



Differential Summer Learning Environments for Immigrant and Nonimmigrant Students

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Theoretical Background

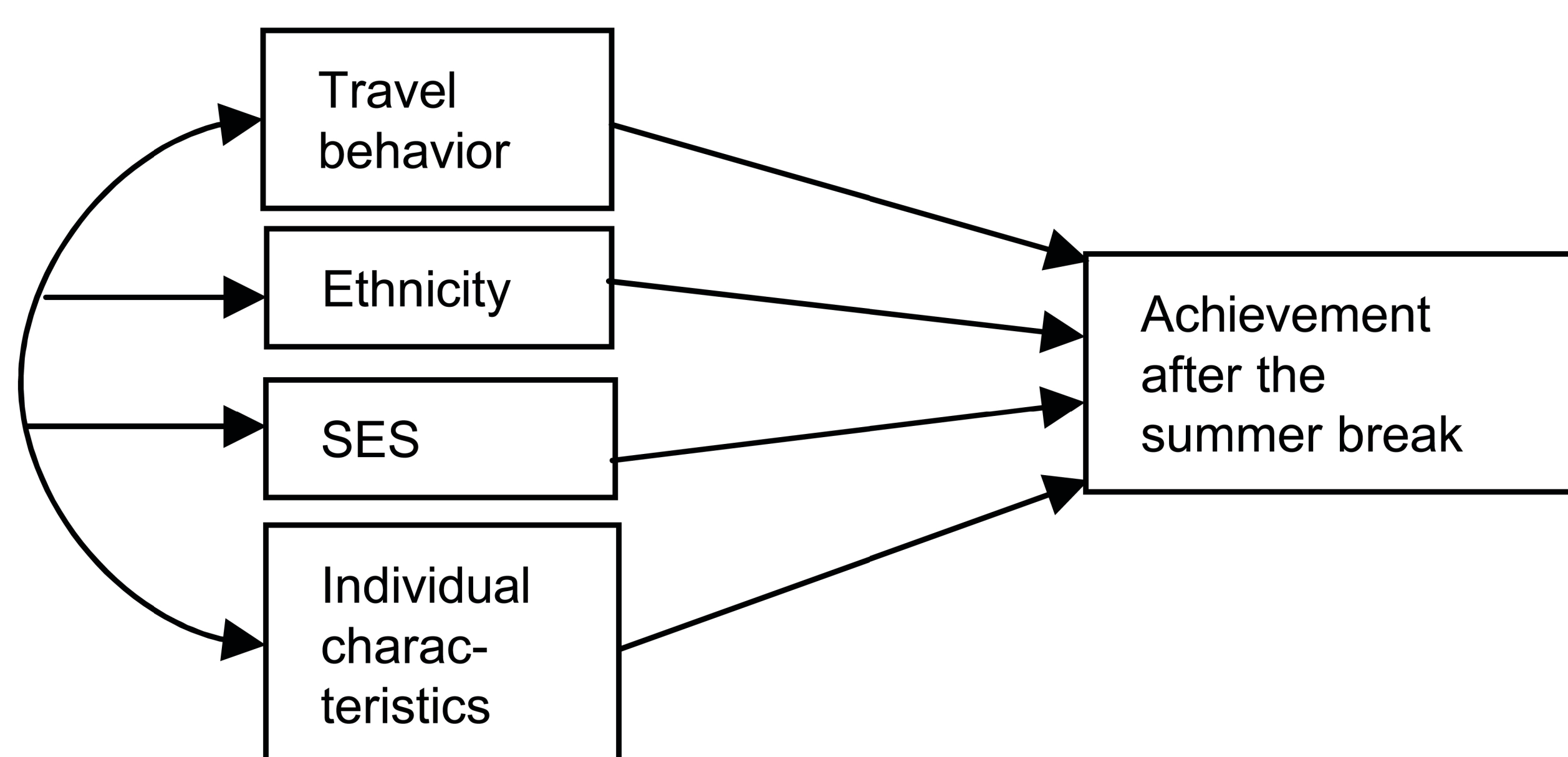
Since the work of Heyns (1978), a number of studies have attempted to assess the contribution of schooling to children's learning outcomes by comparing their learning rates during the school year and during the summer vacation. Summer breaks are generally considered to be one of the main sources of the social disparities in educational outcomes that emerge during the elementary and secondary years, especially with respect to reading abilities. This is because families are differently able to foster learning. Clearly, reading and language abilities are less dependent on formal education than are subjects such as mathematics. The family environment is therefore critical for the acquisition and maintenance of language-related abilities during the summer break.

