

ANNEX

Annex A

TALIS 2018 scales used in the study

Response options for STAKE, STUD, DISC, TEAM, JSENV: “Strongly disagree”, “Disagree”, “Agree”, “Strongly agree”.

Response options for WELS: “Not at all”, “To some extent”, “Quite a bit”, “A lot”.

JSENV: Job satisfaction with work environment (subscale)

TT3G53: We would like to know how you generally feel about your job. How strongly do you agree or disagree with the following statements?

TT3G53C I would like to change to another school if that were possible (item was reverse coded).

TT3G53E I enjoy working at this school.

TT3G53G I would recommend this school as a good place to work.

TT3G53J All in all, I am satisfied with my job.

WELS: Workplace well-being and stress

TT3G51: In your experience as a teacher at this school, to what extent do the following occur?

TT3G51A I experience stress in my work.

TT3G51B My job leaves me time for my personal life (item was reverse coded).

TT3G51C My job negatively impacts my mental health.

TT3G51D My job negatively impacts my physical health.

STAKE: Participation among stakeholders, teachers

TT3G48: How strongly do you agree or disagree with these statements, as applied to this school?:

TT3G48A: This school provides staff with opportunities to actively participate in school decisions.

TT3G48B This school provides parents or guardians with opportunities to actively participate in school decisions.

TT3G48C This school provides students with opportunities to actively participate in school decisions.

TT3G48D This school has a culture of shared responsibility for school issues.

TT3G48E There is a collaborative school culture which is characterised by mutual support.

STUD: Teacher – student relations

TT3G49: How strongly do you agree or disagree with the following statements about what happens in this school?

TT3G49A Teachers and students usually get on well with each other.

TT3G49B Most teachers believe that the students’ well-being is important.

TT3G49C Most teachers are interested in what students have to say.

TT3G49D If a student needs extra assistance, the school provides it.

DISC: Teachers' perceived disciplinary climate

TT3G41: How strongly do you agree or disagree with the following statements about this <target class>?

TT3G41A When the lesson begins, I have to wait quite a long time for students to quieten down.

TT3G41B Students in this class take care to create a pleasant learning atmosphere (item was reverse coded).

TT3G41C I lose quite a lot of time because of students interrupting the lesson.

TT3G41D There is much disruptive noise in this classroom.

TEAM: Team innovativeness

TT3G32: Thinking about the teachers in this school, how strongly do you agree or disagree with the following statements.

TT3G32A Most teachers in this school strive to develop new ideas for teaching and learning.

TT3G32B Most teachers in this school are open to change.

TT3G32C Most teachers in this school search for new ways to solve problems.

TT3G32D Most teachers in this school provide practical support to each other for the application of new ideas.

Annex B

Percentages of teachers by school SES across countries with standard errors (SE)

% of teachers in schools (SE):	BGR	HRV	EST	HUN	LTU	ROU
low-SES	23.1 (6.1)	10.8 (1.9)	4.2 (1.3)	20.0 (2.9)	7.9 (1.5)	19.9 (1.4)
medium-SES	25.5 (5.8)	31.2 (3.0)	23.7 (3.3)	21.8 (1.6)	33.6 (2.3)	27.3 (2.7)
high-SES	51.4 (2.8)	58.0 (2.8)	72.2 (3.4)	58.1 (3.5)	58.5 (2.4)	52.8 (2.1)

BGR = Bulgaria, HRV = Croatia, EST = Estonia, HUN = Hungary, LTU = Lithuania, ROU = Romania

Annex C

Intraclass correlation coefficients of selected scales by countries

	BGR	HRV	EST	HUN	LTU	ROU
JSENV	0.168	0.102	0.130	0.169	0.107	0.110
WELS	0.122	0.035	0.045	0.067	0.066	0.075
DISC	0.146	0.052	0.065	0.036	0.056	0.077
STUD	0.095	0.057	0.094	0.127	0.088	0.074
STAKE	0.136	0.107	0.108	0.138	0.093	0.082
TEAM	0.094	0.104	0.102	0.105	0.059	0.070

