



Evaluation of a Seven-year Program on Fostering Reading Comprehension

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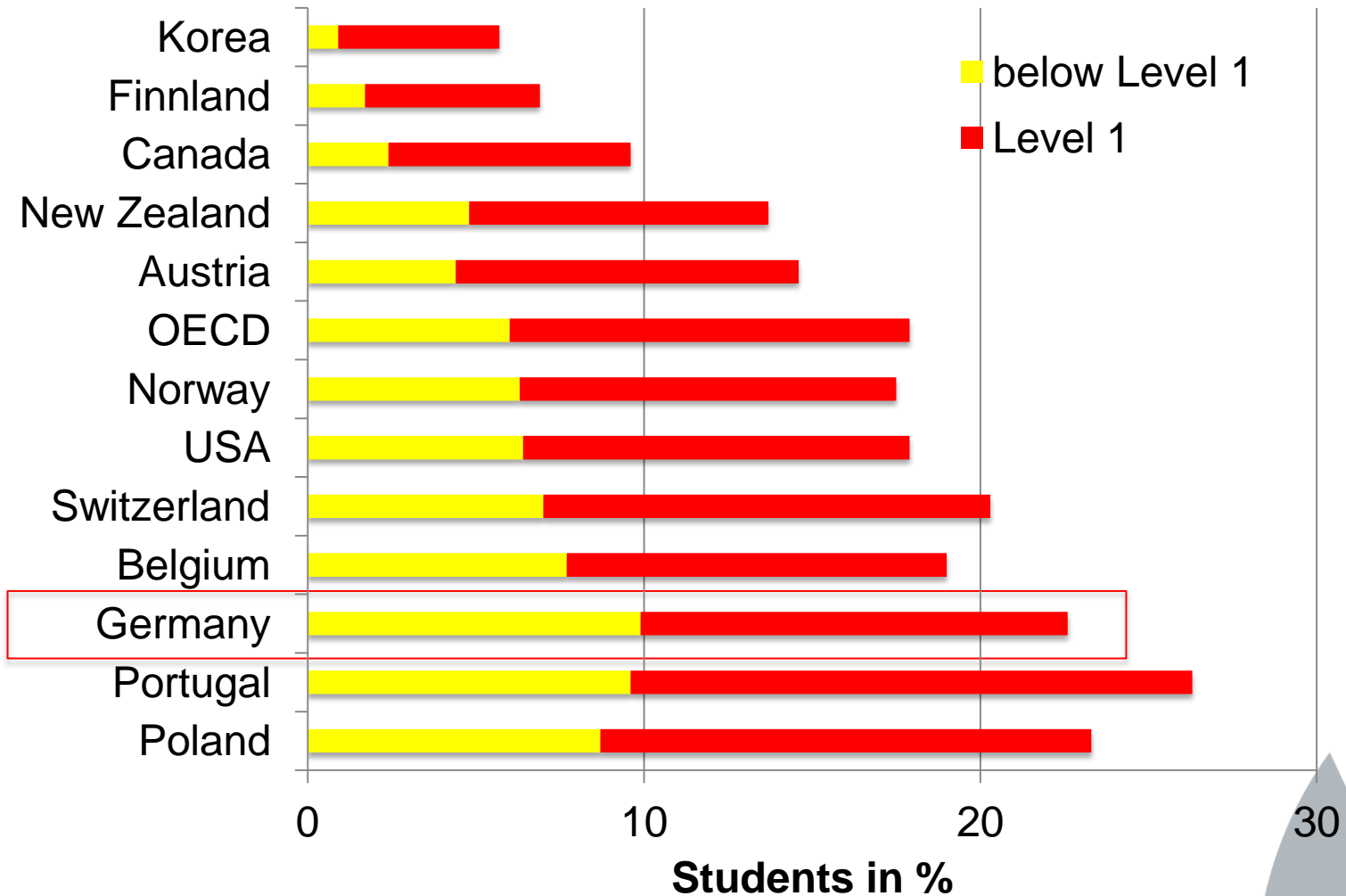
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- Look back in anger: Findings of PISA 2000 in Germany
- Reforms after PISA 2000
- The project *Reading Makes Students Smarter* (RMSS; Lesen macht stark)
- Evaluation of RMSS
 - Study 1: An 18 months evaluation of RMSS
 - Study 2: Effects of reading coaches

Look back in Anger: Findings in PISA 2000

Students at Proficiency Level 1 or below



- Federal States agreed on common educational standards for primary and secondary school
- Many intervention programs on reading comprehension
- Reading comprehension as part of all school subjects
- Language learning classes for students with migration background
- Intensive research on determinants of reading comprehension

