

Fostering language development by content based learning in German secondary schools

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Evaluation der Sprachförderung im Fachunterricht der Sekundarstufe I im BiSS-Programm
cooperation between



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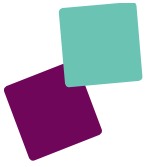
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Structure



- Description of the Project
- Research Questions
- Testing Instrument and Evaluation Method
- Results
- Conclusion



Description of the Project

Description of the Project



- **BiSS (Education through Language and Writing)**
 - 600 participating institutions (kindergarten and schools); 104 networks
 - Promotion of language skills, linguistic assessment, reading promotion
- **EvaFa (Fostering language development by content based learning in German secondary schools)**
 - 19 schools from 3 federal states of Germany
 - Longitudinal project, mixed-methods-design
 - offers the opportunity to investigate the language development process of the students



network coordinators

questionnaire n= 9
interview n= 7
interview n= 4

teachers

questionnaire
interview n= 24 schools
feedback
classroom observation n= 35 classes
interview n= 15 schools
feedback
classroom observation n= 21 classes
interview n= 11 schools
feedback
interview n= 16 schools
final feedback

Portfolio

students

2016 | 2017 | 2018
n= 34 schools | Portfolio | n= 20 schools

questionnaire n= 704 students 24 schools
questionnaire n= 416 students 17 schools
317 students participated in both measurement times.

parents

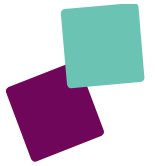
questionnaire n= 248
questionnaire n= 102

quantitative
qualitative



Research Questions

Research Questions



- How do self-percieved and measured language competencies influence the development of argumentative writing competencies?
- What influence do sociodemographic factors and multilingual education have on argumentative writing competencies?



Testing Instruments and Evaluation Method

Test Instruments



EvaFa

Evaluation der Sprachförderung
im Fachunterricht
der Sekundarstufe I

**Kompetenzbereich
Sprache Klasse 5-6**

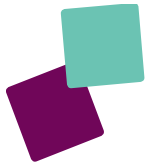
Landesinstitut für Sprachförderung
LEUPHANA
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- Standardized reading accuracy and speed test (LGVT)
- General language competencies (C-Test)
- Argumentative writing task

Additional Instruments

- Mathematical competency test (DEMAT)
- Sociodemographic background variables
- Self assessment of linguistic competencies
- Language background (L1, L2)

