

Supplemental Material

Table S1*Multiple Linear Regression Models Predicting Students' Comprehension of Connectives (N = 2,455)*

Predictors		Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
		β	SE	β	SE	β	SE	β	SE	β	SE	β	SE	β	SE
Grade															
	Grade 3 ^a	.30*	.03	.31*	.03	.31*	.03	.31*	.03	.31*	.03	.32*	.03	.32*	.03
	Grade 4 ^a	.60*	.03	.61*	.03	.60*	.03	.60*	.03	.60*	.03	.62*	.03	.61*	.03
Language background															
	Bilingual ^b	-.21*	.02	-.14*	.02	-.12*	.02	-.11*	.02	-.11*	.02	-.13*	.02	-.11*	.02
	GSL ^b	-.30*	.02	-.22*	.02	-.18*	.02	-.17*	.02	-.17*	.02	-.21*	.02	-.17*	.02
	HISEI ^c			.19*	.03	.12*	.03	.12*	.03	.12*	.03	.16*	.03	.11*	.03
	Parental education ^d			.13*	.02	.09*	.02	.08*	.02	.08*	.02	.11*	.02	.08*	.02
source: parents	Number of books ^e					.18*	.02	.12*	.03	.12*	.03			.10*	.03
	Number of children's books ^e							.11*	.02	.11*	.02			.09*	.03
	Number of ebooks ^f									-.01	.02				
source: child	Number of books ^e											.07*	.02	.02	.02
	Number of children's books ^e											.07*	.02	.05*	.02
R^2		.355*		.426*		.447*		.453*		.453*		.439*		.456*	
ΔR^2 (F for ΔR^2)				.071 (50.38*)		.021 (13.24*)		.006 (3.34*)		.00 (0)		.013 (7.07*)		.01 (1.34)	

Note. GSL: German as a second language.

^a Reference category: Grade 2. ^b Reference category: German monolingual. ^cHighest International Socio-Economic Index of Occupational Status. ^dParental education level (PARED) as indicated by the highest number of education years of both parents, which is based on the highest ISCED-level of both parents. ^eAssessed with a Likert scale, ranging from 1 (0–10 books) to 5 (more than 200 books). ^fAssessed with a Likert scale, ranging from 1 (0–10 ebooks) to 5 (more than 100 ebooks). ^gCompared to Model 2. ^hCompared to Model 4.

* $p < .05$.

Table S2

Multiple Linear Regression Models Predicting Students' Comprehension of Cross-Subject Academic Vocabulary (N = 2,402)

Predictors		Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
		β	SE	β	SE	β	SE	β	SE	β	SE	β	SE	β	SE
Grade															
	Grade 3 ^a	.24*	.03	.23*	.03	.23*	.03	.23*	.03	.23*	.03	.23*	.03	.23*	.03
	Grade 4 ^a	.48*	.03	.47*	.03	.47*	.03	.47*	.03	.48*	.03	.48*	.03	.47*	.03
Language background															
	Bilingual ^b	-.29*	.02	-.23*	.02	-.21*	.02	-.20*	.02	-.20*	.02	-.22*	.02	-.20*	.02
	GSL ^b	-.39*	.02	-.33*	.02	-.29*	.02	-.28*	.02	-.28*	.02	-.31*	.02	-.28*	.02
	HISEI ^c			.19*	.02	.14*	.02	.13*	.02	.13*	.02	.18*	.02	.13*	.02
	Parental education ^d			.08*	.02	.05*	.02	.04	.02	.04	.02	.07*	.02	.04	.02
Source: parents	Number of books ^e					.16*	.02	.09*	.03	.09*	.02			.08*	.03
	Number of children's books ^e							.12*	.03	.12*	.03			.11*	.03
	Number of ebooks ^f									-.01	.02				
Source: child	Number of books ^e											.05*	.02	.01	.02
	Number of children's books ^e											.06*	.02	.04	.02
R^2		.326*		.384*		.400*		.406*		.406*		.392*		.408*	
ΔR^2 (F for ΔR^2)				.058 (37.52*)		.016 (9.10*)		.006 (3.01*)		.00 (0)		.01 (3.93*)		0 (0.81)	

Note. GSL: German as a second language.

^a Reference category: Grade 2. ^b Reference category: German monolingual. ^cHighest International Socio-Economic Index of Occupational Status. ^dParental education level (PARED) as indicated by the highest number of education years of both parents, which is based on the highest ISCED-level of both parents. ^eAssessed with a Likert scale, ranging from 1 (0–10 books) to 5 (more than 200 books). ^fAssessed with a Likert scale, ranging from 1 (0–10 ebooks) to 5 (more than 100 ebooks). ^gCompared to Model 2. ^hCompared to Model 4.

* $p < .05$.

Table S3

Estimates of Specific Indirect Effects of HISEI and Parental Education via the Number of Books on Students' Comprehension of Connectives (N = 2,455)

Specific indirect effects		Model 4a		Model 6a	
		β	SE	β	SE
Source: parents	HISEI → Number of books → CC	.04*	.01		
	HISEI → Number of children's books → CC	.03*	.01		
	Parental education → Number of books → CC	.03*	.01		
	Parental education → Number of children's books → CC	.03*	.01		
Source: child	HISEI → Number of books → CC			.02*	.01
	HISEI → Number of children's books → CC			.01*	.00
	Parental education → Number of books → CC			.01*	.00
	Parental education → Number of children's books → CC			.01*	.00

Note. CC: Comprehension of connectives. HISEI: Highest International Socio-Economic Index of Occupational Status. Parental education level (PARED) as indicated by the highest number of education years of both parents, which is based on the highest ISCED-level of both parents. Number of books and children's books were assessed with Likert scales, ranging from 1 (0–10 books) to 5 (more than 200 books).

