Supplementary Materials: School Facilities and Sustainability-Related Concepts: A Study of Hellenic Secondary School Principals', Teachers', Pupils' and Parents' Responses

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The following supplementary materials to the above-titled article consist of 13 Tables: Tables S1 to Tables S13, as listed in the article. Tables S1–S9 are Crosstabulations of survey variables and the results of Chi-square tests of independence conducted for the variables. These particular results are cases in which dependency was found between variables and are reported and discussed in the main text of the article. Tables S10–S13 are the four Rotated Component Matrices of PCA, conducted respectively for the four school user groups: principals, teachers, pupils and parents.

Table S1. DSBA* Quality of School Building and materials Crosstabulation, Chi-square tests & Symmetric Measures: Principals.

		Quality of School Building and Materials			
DSBA		**Bad**	**Fair**	**Good**	**Total**
Old	Count	4	29	19	52
	Exp. Count	4.8	21.4	25.8	52.0
	Residual	−0.8	7.6	−6.8	
New	Count	8	24	45	77
	Exp. Count	7.2	31.6	38.2	77.0
	Residual	0.8	−7.6	6.8	
Total	Count	12	53	64	129
	Exp. Count	12.0	53.0	64.0	129.0
Chi-square Tests & Symmetric Measures					
		Value	**df**	**Asymp. Sig. (2-sided)**	
Pearson Chi-square		7.816 [1]	2	0.020	
Likelihood Ratio		7.830	2	0.020	
Phi		0.246	-	0.020	
Cramer's V		0.246	-	0.020	
n of valid cases		129			

[1] 1 cell (16.7%) has expected count less than 5. The minimum expected count is 4.84.

Table S2. DSBA* Quality of School Building and materials Crosstabulation, Chi-square tests & Symmetric Measures: Teachers.

		Quality of School Building And Materials					
DSBA		**Unacceptably Bad**	**Bad**	**Fair**	**Good**	**Very good**	**Total**
Old	Count	8	11	45	46	0	110
	Exp. Count	6.1	6.5	40.2	47.1	10.0	110.0
	Residual	1.9	4.5	4.8	−1.1	−10.0	
New	Count	8	6	60	77	26	177
	Exp. Count	9.9	10.5	64.8	75.9	16.0	177.0
	Residual	−1.9	−4.5	−4.8	1.1	10.0	
Total	Count	16	17	105	123	26	287
	Exp. Count	16.0	17.0	105.0	123.0	26.0	287.0

Chi-square Tests & Symmetric Measures			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-square	23.041 [1]	4	0.000
Likelihood Ratio	31.798	4	0.000
Phi	0.283	-	0.000
Cramer's V	0.283	-	0.000
n of valid cases	287		

[1] 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.13.

Table S3. DSBA* Quality of School Building and materials Crosstabulation, Chi-square tests & Symmetric Measures: Pupils.

		Quality of School Building and Materials					
DSBA		**Unacceptably Bad**	**Bad**	**Fair**	**Good**	**Very Good**	**Total**
Old	Count	33	34	125	88	20	300
	Exp. Count	19.2	26.6	108.9	114.4	30.9	300.0
	Residual	13.8	7.4	16.1	−26.4	−10.9	
New	Count	16	34	153	204	59	466
	Exp. Count	29.8	41.4	169.1	177.6	48.1	466.0
	Residual	−13.8	−7.4	−16.1	26.4	10.9	
Total	Count	49	68	278	292	79	766
	Exp. Count	49.0	68.0	278.0	292.0	19.0	766.0

Chi-square Tests & Symmetric Measures			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-square	39.956 [1]	4	0.000
Likelihood Ratio	40.088	4	0.000
Phi	0.228	-	0.000
Cramer's V	0.228	-	0.000
n of valid cases	766		

[1] 0 cells (0.0%) have expected count less than 5. The minimum expected count is 19.19.

Table S4. DSBA * Quality of School Building and materials Crosstabulation, Chi-square tests & Symmetric Measures: Parents/Guardians.

		School Building Quality and Materials						
DSBA		Unacceptably Bad	Bad	Fair	Good	Very Good	I don't Know	Total
Old	Count	19	31	109	86	16	11	272
	Exp. Count	14.9	21.9	83.8	97.1	38.0	16.4	272.0
	Residual	4.1	9.1	25.2	−11.1	−22.0	−5.4	
New	Count	19	25	105	162	81	31	423
	Exp. Count	23.1	34.1	130.2	150.9	59.0	25.6	423.0
	Residual	−4.1	−9.1	−25.2	11.1	22.0	5.4	
Total	Count	38	56	214	248	97	42	695
	Exp. Count	38.0	56.0	214.0	248.0	97.0	42.0	695.0

Chi-square Tests & Symmetric Measures			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-square	46.475 [1]	5	0.000
Likelihood Ratio	48.839	5	0.000
Phi	0.259	-	0.000
Cramer's V	0.259	-	0.000
n of valid cases	695		

[1] 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.87.

Table S5. DSBA * Importance of selection and use in schools of materials friendly to the environment and health Crosstabulation, Chi-square tests & Symmetric Measures: Pupils.

