

# Supplement ii

## Details of the Difference in Differences Analyses

### S2.1 List of Abbreviations

WaveNum: This represents the DiD coefficient which presents the interaction effect between the treatment group and the specified survey wave. For example,  $\text{WaveNum} = 2 \times \text{TreatGroup}$  indicates how much better the treatment group did in the 2nd Wave, relative to the control group.

Num.Obs.: Number of observations used in the analysis.

R2: Coefficient of determination or R-squared, which indicates the proportion of variance in the dependent variable explained by the independent variables in the regression model. In simple terms, it is a measure of the explanatory power of the independent variables in interpreting changes in the dependent variable.

R2 Adj.: Adjusted R-squared, which adjusts the R-squared value for the number of predictors in the model.

R2 Within: R-squared within, which represents the extent of variance in the dependent variable explained by the independent variables within each group or category.

R2 Within Adj.: Adjusted R-squared within, which adjusts the R-squared within value by the number of predictors in the model within each group or category.

AIC: Akaike Information Criterion, which measures the relative quality of a statistical model for a given set of data. Lower AIC values indicate better-fitting models. These values are used in comparison with results from competing models to determine the model with the best fit for the data.

BIC: Bayesian Information Criterion, which is a value similar to AIC that measures the relative quality of the statistical model for a given set of data. Compared to the AIC, it penalises more complex models more heavily. Lower values here indicate better-fitting models.

RMSE: Root Mean Square Error, which represents the average deviation between predicted and observed outcomes from the analysis. A lower RMSE indicates a better fitting model that provides a more reliable and accurate estimates of the treatment effect.

Std.Errors: Standard errors of the coefficients estimated in the model.

FE: Fixed Effects, which indicates whether there was the inclusion of fixed effects in the regression model for specific categories such as W1\_ExperimentGroup, survey\_wave, and WaveNum.

p: p-value for the each analysis, which shows the significance of the estimated treatment effect.

## S2.2 Section 4.3.4.1

Self-reported interested in Quaternary Geoheritage—Overall

	Overall	By Wave
	0.070***	
WaveNum = 2 × TreatGroup		0.067***
WaveNum = 3 × TreatGroup		0.073***
Num.Obs.	225	225
R2	0.054	0.054
R2 Adj.	0.037	0.033
R2 Within	0.001	0.001
R2 Within Adj.	-0.004	-0.009
AIC	490.4	492.4
BIC	507.5	512.9
RMSE	0.70	0.70
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: survey_wave	X	
FE: WaveNum		X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

Self-reported interested in Quaternary Geoheritage —Separated by level of expertise

	Specialist	Non-Specialist
WaveNum = 2 × TreatGroup	0.056***	0.003***
WaveNum = 3 × TreatGroup	-0.056***	0.155***
Num.Obs.	108	117
R2	0.044	0.131
R2 Adj.	-0.003	0.092
R2 Within	0.001	0.003
R2 Within Adj.	-0.018	-0.015
AIC	204.2	261.4
BIC	220.3	278.0
RMSE	0.59	0.70
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: WaveNum	X	X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

## S2.2 Section 4.3.4.2

Self-reported level of knowledge about Quaternary Geoheritage—Overall

	Overall	By Wave
	-0.169***	
WaveNum = 2 × TreatGroup		-0.251***
WaveNum = 3 × TreatGroup		-0.087***
Num.Obs.	234	234
R2	0.211	0.212
R2 Adj.	0.197	0.195
R2 Within	0.002	0.003
R2 Within Adj.	-0.003	-0.006
AIC	660.6	662.4
BIC	667.9	683.1
RMSE	0.97	0.97
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: survey_wave	X	
FE: WaveNum		X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

Self-reported level of knowledge about Quaternary Geoheritage —Separated by level of expertise

	Specialist	Non-Specialist
WaveNum = 2 × TreatGroup	-0.302***	-0.106***
WaveNum = 3 × TreatGroup	-0.222***	-0.101***
Num.Obs.	117	117
R2	0.285	0.259
R2 Adj.	0.253	0.225
R2 Within	0.005	0.001
R2 Within Adj.	-0.013	-0.017
AIC	328.2	311.0
BIC	344.8	327.5
RMSE	0.93	0.87
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: WaveNum	X	X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

### **S2.3 Section 4.3.4.3**

Photo quiz on Quaternary geoheritage sites, score—Overall

	<b>Overall</b>	<b>By Wave</b>
	-0.117***	
WaveNum = 2 × TreatGroup		-0.422***
WaveNum = 3 × TreatGroup		0.189***
Num.Obs.	312	312
R2	0.111	0.121
R2 Adj.	0.100	0.107
R2 Within	0.001	0.012
R2 Within Adj.	-0.003	0.005
AIC	994	992.4
BIC	1012.7	1014.9
RMSE	1.17	1.16
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: survey_wave	X	
FE: WaveNum		X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

Photo quiz on Quaternary geoheritage sites, score—Separated by level of expertise

	<b>Specialist</b>	<b>Non-Specialist</b>
WaveNum = 2 × TreatGroup	-0.458***	-0.386***
WaveNum = 3 × TreatGroup	0.490***	-0.045***
Num.Obs.	144	168
R2	0.110	0.153
R2 Adj.	0.078	0.127
R2 Within	0.021	0.008
R2 Within Adj.	0.007	-0.004
AIC	500.6	472.7
BIC	518.4	491.5
RMSE	1.32	0.95
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE:		
W1_ExperimentGroup	X	X
FE: WaveNum	X	X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