Evaluation Method

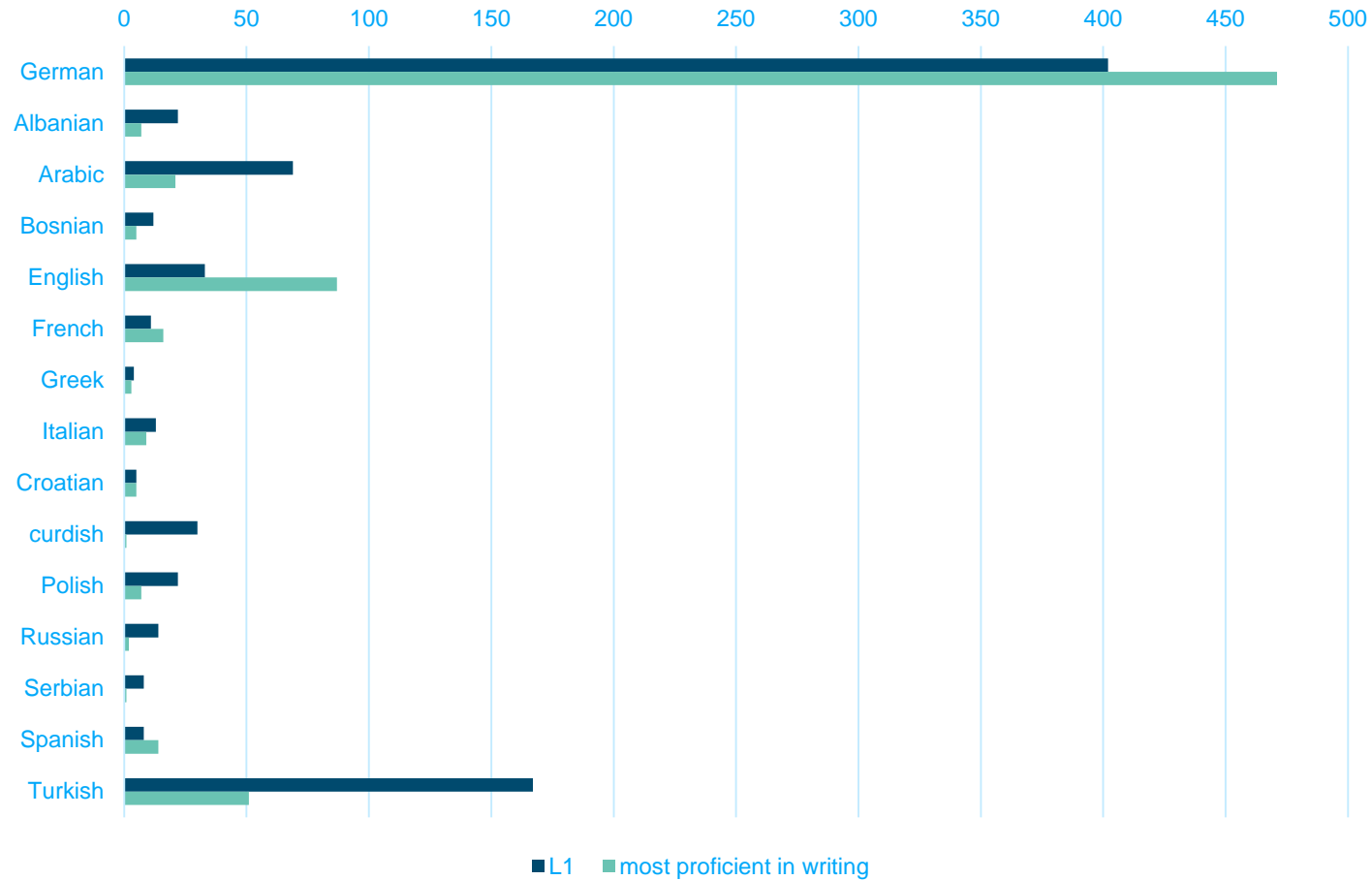


- indicator model for school writing to measure the text quality
- text length and three different categories with sub categories:
 - overall impression
 - content development: content, text structure, style, wording
 - linguistic quality: grammar, orthography, sentence structure
- 5 point scales
- one text per category as benchmark
- two trained raters



Results

Languages



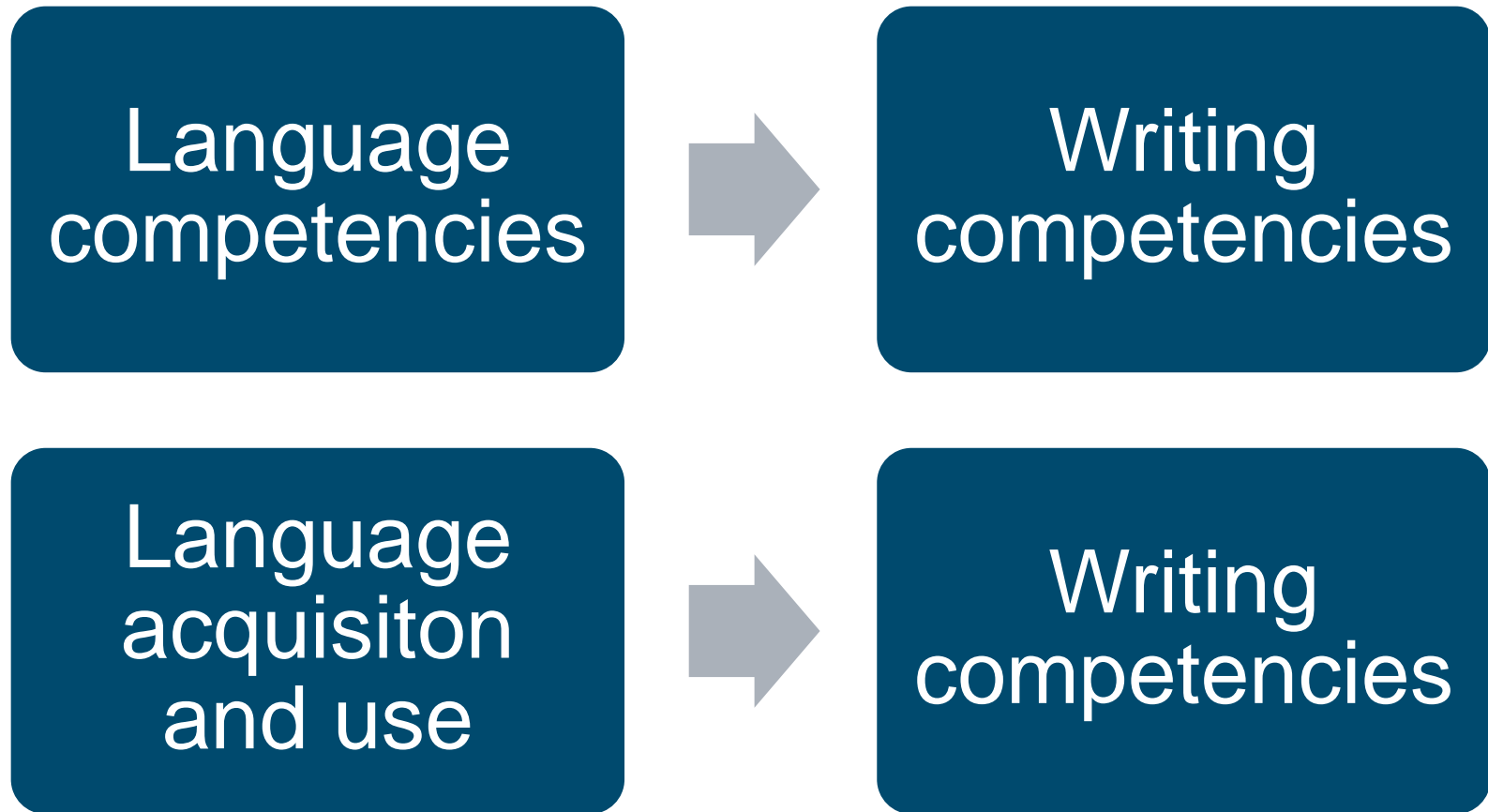
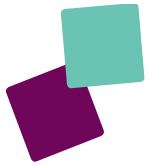
Text Quality