Most studies on "summer setback" have found socioeconomic groups to show differential development in reading comprehension during the summer months. There is less consensus on whether other groups (e.g., racial/ethnic groups) also show differential development over the summer vacation (Cooper et al., 1996).

To our knowledge, only two studies have investigated summer setback in countries other than the United States and Canada, namely in Sweden (Lindahl, 2001) and the Netherlands (Verachtert et al., in press). Neither study found differential summer learning across socioeconomic or ethnic groups. However, both studies used math as the dependent variable.

In the present investigation, we examine summer setback in reading comprehension in Germany. This research provides an interesting variation on previous studies: Germany differs from the United States and the other two European countries in terms of the length of the summer break (6.5 weeks), variance in socioeconomic status, and the composition of ethnic minorities. Differential effects are expected for immigrant and nonimmigrant students, because immigrant students in Germany tend to spend more of the summer abroad than their peers in the United States, leading to decreased exposure to the school language.

Research Questions



Method

Sample:

The analyses were based on a sample of N = 1592 students from Berlin elementary schools. Reading comprehension was assessed in a pre-post design at the end of 4th grade and the beginning of 5th grade.

Measures:

Reading comprehension. Two parallel test forms, both with satisfactory internal consistency ($\alpha = .85$); different metrics.

Immigration background. Parents' place of birth (father and/or mother born in Germany or elsewhere); home language.

Socioeconomic status. Families' highest International Socio-Economic Index of Occupational Status (HISEI).

Travel behavior. Dummy variables: a) families left Germany for more than 4 weeks, b) families remained in Germany. Reference group: families left Germany for 1-4 weeks.

Analysis Strategy:

Multiple data imputation was used to account for missing data. Associations were examined by means of regression analyses controlling for initial differences in reading comprehension.