Note: JSENV = job satisfaction with work environment, WELS = workplace well-being and stress, DISC = teachers perceived disciplinary climate, STUD = teacher-student relations, STAKE = participation among stakeholders, TEAM = team innovativeness

BGR = Bulgaria, HRV = Croatia, EST = Estonia, HUN = Hungary, LTU = Lithuania, ROU = Romania

Annex D

Missing values – percentages of teachers with missing values for items included in the scales

	BGR	HRV	EST	HUN	LTU	ROU
JSENV	1.6	2.9	2.6	2.2	0.9	1.3
WELS	1.1	2.4	2.0	1.7	0.6	0.8
DISC	2.8	13.0	14.4	13.8	6.1	17.6
STUD	1.5	2.5	2.1	1.7	0.6	0.9
STAKE	1.3	2.4	2.1	2.0	0.7	0.9
TEAM	0.3	1.9	1.9	1.4	0.5	0.8

Note: JSENV = job satisfaction with work environment, WELS = workplace well-being and stress, DISC = teachers perceived disciplinary climate, STUD = teacher-student relations, STAKE = participation among stakeholders, TEAM = team innovativeness
BGR = Bulgaria, HRV = Croatia, EST = Estonia, HUN = Hungary, LTU = Lithuania, ROU = Romania

Annex E

Coefficient of determination (R^2), standard error (SE) and p-value of the dependent variables

	JSENV			WELS		
	R^2	SE	p	R^2	SE	p
BGR	0.401	0.030	0.000	0.098	0.011	0.000
HRV	0.466	0.024	0.000	0.103	0.014	0.000
EST	0.397	0.023	0.000	0.065	0.008	0.000
HUN	0.232	0.010	0.000	0.061	0.007	0.000
LTU	0.252	0.012	0.000	0.107	0.010	0.000
ROU	0.203	0.010	0.000	0.107	0.010	0.000

Note: JSENV = job satisfaction with work environment, WELS = workplace well-being and stress
BGR = Bulgaria, HRV = Croatia, EST = Estonia, HUN = Hungary, LTU = Lithuania, ROU = Romania

Annex F

Results for the standardized direct, indirect and total effects for the developed model