		Importance of Selection & Use in School of Materials Friendly to Environment and Health					
DSBA		Slightly Important	Fairly Important	Very Important	Extremely Important	I don't know	Total
Old	Count	6	33	89	165	7	300
	Exp. Count	3.9	23.1	83.8	180.9	8.2	300.0
	Residual	2.1	9.9	5.2	−15.9	−1.2	
New	Count	4	26	125	297	14	466
	Exp. Count	6.1	35.9	130.2	281.1	12.8	466.0
	Residual	−2.1	−9.9	−5.2	15.9	1.2	
Total	Count	10	59	214	462	21	766
	Exp. Count	10.0	59.0	214.0	462.0	21	766.0

Chi-square Tests & Symmetric Measures			
	Value	df	As. Sig. (2-sided)
Pearson Chi-Square	11.920 [1]	4	0.018
Likelihood Ratio	11.683	4	0.020
Phi	0.125	-	0.018
Cramer's V	0.125	-	0.018
n of valid cases	766		

[1] 1 cell (10.0%) has expected count less than 5. The minimum expected count is 3.92.

Table S6. TIRZ * More efficient and enhanced lighting Crosstabulation, Chi-square tests & Symmetric Measures: Parents/Guardians.

		More Efficient and Enhanced Lighting					
TIRZ		**Slightly Important**	**Fairly Important**	**Very Important**	**Extremely Important**	**I don't Know**	**Total**
Zone A	Count	1	28	33	49	6	117
	Exp. Count	4.9	16.7	31.3	61.5	2.5	117.0
	Residual	−3.9	11.3	1.7	−12.5	3.5	
Zone B	Count	21	51	93	246	4	415
	Exp. Count	17.5	59.3	111.2	218.1	9.0	415.0
	Residual	3.5	−8.3	−18.2	27.9	−5.0	
Zone C	Count	11	33	84	117	7	252
	Exp. Count	10.6	36.0	67.5	132.4	5.5	252.0
	Residual	0.4	−3.0	16.5	−15.4	1.5	
Total	Count	33	112	210	412	17	784
	Exp. Count	33.0	112.0	210.0	412.0	17.0	784.0

Chi-square Tests & Symmetric Measures	**Value**	**df**	**As. Sig. (2-sided)**
Pearson Chi-Square	35.814 [1]	8	0.000
Likelihood Ratio	35.448	8	0.000
Phi	0.214	-	0.000
Cramer's V	0.151	-	0.000
N of valid cases	784		

[1] 2 cells (13.3%) have expected count less than 5. The minimum expected count is 2.54.

Table S7. DSBA * Improved acoustics/Noise protection Crosstabulation, Chi-square tests & Symmetric Measures: Pupils.

		Improved Acoustics/Noise Protection						
DSBA		**Unimportant**	**Slightly Important**	**Fairly Important**	**Very Important**	**Extremely Important**	**I don't Know**	**Total**
Old	Count	2	19	62	84	123	1	291
	Exp. Count	6.2	15.1	64.3	94.2	107.7	3.5	291.0
	Residual	−4.2	3.9	−2.3	−10.2	15.3	−2.5	
New	Count	14	20	104	159	155	8	460
	Exp. Count	9.8	23.9	101.7	148.8	170.3	5.5	460.0
	Residual	4.2	−3.9	2.3	10.2	−15.3	2.5	
Total	Count	16	39	166	243	278	9	751
	Exp. Count	16.0	39.0	166.0	243.0	278.0	9.0	751.0

Chi-square Tests & Symmetric Measures	**Value**	**df**	**As. Sig. (2-sided)**
Pearson Chi-square	14.639 [1]	5	0.012
Likelihood Ratio	15.954	5	0.007
Phi	0.140	-	0.012
Cramer's V	0.140	-	0.012
n of valid cases	751		

[1] 1 cell (8.3%) has expected count less than 5. The minimum expected count is 3.49.

Table S8. TIRZ* Better air quality Crosstabulation, Chi-square tests & Symmetric Measures: Pupils.

		Better Air Quality				
TIRZ		**Slightly Important**	**Fairly Important**	**Very Important**	**Extremely Important**	**Total**
Zone A	Count	2	22	36	75	135
	Exp. Count	1.1	13.4	40.5	80.0	135.0
	Residual	0.9	8.6	−4.5	−5.0	
Zone B	Count	4	46	118	285	453
	Exp. Count	3.6	44.9	135.8	268.0	453.0
	Residual	0.4	1.1	−17.8	16.4	
Zone C	Count	1	19	109	160	289
	Exp. Count	2.3	28.7	86.7	171.4	289.0
	Residual	−1.3	−9.7	22.3	−11.4	
Total	Count	7	87	263	520	877
	Exp. Count	7.0	87.0	263.0	520.0	877.0

Chi-square Tests & Symmetric Measures	**Value**	**DF**	**As. Sig. (2-sided)**
Pearson Chi-square	21.059 [1]	6	0.002
Likelihood Ratio	20.329	6	0.002
Phi	0.155	-	0.002
Cramer's V	0.110	-	0.002
N of valid cases	877		

[1] 3 cells (25.0%) have expected count less than 5. The minimum expected count is 1.08.