Grade	M(CD)	SD(CD)	M(LQ)	SD(LQ)
5-6	2.19	.66	2.33	.81
7-8	2.23	.82	2.42	.9
9-10	2.71	.86	2.75	.83

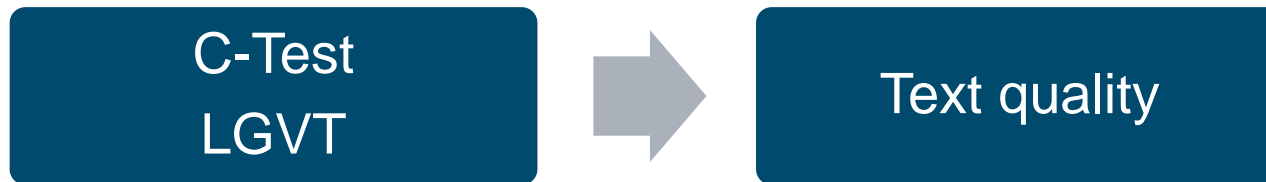
CD: Content development
LQ: Linguistic quality

Research Hypotheses





Model I (language competencies) explained variance R^2



grade	Content development	Linguistic quality
5-6	.262	.178
7-8	.032	.069
9-10	.074	.177
Overall	.07	.081



Model I (language competencies) content development ($p < .001$)

grade	predictor	β	p
5-6	C-Test	1.62	<.001
	LGVT	.01	.433
7-8	C-Test	1.96	.006
	LGVT	.003	.809
9-10	C-Test	1.25	.006
	LGVT	.016	.367



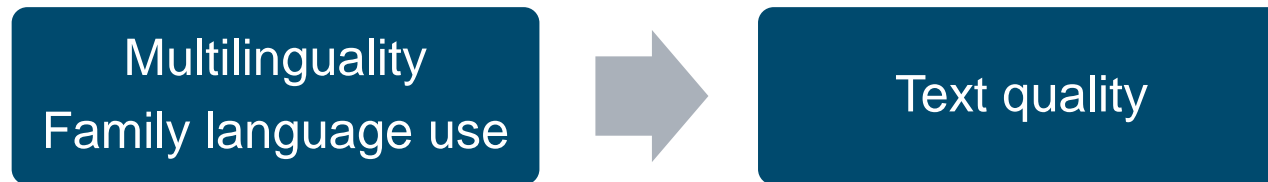
Model I (language competencies)

linguistic quality ($p < .001$)

grade	predictor	β	p
5-6	C-Test	1.808	<.001
	LGVT	-.015	.272
7-8	C-Test	1.397	<.001
	LGVT	.017	.161
9-10	C-Test	1.969	<.001
	LGVT	.016	.316



Model II (language use) explained variance R^2



grade	Content development	Linguistic quality
5-6	.042	.002
7-8	.003	.002
9-10	.01	.019
Overall	.005	.003



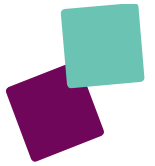
Model II (language use) content development (subgroup 5-6)

predictor	β	p
multilinguality	-.339	.015
Language use in Family	-.06	.578



Conclusion

Conclusion



- No significant effects concerning the student's argumentative writing skills development.
- Argumentative competencies are being affected by general language competencies, reading competencies have no significant effect.
- Weak relationship between multilingual education and argumentative competencies in a subgroup.
- Multilevel analysis is being planned.



EvaFa

Thank you!

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GEFÖRDERT VOM