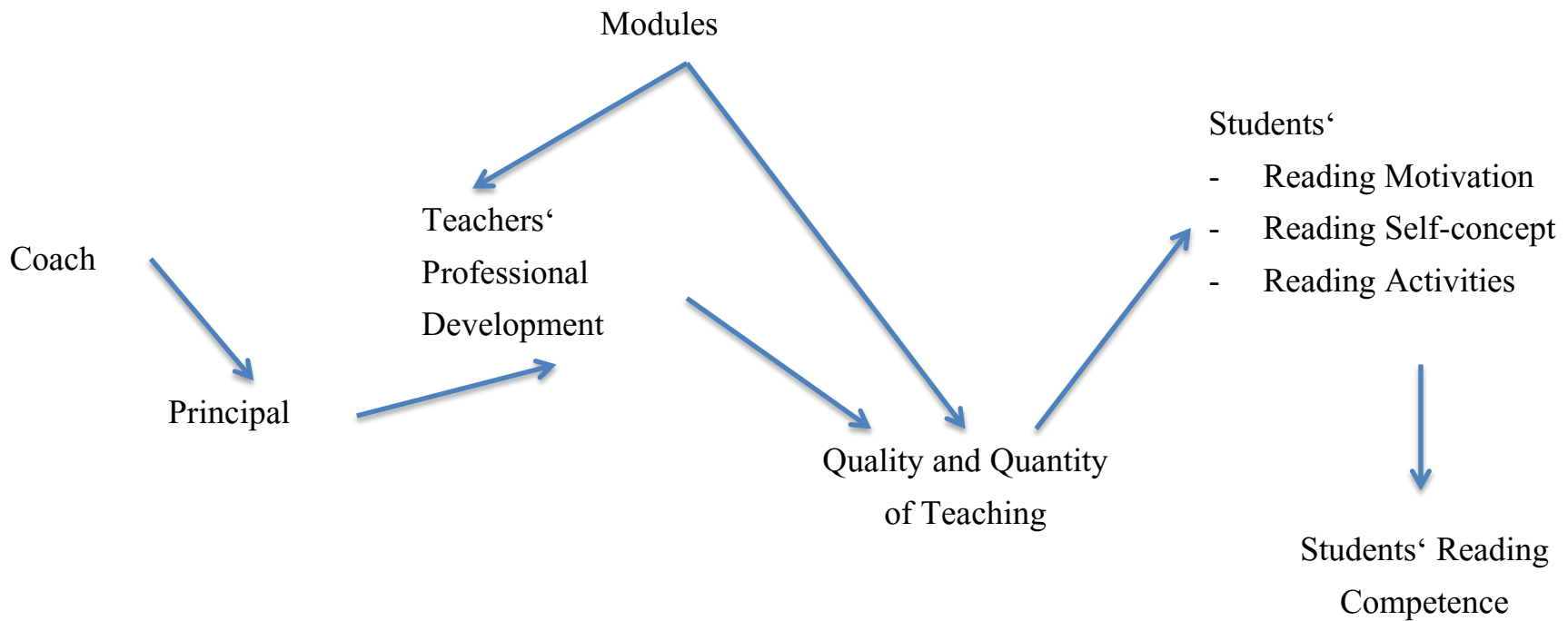
- Problem: Well evaluated large-scale intervention programs were not available

- The good reader is bright, has a lot of prior knowledge, is highly motivated, has a high reading self-concept and has effective reading strategies (self-regulation skills) plus meta-cognitive reasoning (Schiefele, 1996; Artelt, 2001; Guthries, 2004)
- Groups at risk are low SES-students and students with migration background
- Interventions are more successful in younger cohorts
- Long-term interventions are more successful
- Interventions should not only take place within the regular classes but need additional time

Large-scale Intervention Program „Reading Makes Students Smarter“ (RMSS)



- Program started in 2006
- Target Group (at the beginning): Secondary schools with high proportions of poor-achieving students
- 5 Modules
 - Increasing reading time
 - Increasing reading motivation (reading interest)
 - Fostering meta-cognitions
 - Fostering self-regulated reading
 - Self-assessment of progress
- Additional reading classes, additional reading material
- Coaches for principles
- TPD measures for teachers