Table S9. TIRZ* Water efficiency Crosstabulation, Chi-square tests & Symmetric Measures: Pupils.

		Water efficiency						
TIRZ		**Unimportant**	**Slightly Important**	**Fairly Important**	**Very Important**	**Extremely Important**	**I don't Know**	**Total**
Zone A	Count	12	11	32	37	36	9	137
	Exp. Count	5.7	14.1	33.3	34.4	44.1	5.4	137.0
	Residual	6.3	−3.1	−1.3	2.6	−8.1	3.6	
Zone B	Count	18	47	104	123	151	15	458
	Exp. Count	19.1	47.1	111.3	114.9	147.5	18.1	458.0
	Residual	−1.1	−0.1	−7.3	8.1	3.5	−3.1	
Zone C	Count	7	33	79	62	98	11	290
	Exp. Count	12.1	29.8	70.5	72.7	93.4	11.5	290.0
	Residual	−5.1	3.2	8.5	−10.7	4.6	−0.5	
Total	Count	37	91	215	222	285	35	885
	Exp. Count	37.0	91.0	215.0	222.0	285.0	35.0	885.0

Chi-square Tests & Symmetric Measures	**Value**	**df**	**As. Sig. (2-sided)**
Pearson Chi-square	18.769 [1]	10	0.043
Likelihood Ratio	17.316	10	0.068
Phi	0.146	-	0.043
Cramer's V	0.103	-	0.043
n of valid cases	885		

[1] 0 cells (0.0%) has expected count less than 5. The minimum expected count is 5.42.

Table S10. PCA of Principals' school-environment desired outcomes: Rotated Component Matrix.

Desired Outcome	Component 1	Component 2	Component 3
A. Better air quality	0.230	0.183	0.904
B. Toxic-products/substances elimination	0.000	0.799	0.391
C. Better long-term maintenance	0.674	0.494	0.124
D. Improved thermal comfort (cool in summer, warm in winter)	0.608	0.645	−0.093
E. More efficient and enhanced lighting	0.501	0.698	0.137
F. Energy efficiency	0.434	0.694	0.106
G. Water efficiency	0.703	0.262	0.387
H. Improved acoustics/ Noise protection	0.775	0.272	0.244
I. More spacious, natural and attractive environment	0.694	0.213	0.274
J. Innovative use of whole school as teaching-tool	0.855	0.163	0.002

Table S11. PCA of Teachers' school-environment desired outcomes: Rotated Component Matrix.

Desired Outcome	Component 1	Component 2	Component 3
A. Better air quality	0.236	0.257	0.765
B. Toxic-products/substances elimination	0.122	0.054	0.865
C. Better long-term maintenance	0.649	0.334	0.145
D. Improved thermal comfort (cool in summer, warm in winter)	0.827	0.118	0.109
E. More efficient and enhanced lighting	0.859	0.079	0.141
F. Energy efficiency	0.349	0.784	0.034
G. Water efficiency	0.171	0.821	0.325
H. Improved acoustics/ Noise protection	0.650	0.340	0.383
I. More spacious, natural and attractive environment	0.680	0.440	0.116
J. Innovative use of whole school as teaching-tool	0.639	0.327	0.207

Table S12. PCA of Pupils' school-environment desired outcomes: Rotated Component Matrix.

Desired Outcome	Comp. 1	Comp. 2	Comp. 3	Comp. 4
A. Better air quality	0.304	0.114	0.734	0.084
B. Toxic-products/substances elimination	0.057	0.141	0.842	0.058
C. Better long-term maintenance	0.229	0.213	0.511	0.381
D. Improved thermal comfort (cool in summer, warm in winter)	0.768	0.022	0.260	0.117
E. More efficient and enhanced lighting	0.729	0.302	0.133	0.195
F. Energy efficiency	0.218	0.877	0.172	0.107
G. Water efficiency	0.168	0.887	0.166	0.113
H. Improved acoustics/ Noise protection	0.652	0.295	0.122	0.260
I. More spacious, natural and attractive environment	0.411	0.064	0.130	0.727
J. Innovative use of whole school as teaching-tool	0.098	0.131	0.100	0.888

Table S13. PCA of Parents'/Guardians' school-environment desired outcomes: Rotated Component Matrix.

Desired Outcome	Comp. 1	Comp. 2	Comp. 3
A. Better air quality	0.334	0.208	0.762
B. Toxic-products/substances elimination	0.174	0.142	0.855
C. Better long-term maintenance	0.553	0.353	0.116
D. Improved thermal comfort (cool in summer, warm in winter)	0.673	0.214	0.354
E. More efficient and enhanced lighting	0.702	0.358	0.297
F. Energy efficiency	0.317	0.857	0.202
G. Water efficiency	0.283	0.874	0.180
H. Improved acoustics/ Noise protection	0.736	0.273	0.208
I. More spacious, natural and attractive environment	0.813	0.121	0.176
J. Innovative use of whole school as teaching-tool	0.746	0.238	0.166