	Yes / target	Yes / target	No / reference	7.97041
592	Yes / target	Yes / target	Yes / target	13.53399
593	Yes / target	Yes / target	Yes / target	12.24085
594	Yes / target	Yes / target	Yes / target	13.40282
595	Yes / target	Yes / target	Yes / target	18.63574
596	Yes / target	Yes / target	Yes / target	17.09292
597	Yes / target	Yes / target	Yes / target	18.27285
598	No / reference	Yes / target	No / reference	1.26441
599	Yes / target	Yes / target	No / reference	11.34619
600	No / reference	Yes / target	Yes / target	13.27583
601	No / reference	No / reference	No / reference	12.88496
602	Yes / target	Yes / target	Yes / target	8.60835
603	Yes / target	Yes / target	Yes / target	12.45036
604	No / reference	Yes / target	Yes / target	.59219
605	Yes / target	No / reference	No / reference	10.14627
606	Yes / target	No / reference	No / reference	.65897
607	Yes / target	Yes / target	Yes / target	18.46621
608	No / reference	Yes / target	Yes / target	11.42826
609	Yes / target	Yes / target	No / reference	10.08563

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
581	1.09431
582	.29566
583	-.72680
584	-6.11712
585	-.08136
586	.77299
587	-8.12863
588	1.91523
589	-.72896
590	.06923
591	-.97041
592	.46601
593	.75915
594	.59718
595	-.63574
596	-.09292
597	-.27285
598	-1.26441
599	-.34619
600	.72417
601	1.11504
602	1.39165
603	.54964
604	-.59219
605	-.14627
606	-.65897
607	-.46621
608	.57174
609	.91437

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
610	12	11	11	2
611	0	8	0	2
612	15	14	14	3
613	11	10	11	2
614	10	10	10	2
615	12	12	12	2
616	15	15	14	2
617	14	14	13	1
618	18	19	17	3
619	15	16	15	2
620	13	13	12	2
621	15	15	14	2
622	13	13	13	2
623	9	8	10	2
624	16	15	16	3
625	9	8	8	1
626	10	10	10	1
627	0	7	5	2
628	10	9	10	1
629	12	10	11	3
630	9	7	8	1
631	17	15	17	3
632	12	10	11	3
633	9	7	8	2
634	14	13	14	2
635	16	16	16	2
636	9	8	9	2
637	19	17	18	2
638	0	7	7	1

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Number of past class failures	School absences	Student age	Mother education	Father education
610	0	0	18	1	2
611	3	0	19	1	1
612	0	5	18	2	2
613	1	4	17	4	3
614	0	0	18	3	3
615	0	2	17	4	4
616	0	0	17	3	2
617	0	2	18	1	1
618	0	0	18	1	1
619	0	0	18	1	2
620	0	6	18	3	3
621	0	4	17	4	4
622	0	0	17	1	2
623	0	0	18	1	3
624	0	0	18	4	4
625	1	0	17	1	1
626	0	0	18	2	3
627	0	0	18	4	4
628	0	3	18	1	2
629	0	8	17	2	2
630	0	4	17	1	2
631	0	0	18	4	4
632	0	4	18	1	1
633	1	4	19	1	1
634	0	1	18	4	4
635	0	1	18	3	3
636	0	10	17	3	1
637	0	4	18	4	4
638	0	0	18	2	1

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
610	2	4	Yes / target	No / reference
611	2	1	Yes / target	No / reference
612	2	4	Yes / target	No / reference
613	2	2	Yes / target	Yes / target
614	1	5	Yes / target	No / reference
615	2	5	Yes / target	No / reference
616	2	5	Yes / target	No / reference
617	2	3	Yes / target	Yes / target
618	2	4	Yes / target	No / reference
619	3	5	Yes / target	No / reference
620	2	3	Yes / target	No / reference
621	1	1	Yes / target	No / reference
622	2	3	Yes / target	No / reference
623	2	3	Yes / target	Yes / target
624	2	5	Yes / target	Yes / target
625	3	1	Yes / target	No / reference
626	2	4	Yes / target	No / reference
627	3	5	Yes / target	No / reference
628	3	3	Yes / target	Yes / target
629	1	3	Yes / target	No / reference
630	1	1	Yes / target	No / reference
631	2	1	Yes / target	No / reference
632	4	4	Yes / target	No / reference
633	2	3	Yes / target	No / reference
634	1	2	Yes / target	No / reference
635	1	1	Yes / target	No / reference
636	1	1	Yes / target	No / reference
637	1	2	Yes / target	Yes / target
638	2	5	Yes / target	Yes / target