	BGR			HRV			EST			HUN			LTU			ROU		
	β	SE	p	β	SE	p	β	SE	p	β	SE	p	β	SE	p	β	SE	p
<i>Standardized direct effect</i>																		
WELS $\rightarrow$ JSENV	-0.362	0.018	0.000	-0.354	0.023	0.000	-0.356	0.018	0.000	-0.265	0.010	0.000	-0.250	0.010	0.000	-0.226	0.009	0.000
DISC $\rightarrow$ JSENV	-0.080	0.015	0.000	-0.070	0.013	0.000	-0.053	0.009	0.000	-0.035	0.007	0.000	-0.051	0.009	0.000	-0.053	0.010	0.000
STUD $\rightarrow$ JSENV	0.153	0.037	0.000	0.168	0.028	0.000	0.239	0.029	0.000	0.175	0.020	0.000	0.171	0.015	0.000	0.222	0.019	0.000
TEAM $\rightarrow$ JSENV	0.082	0.022	0.000	0.106	0.019	0.000	0.056	0.013	0.000	0.122	0.019	0.000	0.069	0.013	0.000	0.091	0.017	0.000
STAKE $\rightarrow$ JSENV	0.377	0.035	0.000	0.442	0.024	0.000	0.368	0.026	0.000	0.265	0.019	0.000	0.318	0.017	0.000	0.222	0.020	0.000
LOW_SES $\rightarrow$ JSENV	-0.105	0.014	0.000	-0.083	0.011	0.000	-0.058	0.007	0.000	-0.070	0.008	0.000	-0.050	0.006	0.000	-0.077	0.009	0.000
HIGH_SES $\rightarrow$ JSENV	0.028	0.009	0.002	0.030	0.010	0.002	0.030	0.010	0.002	0.020	0.006	0.002	0.021	0.007	0.002	0.022	0.007	0.002
DISC $\rightarrow$ WELS	0.246	0.021	0.000	0.221	0.024	0.000	0.165	0.016	0.000	0.149	0.017	0.000	0.228	0.017	0.000	0.262	0.019	0.000
STUD $\rightarrow$ WELS	-0.014	0.009	0.103	-0.016	0.011	0.142	-0.023	0.014	0.112	-0.022	0.015	0.142	-0.023	0.014	0.106	-0.033	0.021	0.106
TEAM $\rightarrow$ WELS	-0.033	0.009	0.000	-0.044	0.012	0.000	-0.023	0.006	0.000	-0.068	0.019	0.000	-0.040	0.011	0.000	-0.059	0.016	0.000
STAKE $\rightarrow$ WELS	-0.187	0.019	0.000	-0.224	0.024	0.000	-0.186	0.017	0.000	-0.179	0.017	0.000	-0.228	0.018	0.000	-0.176	0.018	0.000
LOW_SES $\rightarrow$ WELS	0.010	0.011	0.371	0.008	0.009	0.371	0.005	0.006	0.371	0.009	0.010	0.371	0.007	0.007	0.371	0.011	0.013	0.371
HIGH_SES $\rightarrow$ WELS	-0.008	0.009	0.364	-0.009	0.009	0.364	-0.008	0.009	0.364	-0.007	0.008	0.364	-0.008	0.009	0.364	-0.010	0.011	0.364
EXP $\rightarrow$ DISC	-0.135	0.013	0.000	-0.129	0.016	0.000	-0.251	0.020	0.000	-0.195	0.021	0.000	-0.140	0.013	0.000	-0.131	0.013	0.000
LOW_SES $\rightarrow$ DISC	0.014	0.011	0.226	0.012	0.010	0.214	0.012	0.009	0.219	0.021	0.017	0.218	0.010	0.008	0.221	0.015	0.012	0.212
HIGH_SES $\rightarrow$ DISC	-0.035	0.009	0.000	-0.043	0.010	0.000	-0.057	0.013	0.000	-0.055	0.013	0.000	-0.041	0.010	0.000	-0.041	0.010	0.000
EXP $\rightarrow$ STUD	0.033	0.016	0.034	0.025	0.011	0.023	0.026	0.012	0.024	0.019	0.008	0.016	0.020	0.008	0.017	0.015	0.006	0.017
LOW_SES $\rightarrow$ STUD	-0.021	0.016	0.190	-0.015	0.013	0.230	-0.008	0.006	0.213	-0.012	0.010	0.218	-0.009	0.007	0.219	-0.011	0.009	0.219
HIGH_SES $\rightarrow$ STUD	0.011	0.013	0.370	0.011	0.011	0.332	0.008	0.008	0.352	0.007	0.007	0.354	0.008	0.008	0.341	0.006	0.006	0.341
EXP $\rightarrow$ TEAM	0.096	0.020	0.000	0.062	0.014	0.000	0.172	0.021	0.000	0.042	0.010	0.000	0.076	0.016	0.000	0.056	0.012	0.000
LOW_SES $\rightarrow$ TEAM	0.009	0.014	0.551	0.005	0.009	0.559	0.007	0.012	0.570	0.004	0.007	0.566	0.005	0.008	0.553	0.006	0.010	0.553
HIGH_SES $\rightarrow$ TEAM	-0.001	0.009	0.891	-0.001	0.008	0.892	-0.002	0.014	0.891	-0.001	0.004	0.892	-0.001	0.008	0.892	-0.001	0.006	0.892

