

Table S1 Model-averaged parameter estimates (fixed effects) predicting implementation intensity of science class with nature activity.

Variable	Elementary school teachers			Lower secondary school teachers		
	Estimate	SE	p-value	Estimate	SE	p-value
<u>Time spent for whole of this unit</u>						
Frequency of direct experiences of nature during childhood	0.04	0.05	0.42	0.05	0.06	0.42
Nature relatedness	0.07	0.05	0.18	0.08	0.06	0.18
Knowledge of species name	0.14	0.05	0.01	0.18	0.06	0.00
University Education	0.03	0.05	0.60	0.01	0.06	0.82
Teaching career	0.10	0.05	0.07	-0.01	0.06	0.82
Gender (male compared with female)	-0.05	0.10	0.61	-0.19	0.13	0.15
Greenspace within school	0.00	0.06	0.99	-0.01	0.05	0.80
Degree of urbanization of school	-0.02	0.06	0.74	-0.03	0.06	0.56
<u>Time spent for outdoor learning</u>						
Frequency of direct experiences of nature during childhood	0.03	0.04	0.46	0.02	0.03	0.54
Nature relatedness	0.08	0.03	0.02	0.05	0.03	0.13
Knowledge of species name	0.05	0.04	0.16	0.04	0.03	0.23
University Education	0.01	0.03	0.73	0.04	0.04	0.21
Teaching career	-0.04	0.04	0.30	-0.03	0.03	0.44
Gender (male compared with female)	0.20	0.07	0.00	-0.02	0.08	0.77
Greenspace within school	0.05	0.04	0.20	0.03	0.03	0.23
Degree of urbanization of school	-0.08	0.04	0.07	-0.02	0.03	0.57
<u>Frequency of recommendation to students to observe or touch insects and plants</u>						
Frequency of direct experiences of nature during childhood	0.01	0.04	0.74	0.10	0.05	0.04
Nature relatedness	0.16	0.04	0.00	0.17	0.05	0.00
Knowledge of species name	0.01	0.04	0.72	0.08	0.05	0.13
University Education	0.01	0.04	0.70	0.10	0.05	0.05
Teaching career	-0.02	0.04	0.73	-0.01	0.05	0.81
Gender (male compared with female)	0.07	0.08	0.39	0.16	0.11	0.16
Greenspace within school	0.13	0.05	0.01	0.06	0.04	0.15
Degree of urbanization of school	0.04	0.05	0.51	-0.04	0.05	0.46
<u>Frequency of explanation to students about ecology of insects and plants</u>						
Frequency of direct experiences of nature during childhood	-0.03	0.06	0.61	0.15	0.06	0.01
Nature relatedness	0.27	0.06	0.00	0.14	0.06	0.02
Knowledge of species name	0.00	0.06	0.94	0.12	0.06	0.05
University Education	0.10	0.06	0.06	0.25	0.06	0.00
Teaching career	-0.13	0.06	0.03	0.01	0.06	0.85

Gender (male compared with female)	0.30	0.11	0.01	0.05	0.14	0.73
Greenspace within school	0.21	0.06	0.00	0.06	0.05	0.25
Degree of urbanization of school	0.24	0.06	0.00	-0.07	0.06	0.22

Frequency of usage of specimens of organism

Frequency of direct experiences of nature during childhood	-0.01	0.07	0.87	-0.05	0.09	0.59
Nature relatedness	0.28	0.07	0.00	0.23	0.09	0.01
Knowledge of species name	0.14	0.07	0.04	0.14	0.09	0.13
University Education	0.01	0.07	0.86	0.09	0.09	0.33
Teaching career	-0.07	0.08	0.34	0.06	0.09	0.52
Gender (male compared with female)	0.25	0.13	0.06	-0.32	0.20	0.10
Greenspace within school	0.11	0.08	0.14	0.14	0.08	0.08
Degree of urbanization of school	0.22	0.08	0.01	0.01	0.09	0.91

Frequency of usage of movie about organisms

Frequency of direct experiences of nature during childhood	0.10	0.07	0.14	0.04	0.07	0.59
Nature relatedness	0.09	0.06	0.15	0.02	0.07	0.82
Knowledge of species name	-0.10	0.07	0.12	0.04	0.08	0.61
University Education	-0.03	0.06	0.61	0.13	0.08	0.10
Teaching career	-0.29	0.07	0.00	0.08	0.07	0.25
Gender (male compared with female)	0.01	0.12	0.94	0.22	0.17	0.19
Greenspace within school	0.08	0.08	0.27	0.04	0.06	0.49
Degree of urbanization of school	0.14	0.09	0.10	-0.03	0.07	0.65