Results

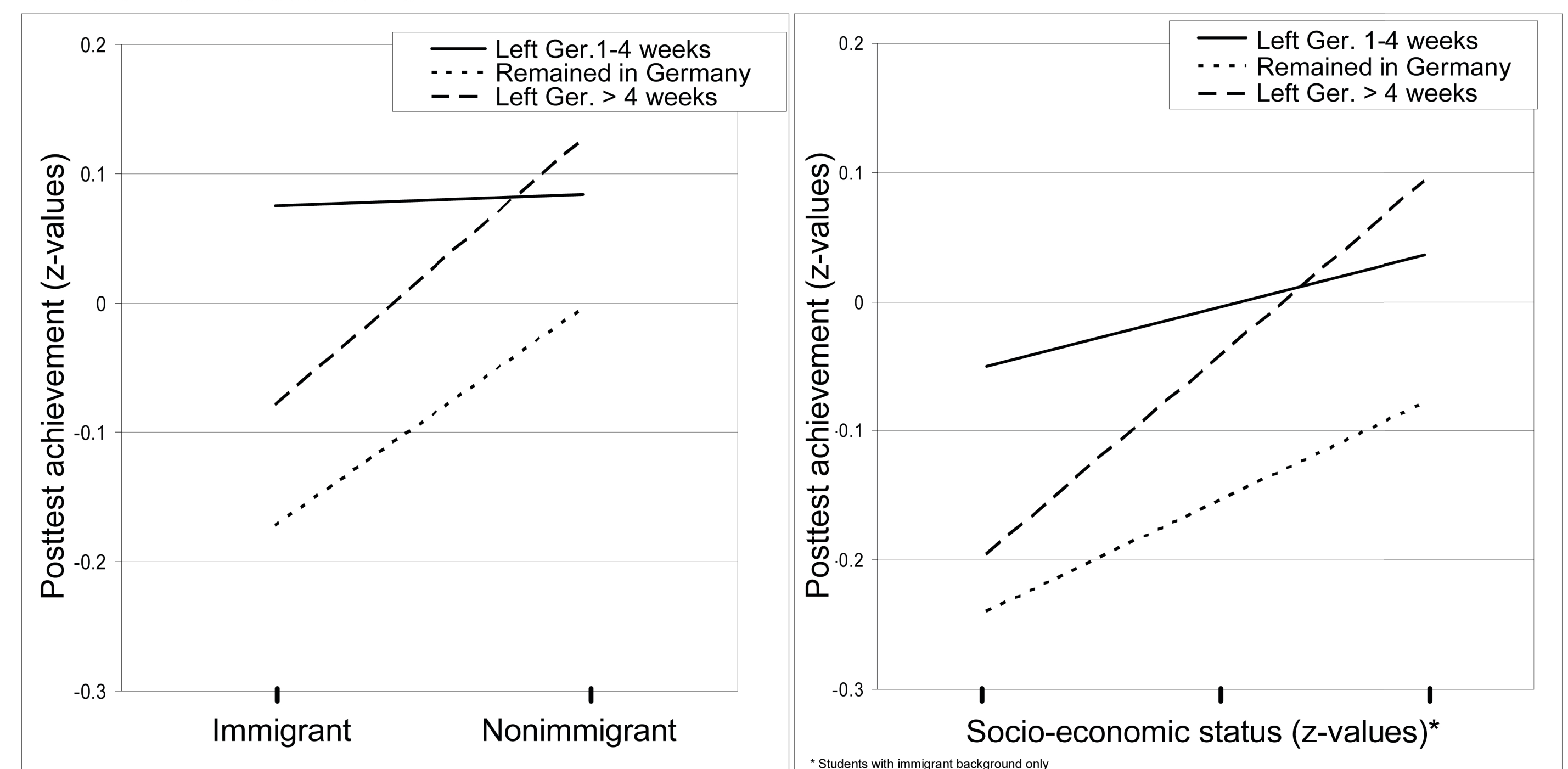
1) Differences in posttest achievement

Dependent variable: reading comprehension after the summer break.

	Model 1	Model 2	Model 3	Model 4
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
T1 achievement	.69 (.02) ***	.69 (.02) ***	.69 (.02) ***	.66 (.02) ***
Immigrant background	-.16 (.04) **	-.14 (.06) *		-.12 (.05) *
Home language		-.05 (.07)		
Turkish			-.17 (.06) **	
Polish/Russian			-.08 (.10)	
Other countries			-.14 (.05) **	
SES (HISEI)				.08 (.02) ***
R ² (adjusted)	52.4 %	52.4 %	52.3 %	52.8 %

Immigrant students showed significantly lower reading comprehension after the summer break than did nonimmigrant students. The language spoken at home did not account for additional variance (Model 2). Model 3 revealed differential effects for distinct ethnic groups. The difference between immigrant and nonimmigrant students persisted even when SES was controlled (Model 4).

2) Posttest achievement by immigrant status, SES, and travel behavior



Immigrant students who left Germany for more than 4 weeks or who remained in Germany showed lower post-test performance than those who left Germany for 1-4 weeks. This interaction was partly confounded with the interaction between socioeconomic status and travel behavior (see Table below).

	Model 1	Model 2	Model 3	Model 4
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
T1 achievement	.65 (.02) ***	.65 (.02) ***	.65 (.02) ***	.65 (.02) ***
HISEI	.07 (.02) **	.07 (.02) **	.04 (.03)	.05 (.03) *
Immigrant background	-.11 (.06)	-.05 (.06)	-.11 (.05)	-.06 (.06)
Remained in Germany	-.15 (.05) **	-.09 (.07)	-.15 (.06) *	-.09 (.07)
Left Germany > 4 weeks	-.05 (.07)	.04 (.08)	-.04 (.07)	.03 (.08)
Immigrant b. * remained in Ger.		-.17 (.09) *		-.17 (.09) *
Immigrant b. * left Ger. > 4 weeks		-.21 (.09) *		-.17 (.09) *
HISEI * remained in Ger.			.04 (.05)	.02 (.05)
HISEI * left Ger. > 4 weeks			.10 (.05) *	.08 (.05)
R ² (adjusted)	53.0	53.3	53.2	53.4

Conclusions

Our findings show that the summer setback in reading comprehension was especially pronounced for students with immigrant status and a low socioeconomic background.

Immigrant students performed significantly lower than their nonimmigrant peers, even when differences in baseline achievement and social background were controlled. This effect depended on factors relating to the family environment during the summer break (i.e., country of origin, travel behavior).

In line with research from the United States, summer setback effects were thus found to be attributable partly to the family background. The home environment does seem to matter in the absence of schooling, at least for the development of reading comprehension.

Key Reference

Becker, M., Stanat, P., Baumert, J., & Lehmann, R. (2007). *Effekte der Rückkehr in differenzielle Lebensverhältnisse während der Sommerferien auf die Leseleistungen von Kindern mit und ohne Migrationshintergrund*. Manuscript accepted, pending review.