EXP ⇨ STAKE	0.040	0.011	0.000	0.029	0.008	0.000	0.051	0.014	0.000	0.037	0.010	0.000	0.032	0.008	0.000	0.044	0.011	0.000
LOW_SES ⇨ STAKE	0.000	0.013	0.979	0.000	0.009	0.979	0.000	0.007	0.979	0.000	0.012	0.979	0.000	0.007	0.979	0.000	0.016	0.979
HIGH_SES ⇨ STAKE	0.015	0.011	0.157	0.013	0.009	0.150	0.016	0.011	0.160	0.015	0.010	0.150	0.013	0.009	0.150	0.020	0.014	0.166
<i>Standardized indirect effects</i>																		
LOW_SES ⇨ WELS ⇨ JSENV	-0.004	0.000	0.370	0.000	0.000	0.370	0.000	0.000	0.370	0.000	0.000	0.370	0.000	0.000	0.370	0.000	0.000	0.370
LOW_SES ⇨ DISC ⇨ JSENV	-0.001	0.000	0.230	0.000	0.000	0.230	0.000	0.000	0.230	0.000	0.000	0.230	0.000	0.000	0.230	0.000	0.000	0.230
LOW_SES ⇨ STUD ⇨ JSENV	-0.003	0.000	0.210	0.000	0.000	0.220	0.000	0.000	0.210	0.000	0.000	0.210	0.000	0.000	0.210	0.000	0.000	0.210
LOW_SES ⇨ STAKE ⇨ JSENV	0.000	0.010	0.980	0.000	0.000	0.980	0.000	0.000	0.980	0.000	0.000	0.980	0.000	0.000	0.980	0.000	0.000	0.980
LOW_SES ⇨ TEAM ⇨ JSENV	0.001	0.000	0.560	0.000	0.000	0.560	0.000	0.000	0.560	0.000	0.000	0.560	0.000	0.000	0.560	0.000	0.000	0.560
LOW_SES ⇨ DISC ⇨ WELS ⇨ JSENV	-0.001	0.000	0.220	0.000	0.000	0.220	0.000	0.000	0.220	0.000	0.000	0.220	0.000	0.000	0.220	0.000	0.000	0.220
LOW_SES ⇨ STUD ⇨ WELS ⇨ JSENV	0.000	0.000	0.320	0.000	0.000	0.320	0.000	0.000	0.320	0.000	0.000	0.320	0.000	0.000	0.320	0.000	0.000	0.320
LOW_SES ⇨ STAKE ⇨ WELS ⇨ JSENV	0.000	0.000	0.980	0.000	0.000	0.980	0.000	0.000	0.980	0.000	0.000	0.980	0.000	0.000	0.980	0.000	0.000	0.980
LOW_SES ⇨ TEAM ⇨ WELS ⇨ JSENV	0.000	0.000	0.560	0.000	0.000	0.560	0.000	0.000	0.560	0.000	0.000	0.560	0.000	0.000	0.560	0.000	0.000	0.560
HIGH_SES ⇨ WELS ⇨ JSENV	0.003	0.000	0.360	0.000	0.000	0.370	0.000	0.000	0.370	0.000	0.000	0.360	0.000	0.000	0.360	0.000	0.000	0.360
HIGH_SES ⇨ DISC ⇨ JSENV	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HIGH_SES ⇨ STUD ⇨ JSENV	0.002	0.000	0.350	0.000	0.000	0.340	0.000	0.000	0.350	0.000	0.000	0.350	0.000	0.000	0.350	0.000	0.000	0.350
HIGH_SES ⇨ STAKE ⇨ JSENV	0.006	0.000	0.160	0.010	0.000	0.150	0.010	0.000	0.160	0.000	0.000	0.150	0.000	0.000	0.150	0.000	0.000	0.150
HIGH_SES ⇨ TEAM ⇨ JSENV	0.000	0.000	0.890	0.000	0.000	0.890	0.000	0.000	0.890	0.000	0.000	0.890	0.000	0.000	0.890	0.000	0.000	0.890
HIGH_SES ⇨ DISC ⇨ WELS ⇨ JSENV	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HIGH_SES ⇨ STUD ⇨ WELS ⇨ JSENV	0.000	0.000	0.420	0.000	0.000	0.410	0.000	0.000	0.420	0.000	0.000	0.410	0.000	0.000	0.410	0.000	0.000	0.410