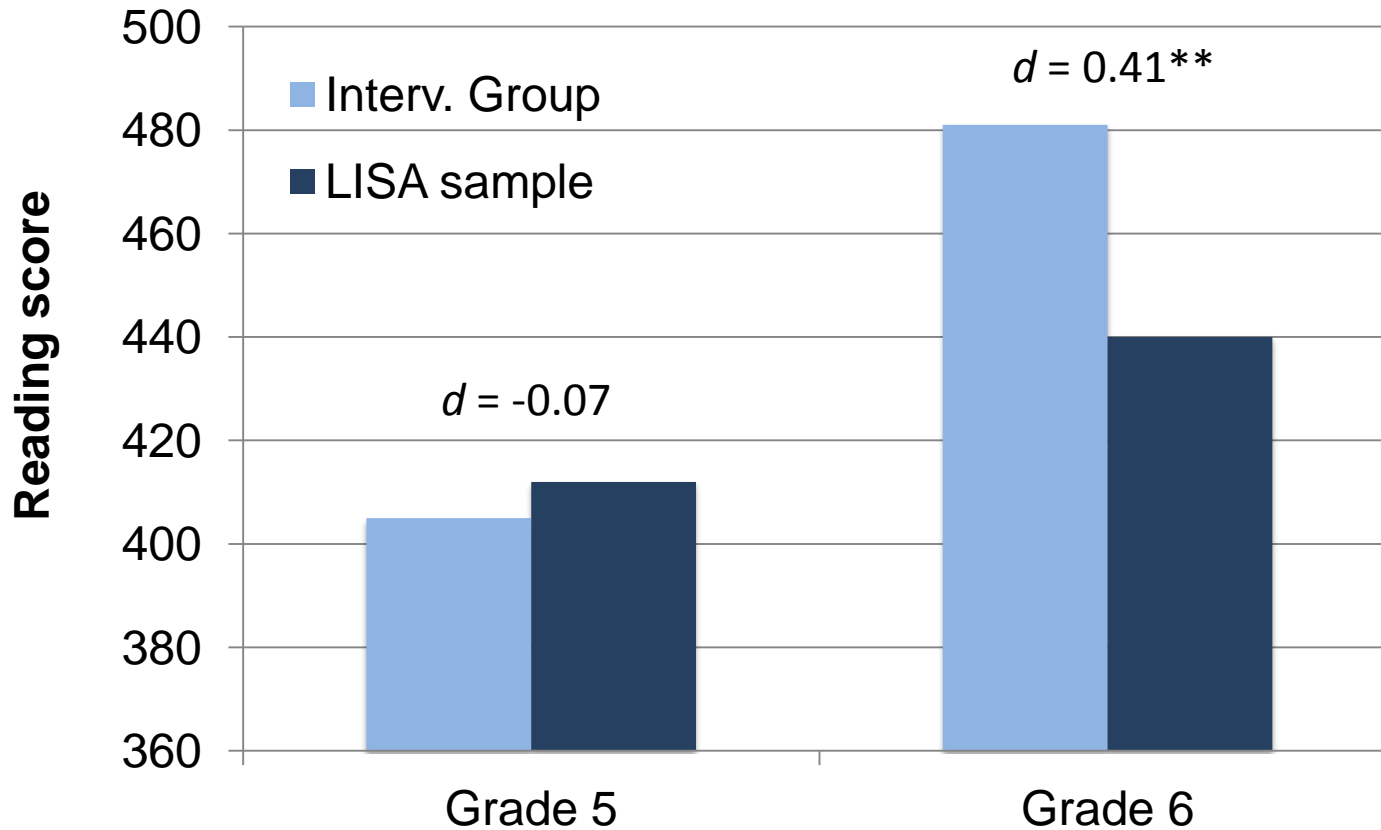


Evaluation of the Program: Shortcomings and Challenges

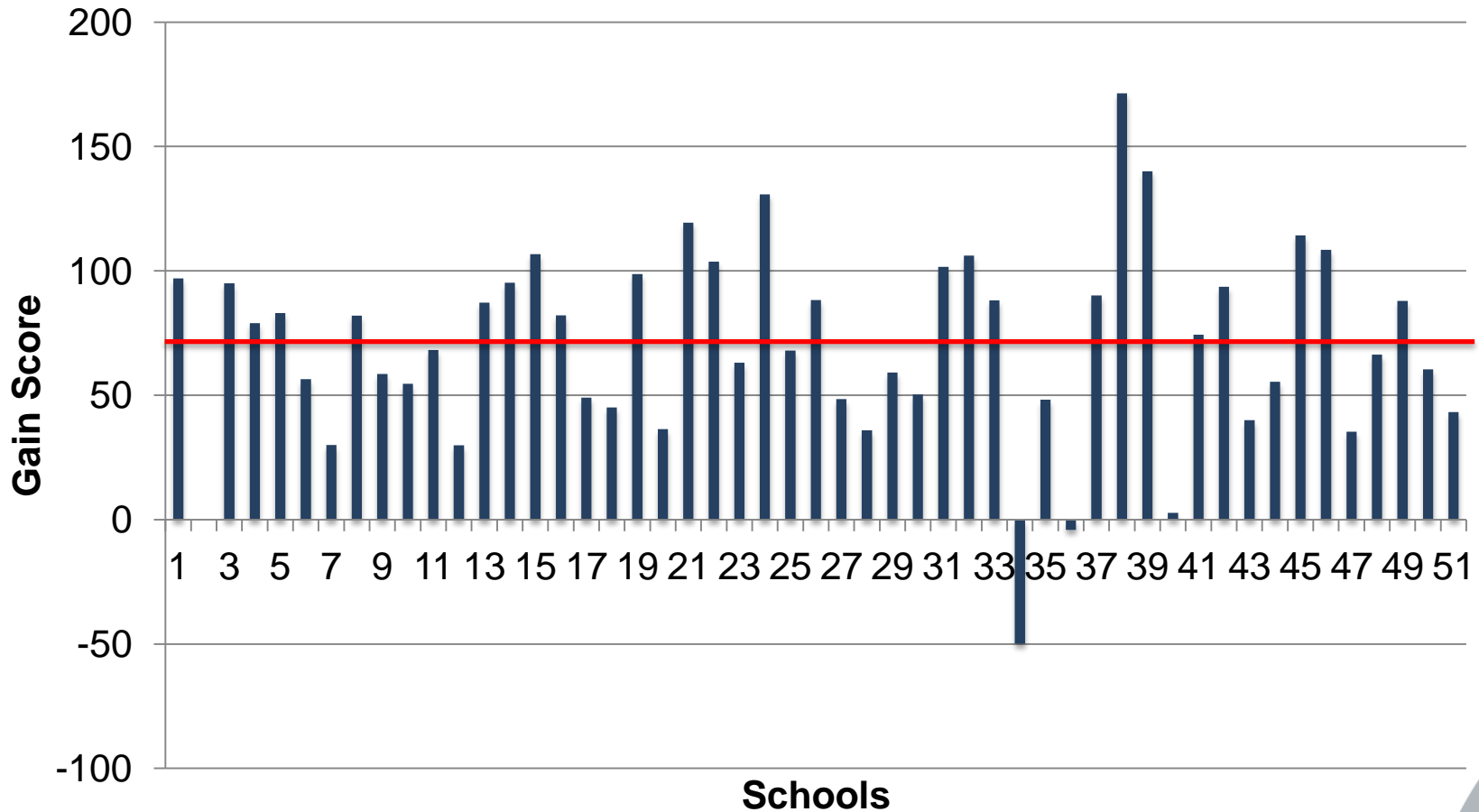
- Program is a universal program for all students of a class even if they are already proficient (we thus expected only small effects)
- Randomized field trial was not accepted by local authorities
- We started with 50 intervention schools; only 13 control classes in grade 5
- In the first year many control classes changed to intervention classes
- However, we could use data from a representative student sample which was part of a research project of the University of Kiel (LISA project; PI: Jens Möller) and worked on some common test items
- Program can only be evaluated as a whole, effects of each module cannot be separated (but see Slavin, 2008; for a justification of this design)

- Two measurement points were realized (beginning of grade 5 and middle of grade 6)
- Data was available from only 50 intervention schools
- Instruments were standardized reading tests that were sufficiently reliable ($>.75$); items came from national and international studies (e.g., PIRLS)
- Tests in RMS- and LISA-schools had some linking items
- IRT-scaling methods were used to build a common scale for both groups

Findings: Reading Comprehension in the Intervention Cohort and in the LISA Sample



Gains over 18 Months Broken Down to Schools of the Intervention Group



- A lot of methodological problems
- Results, however, provide some evidence that the program has been successful
- Analyses on school level shows large differences in students' benefits from the program
- No systematic control of the process quality in the intervention schools
- Teachers' professional knowledge and interaction quality as potential mediators
- Further studies needed that help to explain why schools differ so dramatically in their gain scores

