

APPENDIX

Learning environment scales developed for this study

Teacher guidance

The teachers help me planning and organizing my schoolwork

The teachers help us to choose an appropriate method

The teachers often talks with the students about their work and progress

The teachers are good at motivating the students

Adaptation of schoolwork

The teachers are good at making use of students' interests and skills with regard to the schoolwork

I feel that I can make use of my strengths when doing my schoolwork

I feel that the teachers take my opinions and wishes into consideration

I feel that the school day varies in a good way

Appendix 1: Mean and standard deviation for scores of learning environment factors and EBP for the total sample of 8th grade, 9th grade and 10th grade students from 2000, 2001 and 2002 (N=770).

	8 th grade		9 th grade		10 th grade	
	M	SD	M	SD	M	SD
Meaningfulness of schoolwork	3.25	1.00	3.09	1.01	2.86	1.04
Teachers` emotional support	1.93	.64	1.91	.60	1.72	.60
Teachers` academic support	2.09	.66	2.00	.59	1.80	.64
Teacher guidance	1.81	.66	1.60	.66	1.40	.66
Adaptation of schoolwork	1.69	.66	1.56	.61	1.33	.62
Teachers` monitoring	1.89	.59	1.69	.56	1.46	.56
Student influence	1.82	.67	1.72	.67	1.69	.67
Competition	1.72	.82	1.62	.88	1.59	.88
Relations between classmates	2.25	.54	2.14	.52	2.21	.55
Off-task-orientation	.75	.45	.79	.50	.92	.50
Externalising problems	.34	.43	.40	.47	.38	.47
Emotional problems	.48	.54	.62	.64	.67	.61

Scoring range for all scales were 0-3. For competition high scores indicate much competition, for the other learning environment scales high scores indicate positive assessments. For EBP high scores indicate much problems.

Appendix 2 Minimum, maximum, mean, standard deviation for scores of pre-post differences for learning environment factors, as well as percentages of negative changes (change scores below 0)

	Min.	Max.	M	SD	Percentages of scores below 0
Meaningfulness of schoolwork	-2.25	2.52	0.01	0.97	50%
Teachers` emotional support	-1.80	1.28	0.09	0.58	38%
Teachers` academic support	-2.00	1.52	-0.00	0.66	49%
Teacher guidance	-2.25	2.29	0.04	0.81	50%
Adaptation of schoolwork	-1.46	1.39	0.05	0.64	42%
Teachers monitoring	-2.00	2.07	0.10	0.62	43%
Student influence	-1.42	2.56	0.48	0.75	29%
Competition	-2.75	2.78	-0.11	0.92	48%
Relations between classmates	-1.53	1.27	0.06	0.50	46%

Table I. Mean scores and standard deviations for scores of learning environment factors and emotional and behavioural problems at pre-test and post-test, and results of GLM Repeated Measures Procedure of differences between pre- and post-test, for learning environment factors and EBP separately (N=119).

	2000		2001		Pre-post differences	
	M	SD	M	SD	F	p
<i>Multivariate tests</i>						
<i>learning environment factors</i>					6.94	.000
<i>Multivariate tests</i>						
<i>dependent variables</i>					6.07	.001
<i>Univariate tests</i>						
<i>Learning environment variables</i>						
Meaningfulness of schoolwork	3.23	0.93	3.24	0.99	0.03	0.87
Teachers' emotional support	1.89	0.58	1.98	0.60	3.00	0.09
Teachers' academic support	1.93	0.64	1.93	0.73	0.01	0.94
Teacher guidance	1.62	0.66	1.62	0.80	0.00	0.95
Adaptation of schoolwork	1.57	0.65	1.62	0.64	0.81	0.37
Teachers' monitoring	1.63	0.55	1.74	0.70	3.25	0.07
Student influence	1.49	0.61	1.96	0.59	48.40	0.00
Competition for grades	1.66	0.84	1.56	0.85	1.56	0.21
Relationships between classmates	2.20	0.54	2.26	0.54	1.85	0.18
<i>Dependent variables</i>						
Off-task-orientation	0.79	0.48	0.70	0.43	4.623	0.03
Externalising problems	0.33	0.37	0.39	0.45	4.638	0.03
Emotional problems	0.61	0.63	0.52	0.52	3.587	0.06

Note that scores for post-test were corrected for general age trends and that Bonferroni correction was implemented to adjust for the number of comparisons made.

Table II. Partial correlations of change scores for off-task-orientation, externalising problems and emotional problems with change scores for learning environment factors. In the partial correlation, pretest scores for the independent and the dependent variable were entered as covariates.

	Off-task-orientation	Externalising problems	Emotional problems
Meaningfulness of schoolwork	-.34***	-.14	-.21**
Teachers' emotional support	-.31***	-.21**	-.19**
Teachers' academic support	-.22**	-.23**	-.21*
Teacher guidance	-.21***	-.12	-.11
Adaptation of schoolwork	-.29***	-.14	-.15*
Student influence	-.21**	-.15	-.23**
Teachers' monitoring	-.24***	-.23**	-.19**
Competition grades	.09	.12	.13
Relations between classmates	-.18**	.06	.01

*** p<0.01, **p<0.05, * p<0.10

Table III. Partial correlations of change scores for off-task-orientation, externalising problems and emotional problems and scores for coping styles at pretest. In the partial correlation, pretest scores for the dependent variable were entered as covariates.

	Off-task-orientation	Externalising problems	Emotional problems
Seeking social support	-.09	.14	.16*
Planning	-.04	.09	.07
Behavioural disengagement	.02	-.05	.02
Self-blame	-.05	.15	.05
Aggressive coping	.10	.09	.12

* p<0.10