HIGH_SES ⇨ STAKE⇨ WELS ⇨ JSENV	0.001	0.000	0.160	0.000	0.000	0.150	0.000	0.000	0.160	0.000	0.000	0.150	0.000	0.000	0.150	0.000	0.000	0.150
HIGH_SE⇨ TEAM ⇨ WELS ⇨ JSENV	0.000	0.000	0.890	0.000	0.000	0.890	0.000	0.000	0.890	0.000	0.000	0.890	0.000	0.000	0.890	0.000	0.000	0.890
STAKE ⇨ WELS ⇨ JSENV	0.068	0.010	0.000	0.080	0.010	0.000	0.070	0.010	0.000	0.050	0.010	0.000	0.060	0.010	0.000	0.040	0.000	0.000
TEAM ⇨ WELS ⇨ JSENV	0.012	0.000	0.000	0.020	0.010	0.000	0.010	0.000	0.000	0.020	0.010	0.000	0.010	0.000	0.000	0.010	0.000	0.000
DISC ⇨ WELS ⇨ JSENV	-0.089	0.010	0.000	-0.080	0.010	0.000	-0.060	0.010	0.000	-0.040	0.010	0.000	-0.060	0.010	0.000	-0.060	0.010	0.000
STUD ⇨ WELS ⇨ JSENV	0.005	0.000	0.100	0.010	0.000	0.140	0.010	0.010	0.110	0.010	0.000	0.140	0.010	0.000	0.100	0.010	0.010	0.100
<i>Standardized total indirect effects</i>																		
LOW_SES ⇨ JSENV	-0.008	0.010	0.360	-0.010	0.010	0.360	-0.010	0.010	0.360	-0.010	0.010	0.360	0.000	0.000	0.360	-0.010	0.010	0.360
HIGH_SES ⇨ JSENV	0.017	0.010	0.020	0.020	0.010	0.020	0.020	0.010	0.020	0.010	0.010	0.020	0.010	0.010	0.020	0.010	0.010	0.020
STAKE ⇨ JSENV	0.068	0.010	0.000	0.080	0.010	0.000	0.070	0.010	0.000	0.050	0.010	0.000	0.060	0.010	0.000	0.040	0.000	0.000
TEAM ⇨ JSENV	0.012	0.000	0.000	0.020	0.010	0.000	0.010	0.000	0.000	0.020	0.010	0.000	0.010	0.000	0.000	0.010	0.000	0.000
DISC ⇨ JSENV	-0.089	0.010	0.000	-0.080	0.010	0.000	-0.060	0.010	0.000	-0.040	0.010	0.000	-0.060	0.010	0.000	-0.060	0.010	0.000
STUD ⇨ JSENV	0.005	0.000	0.100	0.010	0.000	0.140	0.010	0.010	0.110	0.010	0.000	0.140	0.010	0.000	0.100	0.010	0.010	0.100
<i>Standardized total effects</i>																		
LOW_SES ⇨ JSENV	-0.113	0.020	0.000	-0.090	0.010	0.000	-0.060	0.010	0.000	-0.080	0.010	0.000	-0.050	0.010	0.000	-0.080	0.010	0.000
HIGH_SES ⇨ JSENV	0.045	0.010	0.000	0.050	0.010	0.000	0.050	0.010	0.000	0.030	0.010	0.000	0.030	0.010	0.000	0.040	0.010	0.000
STAKE ⇨ JSENV	0.445	0.040	0.000	0.520	0.030	0.000	0.440	0.030	0.000	0.310	0.020	0.000	0.380	0.020	0.000	0.260	0.020	0.000
TEAM ⇨ JSENV	0.094	0.020	0.000	0.120	0.020	0.000	0.070	0.020	0.000	0.140	0.020	0.000	0.080	0.010	0.000	0.110	0.020	0.000
DISC ⇨ JSENV	-0.169	0.020	0.000	-0.150	0.020	0.000	-0.110	0.010	0.000	-0.080	0.010	0.000	-0.110	0.010	0.000	-0.110	0.010	0.000
STUD ⇨ JSENV	0.158	0.040	0.000	0.170	0.030	0.000	0.250	0.030	0.000	0.180	0.020	0.000	0.180	0.020	0.000	0.230	0.020	0.000

Note: JSENV = job satisfaction with work environment, WELS = workplace well-being and stress, DISC = teachers perceived disciplinary climate, STUD = teacher-student relations, STAKE = participation among stakeholders, TEAM = team innovativeness, EXP = teachers total work experience

BGR = Bulgaria, HRV = Croatia, EST = Estonia, HUN = Hungary, LTU = Lithuania, ROU = Romania