## S2.4 Section 4.3.4.4

### Protection Priority for Quaternary Geoheritage Sites—Overall

	Overall	By Wave
	0.428***	
WaveNum = 2 × TreatGroup		0.537***
WaveNum = 3 × TreatGroup		0.319***
Num.Obs.	222	222
R2	0.050	0.050
R2 Adj.	0.032	0.028
R2 Within	0.004	0.004
R2 Within Adj.	-0.001	-0.005
AIC	869.6	871.4
BIC	886.6	891.8
RMSE	1.68	1.68
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: survey_wave	X	
FE: WaveNum		X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

### Protection Priority for Quaternary Geoheritage Sites—Separated by level of expertise

	Specialist	Non-Specialist
WaveNum = 2 × TreatGroup	0.227***	0.517***
WaveNum = 3 × TreatGroup	0.196***	0.308***
Num.Obs.	105	117
R2	0.029	0.091
R2 Adj.	-0.020	0.050
R2 Within	0.002	0.003
R2 Within Adj.	-0.0019	-0.015
AIC	359.9	488.7
BIC	375.8	505.2
RMSE	1.27	1.86
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: WaveNum	X	X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

## S2.5 Section 4.3.4.4

### Protection Priority for Quaternary Geoheritage Sites—Overall

	Overall	By Wave
	0.428***	
WaveNum = 2 × TreatGroup		0.537***
WaveNum = 3 × TreatGroup		0.319***
Num.Obs.	222	222
R2	0.050	0.050
R2 Adj.	0.032	0.028
R2 Within	0.004	0.004
R2 Within Adj.	-0.001	-0.005
AIC	869.6	871.4
BIC	886.6	891.8
RMSE	1.68	1.68
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: survey_wave	X	
FE: WaveNum		X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

### Protection Priority for Quaternary Geoheritage Sites—Separated by level of expertise

	Specialist	Non-Specialist
WaveNum = 2 × TreatGroup	0.227***	0.517***
WaveNum = 3 × TreatGroup	0.196***	0.308***
Num.Obs.	105	117
R2	0.029	0.091
R2 Adj.	-0.020	0.050
R2 Within	0.002	0.003
R2 Within Adj.	-0.019	-0.015
AIC	359.9	488.7
BIC	375.8	505.2
RMSE	1.27	1.86
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: WaveNum	X	X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

## S2.6 Section 4.3.5.1

Self-reported interest in the geocultural relationship—Overall

	Overall	By Wave
	0.261***	
WaveNum = 2 × TreatGroup		0.165***
WaveNum = 3 × TreatGroup		0.357***
Num.Obs.	225	225
R2	0.045	0.048
R2 Adj.	0.028	0.026
R2 Within	0.008	0.011
R2 Within Adj.	0.003	0.002
AIC	488.5	489.9
BIC	505.6	510.3
RMSE	0.70	0.70
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: survey_wave	X	
FE: WaveNum		X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

Self-reported interest in the geocultural relationship—Separated by level of expertise

	Specialist	Non-Specialist
WaveNum = 2 × TreatGroup	0.067***	0.193***
WaveNum = 3 × TreatGroup	0.167***	0.562***
Num.Obs.	114	111
R2	0.011	0.105
R2 Adj.	-0.035	0.063
R2 Within	0.003	0.023
R2 Within Adj.	-0.015	0.004
AIC	359.9	488.7
BIC	375.8	505.2
RMSE	1.27	1.86
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: WaveNum	X	X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

## S2.7 Section 4.3.5.2

Self-reported knowledge in the geocultural relationship—Overall

	Overall	By Wave
	0.037***	
WaveNum = 2 × TreatGroup		-0.007***
WaveNum = 3 × TreatGroup		0.080***
Num.Obs.	165	165
R2	0.07	0.041
R2 Adj.	0.046	0.041
R2 Within	0	0.001
R2 Within Adj.	-0.006	-0.011
AIC	298.3	300.2
BIC	313.9	318.8
RMSE	0.58	0.58
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: survey_wave	X	
FE: WaveNum		X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

Self-reported knowledge in the geocultural relationship—Separated by level of expertise

	Specialist	Non-Specialist
WaveNum = 2 × TreatGroup	-0.091***	0.011***
WaveNum = 3 × TreatGroup	0	0.135***
Num.Obs.	66	99
R2	0.205	0.093
R2 Adj.	0.138	0.044
R2 Within	0.002	0.003
R2 Within Adj.	-0.032	-0.019
AIC	114.9	179.6
BIC	128	195.1
RMSE	0.53	0.56
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: WaveNum	X	X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01



### **S2.7 Section 4.3.5.3**

Quiz on geocultural relationship, score—Overall

	<b>Overall</b>	<b>By Wave</b>
	-0.008***	
WaveNum = 2 × TreatGroup		0.026***
WaveNum = 3 × TreatGroup		-0.043***
Num.Obs.	312	312
R2	0.044	0.044
R2 Adj.	0.031	0.028
R2 Within	0.000	0.000
R2 Within Adj.	-0.003	-0.006
AIC	908.4	910.3
BIC	927.1	932.8
RMSE	1.02	1.02
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: survey_wave	X	
FE: WaveNum		X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

Quiz on geocultural relationship, score—Separated by level of expertise

	<b>Specialist</b>	<b>Non-Specialist</b>
WaveNum = 2 × TreatGroup	-0.098***	0.124***
WaveNum = 3 × TreatGroup	-0.133***	0.038***
Num.Obs.	144	168
R2	0.065	0.039
R2 Adj.	0.031	0.009
R2 Within	0.001	0.001
R2 Within Adj.	-0.014	-0.012
AIC	431.0	488.0
BIC	448.8	506.7
RMSE	1.04	1.00
Std.Errors	by: W1_ExperimentGroup	by: W1_ExperimentGroup
FE: W1_ExperimentGroup	X	X
FE: WaveNum	X	X

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01