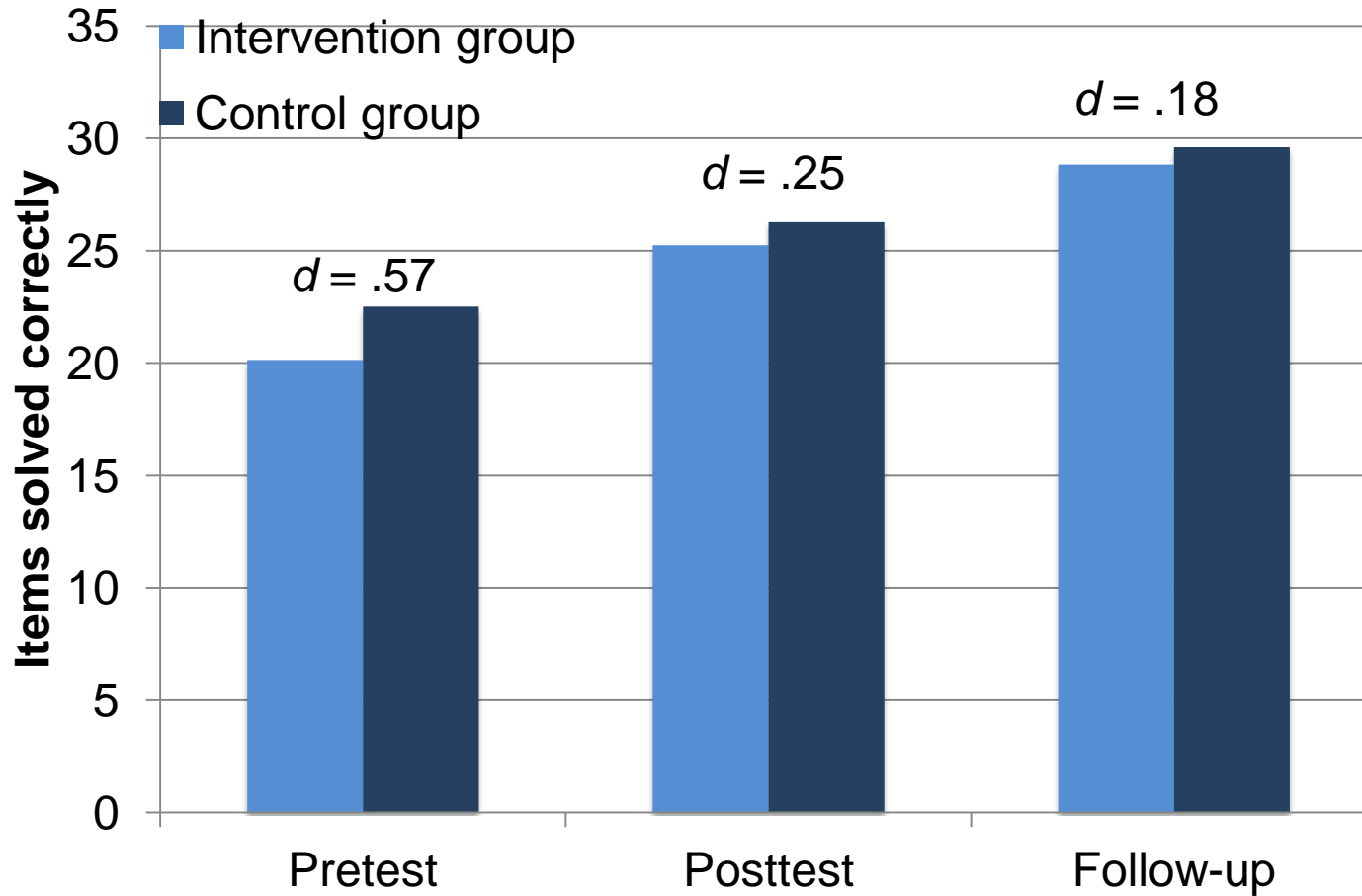
Study 2

- To control for interaction quality, 12 reading coaches (experienced RMSS teachers) received additional training and a standardized curriculum for 16 units
- Reading coaches worked only with poor readers (students in the middle of grade 5) who were screened by means of a standardized reading test (easy test; cut score: less than 28 out of 41 items were solved correctly)
- Each group consisted of a maximum of 10 poor reading students
- Students from 8 different RMSS schools served as a control group; they conducted the “ordinary” RMSS program; only students with less than 28 items solved correctly in the pretest were included
- Additional measurement points were at the end of grade 5 and at the end of grade 6

Design of Study 2

	Pretest (Middle of grade 5)	Intervention	Posttest (End of grade 5)	Follow-up test (End of grade 6)
Intervention Group	◆	◆	◆	◆
Control Group	◆		◆	◆

Results of Study 2



Results of Repeated Measurement ANOVA:

Group \times Time: $F_{2,474} = 3,23, p < .05$

Summary of Study 2

- Again positive effects of RMSS; large gains of poor readers in both groups
- Higher degree of standardization of RMSS intervention had a small but significant effect that was also observable in the follow-up test
- However, remember that the more standardized intervention was restricted to the second half of grade 5
- Overall both studies provided some evidence that the RMSS program can help to overcome some of the problems PISA has found out

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Thank you very much for your attention!

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