In Model 4a, HISEI and parental education predicted the number of books ($\beta_{\text{HISEI}} = .37^*$, $SE = .03$; $\beta_{\text{parental education}} = .24^*$, $SE = .03$) and the number of children's books ($\beta_{\text{HISEI}} = .31^*$, $SE = .03$; $\beta_{\text{parental education}} = .27^*$, $SE = .03$) as indicated by the parents. Likewise, in Model 6a, HISEI and parental education predicted the number of books ($\beta_{\text{HISEI}} = .25^*$, $SE = .03$; $\beta_{\text{parental education}} = .14^*$, $SE = .03$) and the number of children's books ($\beta_{\text{HISEI}} = .16^*$, $SE = .03$; $\beta_{\text{parental education}} = .13^*$, $SE = .03$) as indicated by the children.

* $p < .05$.

Table S4

Estimates of Specific Indirect Effects of HISEI and Parental Education via the Number of Books on Students' Comprehension of Cross-Subject Academic Vocabulary (N = 2,402)

Specific indirect effects		Model 4a		Model 6a	
		β	SE	β	SE
Source: parents	HISEI → Number of books → CSAV	.03*	.01		
	HISEI → Number of children's books → CSAV	.04*	.01		
	Parental education → Number of books → CSAV	.02*	.01		
	Parental education → Number of children's books → CSAV	.03*	.01		
Source: child	HISEI → Number of books → CSAV			.02*	.01
	HISEI → Number of children's books → CSAV			.01*	.00
	Parental education → Number of books → CSAV			.01*	.00
	Parental education → Number of children's books → CSAV			.01*	.00

Note. CSAV: Cross-subject academic vocabulary. HISEI: Highest International Socio-Economic Index of Occupational Status. Parental education level (PARED) as indicated by the highest number of education years of both parents, which is based on the highest ISCED-level of both parents. Number of books and children's books were assessed with Likert scales, ranging from 1 (0–10 books) to 5 (more than 200 books).

In Model 4a, HISEI and parental education predicted the number of books ($\beta_{\text{HISEI}} = .37^*$, $SE = .03$; $\beta_{\text{parental education}} = .24^*$, $SE = .03$) and the number of children's books ($\beta_{\text{HISEI}} = .31^*$, $SE = .03$; $\beta_{\text{parental education}} = .27^*$, $SE = .03$) as indicated by the parents. Likewise, in Model 6a, HISEI and parental education predicted the number of books ($\beta_{\text{HISEI}} = .24^*$, $SE = .03$; $\beta_{\text{parental education}} = .15^*$, $SE = .03$) and the number of children's books ($\beta_{\text{HISEI}} = .15^*$, $SE = .03$; $\beta_{\text{parental education}} = .13^*$, $SE = .03$) as indicated by the children.

* $p < .05$.

Table S5

Multiple Linear Regression Models Predicting Students' Academic Language Comprehension (N = 2,353): Effects of Different Books-at-Home Measures

Predictors		Model 2		Model 2a		Model 2b		Model 2c		Model 2d		Model 2e		Model 2f	
		β	SE	β	SE	β	SE	β	SE	β	SE	β	SE	β	SE
Grade															
	Grade 3 ^a	.12*	.04	.11*	.04	.11*	.04	.11*	.04	.11*	.04	.12*	.04	.11*	.04
	Grade 4 ^a	.30*	.04	.29*	.04	.29*	.04	.29*	.04	.30*	.04	.30*	.04	.30*	.04
Language background															
	Bilingual ^b	-.25*	.02	-.23*	.02	-.23*	.02	-.21*	.02	-.29*	.02	-.30*	.02	-.29*	.02
	GSL ^b	-.26*	.02	-.23*	.02	-.24*	.02	-.22*	.02	-.30*	.02	-.32*	.02	-.30*	.02
	HISEI ^c	.28*	.03												
	Parental education ^d	.10*	.02												
Source: parents	Number of books ^e			.31*	.02			.21*	.03						
	Number of children's books ^e					.30*	.02	.16*	.03						
	Number of ebooks ^f														
Source: child	Number of books ^e									.20*	.02			.15*	.03
	Number of children's books ^e											.17*	.02	.08*	.03
R^2		.31*		.29*		.28*		.30*		.24*		.23*		.25*	

Note. GSL: German as a second language.

^a Reference category: Grade 2. ^b Reference category: German monolingual. ^c Highest International Socio-Economic Index of Occupational Status. ^d Parental education level (PARED) as indicated by the highest number of education years of both parents, which is based on the highest ISCED-level of both parents. ^e Assessed with a Likert scale, ranging from 1 (0–10 books) to 5 (more than 200 books). ^f Assessed with a Likert scale, ranging from 1 (0–10 ebooks) to 5 (more than 100 ebooks). * $p < .05$.

Figure S1

Distribution of Parents' and Children's Information for the Different Books-at-Home Measures