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
610	Yes / target	No / reference	No / reference	11.25960
611	No / reference	No / reference	No / reference	.55932
612	No / reference	Yes / target	Yes / target	14.46919
613	No / reference	Yes / target	Yes / target	10.82848
614	Yes / target	Yes / target	No / reference	10.18063
615	No / reference	Yes / target	Yes / target	12.22783
616	Yes / target	Yes / target	No / reference	14.43299
617	Yes / target	Yes / target	Yes / target	13.47746
618	Yes / target	Yes / target	Yes / target	17.86330
619	No / reference	Yes / target	No / reference	15.54650
620	Yes / target	Yes / target	Yes / target	12.73875
621	Yes / target	Yes / target	Yes / target	14.62482
622	No / reference	Yes / target	No / reference	13.31883
623	No / reference	Yes / target	No / reference	9.89457
624	Yes / target	Yes / target	Yes / target	16.15526
625	No / reference	Yes / target	Yes / target	8.28716
626	Yes / target	Yes / target	Yes / target	10.43511
627	No / reference	Yes / target	Yes / target	5.57627
628	No / reference	No / reference	Yes / target	10.01962
629	Yes / target	Yes / target	No / reference	11.32734
630	No / reference	Yes / target	Yes / target	8.17770
631	No / reference	Yes / target	Yes / target	17.25219
632	No / reference	Yes / target	Yes / target	11.60203
633	No / reference	Yes / target	Yes / target	8.09636
634	No / reference	Yes / target	Yes / target	14.12925
635	Yes / target	Yes / target	Yes / target	16.51204
636	No / reference	Yes / target	Yes / target	9.21794
637	Yes / target	Yes / target	Yes / target	18.18502
638	No / reference	Yes / target	Yes / target	6.95301

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Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

	Unstandardized Residual
610	.74040
611	-.55932
612	.53081
613	.17152
614	-.18063
615	-.22783
616	.56701
617	.52254
618	.13670
619	-.54650
620	.26125
621	.37518
622	-.31883
623	-.89457
624	-.15526
625	.71284
626	-.43511
627	-5.57627
628	-.01962
629	.67266
630	.82230
631	-.25219
632	.39797
633	.90364
634	-.12925
635	-.51204
636	-.21794
637	.81498
638	-6.95301

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

		Outcome variable: final grade	First period grade	Second period grade	Weekly study time group
639		16	14	15	2
640		0	5	8	1
641		0	7	7	1
642		15	14	17	3
643		11	6	9	2
644		10	7	9	1
645		10	10	11	3
646		16	15	15	2
647		9	11	12	2
648		10	10	10	1
649		11	10	11	1
Total	N	649	649	649	649
	Mean	11.91	11.40	11.57	1.93
	Std. Deviation	3.231	2.745	2.914	.830
	Minimum	0	0	0	1
	Maximum	19	19	19	4

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

		Number of past class failures	School absences	Student age	Mother education	Father education
639		0	4	17	2	3
640		1	0	19	1	1
641		1	0	18	4	2
642		0	0	18	2	2
643		0	0	17	4	3
644		0	4	18	4	4
645		1	4	19	2	3
646		0	4	18	3	1
647		0	6	18	1	1
648		0	6	17	3	1
649		0	4	18	3	2
Total	N	649	649	649	649	649
	Mean	.22	3.66	16.74	2.51	2.31
	Std. Deviation	.593	4.641	1.218	1.135	1.100
	Minimum	0	0	15	0	0
	Maximum	3	32	22	4	4

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

		Home to school travel time	Current health status	School fixed effect dummy: 1 = MS, 0 = GP	Sex fixed effect dummy: 1 = male, 0 = female
639		2	3	Yes / target	Yes / target
640		2	5	Yes / target	Yes / target
641		2	3	Yes / target	Yes / target
642		2	4	Yes / target	No / reference
643		2	1	Yes / target	No / reference
644		3	5	Yes / target	No / reference
645		1	5	Yes / target	No / reference
646		1	1	Yes / target	No / reference
647		2	5	Yes / target	No / reference
648		2	2	Yes / target	Yes / target
649		3	5	Yes / target	Yes / target
Total	N	649	649	649	649
	Mean	1.57	3.54	.35	.41
	Std. Deviation	.749	1.446	.477	.492
	Minimum	1	1	No / reference	No / reference
	Maximum	4	5	Yes / target	Yes / target

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

		Address fixed effect dummy: 1 = urban, 0 = rural	Higher education intention fixed effect dummy: yes	Internet access fixed effect dummy: yes	Unstandardized Predicted Value
639		Yes / target	Yes / target	Yes / target	15.29056
640		No / reference	Yes / target	No / reference	7.35290
641		No / reference	Yes / target	No / reference	6.69396
642		No / reference	Yes / target	No / reference	16.94479
643		Yes / target	Yes / target	Yes / target	9.10281
644		No / reference	Yes / target	Yes / target	9.08965
645		No / reference	Yes / target	Yes / target	10.94189
646		Yes / target	Yes / target	Yes / target	15.49937
647		Yes / target	Yes / target	No / reference	12.34705
648		Yes / target	Yes / target	Yes / target	10.30738
649		No / reference	Yes / target	Yes / target	11.04237
Total	N	649	649	649	649
	Mean	.70	.89	.77	11.9060092
	Std. Deviation	.460	.308	.423	2.98574323
	Minimum	No / reference	No / reference	No / reference	-.14689
	Maximum	Yes / target	Yes / target	Yes / target	19.43140

Fixed Effects Reporting Guide
Model interpretation notes

Reporting table: outcome, predictors, fixed effect dummies, fitted values, and residuals

		Unstandardized Residual
639		.70944
640		-7.35290
641		-6.69396
642		-1.94479
643		1.89719
644		.91035
645		-.94189
646		.50063
647		-3.34705
648		-.30738
649		-.04237
Total	N	649
	Mean	.0000000
	Std. Deviation	1.23388700
	Minimum	-8.98396
	Maximum	5.18945