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Table S1

L-SNA Comparison Model: Peer Selection and Influence Processes on the Basis of Mathematical Reasoning with an Additional Measure of Friend Influence (Average Alter Effect)

	Est.	SE
Structural and Behavioural Covariates		
Outdegree	-1.77**	0.04
Reciprocity	1.55**	0.06
Transitive triplets	0.34**	0.02
Linear tendency	0.04*	0.02
Quadratic shape	-0.07	0.01
Selection Effect		
Selection for Mathematical Reasoning Similarity	0.43	0.29
Influence Effects		
Influence on Mathematical Reasoning (Average Alter)	0.05*	0.02
Indistinguishable Influence on Mathematical Reasoning (Average Reciprocated Alter)	0.03	0.02
Distinguishable Influence on Mathematical Reasoning from Lower on Higher Achiever (Weighted Interaction)	-0.04	0.13
Distinguishable Influence on Mathematical Reasoning from Higher on Lower Achiever (Weighted Interaction)	-0.07	0.11

Note. L-SNA models included the entire peer network (N=1,024). Peer influence within L-SNA was measured with the average alter effect and the average reciprocated alter effect for indistinguishable dyad analyses and the average alter parameter weighted by stable and reciprocated higher and lower achieving peer relationships for distinguishable dyad analyses. In the model presented, all individual effect convergence estimates were less than 0.1 in absolute value and the overall convergence estimate was below 0.25, indicating that excellent convergence was achieved as outlined in Section 6.3.2 of the SIENA Manual. Statistical significance of the mean parameter estimates is obtained by an approximate t-ratio of the estimate divided by its standard error (SE). *p < .05, **p < .01

Table S2

L-SNA Base Model: Peer Selection and Influence Processes on the Basis of Mathematical Reasoning with the Program Default Structural Parameters and an Additional Measure of Friend Influence (Average Alter Effect).

	Est.	SE
Structural and Behavioural Covariates		
Outdegree	-1.46**	0.03
Reciprocity	1.74**	0.06
Linear tendency	0.03	0.02
Quadratic shape	-0.07**	0.01
Selection Effect		
Selection for Mathematical Reasoning Similarity	0.59	0.34
Influence Effects		
Indistinguishable Influence on Mathematical Reasoning (Average Alter)	0.05**	0.02
Indistinguishable Influence on Mathematical Reasoning (Average Reciprocated Alter)	0.03	0.02
Distinguishable Influence on Mathematical Reasoning from Lower on Higher Achiever (Weighted Interaction)	-0.03	0.17
Distinguishable Influence on Mathematical Reasoning from Higher on Lower Achiever (Weighted Interaction)	-0.06	0.15

Note. L-SNA models included the entire peer network (N=1,024). Peer influence within L-SNA was measured with the average alter effect and the average reciprocated alter effect for indistinguishable dyad analyses and the average alter parameter weighted by stable and reciprocated higher and lower achieving peer relationships for distinguishable dyad analyses. In the model presented, all individual effect convergence estimates were less than 0.1 in absolute value and the overall convergence estimate was below 0.25, indicating that excellent convergence was achieved as outlined in Section 6.3.2 of the SIENA Manual. Statistical significance of the mean parameter estimates is obtained by an approximate t-ratio of the estimate divided by its standard error (SE). *p < .05, **p < .01

Table S3

L-SNA Best Practices Model: Peer Selection and Influence Processes on the Basis of Mathematical Reasoning with Gender Covariates and Structural Features of the Network Suggested by sienaGOF.

	Est.	SE
Structural and Behavioural Covariates		
Outdegree	-1.95**	0.15
Reciprocity	2.00**	0.14
Transitive Triplets	0.22**	0.07
Transitive Reciprocated Triplets	-0.36**	0.11
Three Cycles	0.37**	0.08
Transitive Ties	0.74**	0.12
Outdegree Popularity	-0.64**	0.06
Linear tendency	0.04*	0.02
Quadratic shape	-0.07	0.01
Gender Covariate Effects		
Effect of Gender on Selection	1.51**	0.14
Effect of Gender on Behavior Change	-0.09*	0.04
Selection Effect		
Selection for Mathematical Reasoning Similarity	0.73*	0.35
Influence Effects		
Influence on Mathematical Reasoning (Average Alter)	0.04*	0.02
Influence on Mathematical Reasoning (Average Reciprocated Alter)	0.03	0.02
Influence on Mathematical Reasoning from Lower on Higher Achiever (Weighted Interaction)	-0.02	0.18
Influence on Mathematical Reasoning from Higher on Lower Achiever (Weighted Interaction)	-0.07	0.11

Note. L-SNA models included the entire peer network (N=1,024). Gender was coded as a binary such that 1 was the code for girls and 0 was the code for boys. Peer influence within L-SNA was measured with the average alter effect and the average reciprocated alter effect for indistinguishable dyad analyses and the average alter parameter weighted by stable and reciprocated higher and lower achieving peer relationships for distinguishable dyad analyses. In the model presented, all individual effect convergence estimates were less than 0.1 in absolute value and the overall convergence estimate was below 0.25, indicating that excellent convergence was achieved as outlined in Section 6.3.2 of the SIENA Manual. Statistical significance of the mean parameter estimates is obtained by an approximate t-ratio of the estimate divided by its standard error (SE). *$p < .05$, **$p < .01$