Table 4. First- and higher-order factor correlations with between-network educational constructs (subsample $N = 2,857$)

	Educational aspirations	Class participation	Enjoy school	Mean r
First-order factors				
Adaptive cognitions				
Self-efficacy	.70	.49	.61	.60
Mastery orientation	.60	.44	.60	.55
Valuing of school	.73	.49	.69	.64
Adaptive behaviours				
Planning	.52	.44	.55	.50
Study management	.48	.41	.50	.46
Persistence	.62	.47	.60	.56
Impeding dimensions				
Anxiety	.05	−.01	.02	.02
Failure avoidance	−.15	−.12	−.10	−.12
Uncertain control	−.24	−.15	−.15	−.18
Maladaptive dimensions				
Self-handicapping	−.35	−.26	−.27	−.29
Disengagement	−.71	−.44	−.66	−.60
Higher-order factors				
Adaptive cognitions	.78	.55	.74	.69
Adaptive behaviours	.64	.52	.64	.60
Impeding dimensions	−.20	−.15	−.13	−.16
Maladaptive dimensions	−.75	−.49	−.68	−.64

the number of outcome variables (11) to yield a revised significance criterion level of .005 (rounded).

These results show that there are gender differences on a number of facets of motivation. Generally, these findings are consistent with the hypothesis that girls reflect a more adaptive pattern of motivation and engagement. In terms of adaptive dimensions, girls are significantly higher than boys in their valuing of school, mastery orientation, planning, study management and persistence. In terms of impeding and maladaptive dimensions, girls are significantly higher than boys in anxiety while boys are significantly higher in self-handicapping and disengagement. Year level findings broadly confirm hypotheses that middle high school students seem to reflect a less adaptive pattern of motivation and engagement. Findings in relation to failure avoidance are qualified by an interaction effect. That is, gender differences on these dimensions change as a function of year grouping. Follow-up simple effects tests show that boys are significantly higher than girls on failure avoidance in junior high school, but in middle and senior high school there are no significant gender differences on failure avoidance.

Discussion

The present study adopted a construct validation approach to examining multi-dimensional motivation and engagement through an assessment of within- and between-network validity. In terms of within-network validity, (1) the data confirm the good fit of