Enhancing teachers' reading-related knowledge and perceived skills through professional development programs

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BACKGROUND

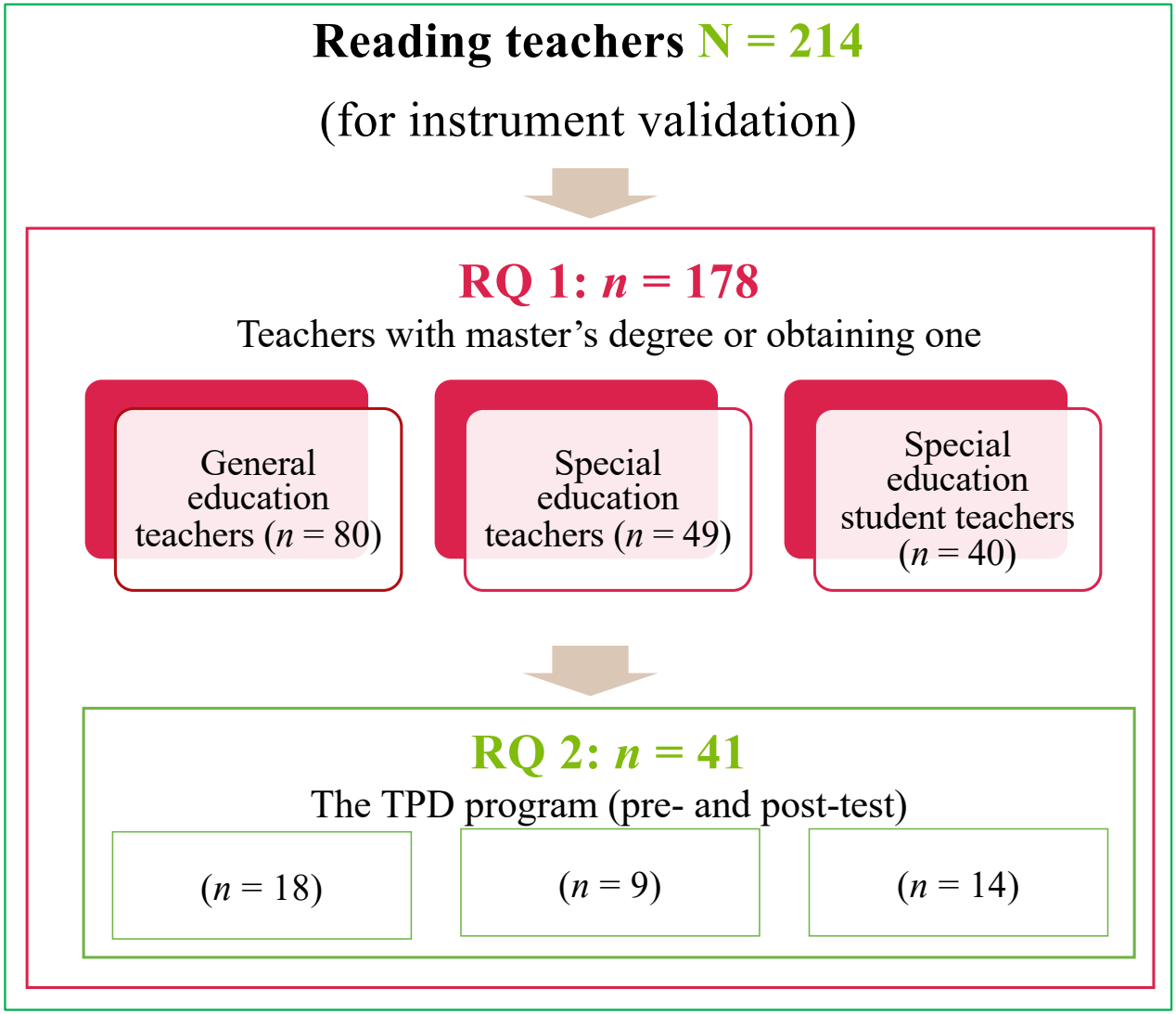
- Teachers' knowledge and skills are crucial for reading instruction, yet persistent gaps highlight the need for targeted professional development to strengthen these competencies and student outcomes (Aro & Björn, 2016; Barron et al., 2018; Basma & Savage, 2023).
- The association between teachers' perceived skills (PS) and actual knowledge is often weak or absent (Aro & Björn, 2016; Washburn et al., 2011).
- Such misalignment between knowledge and PS may reduce teachers' motivation for professional development, limiting improvements in teaching and student outcomes (Andreassen & Bråten, 2011; Parrila et al., 2023; Zhang et al., 2021).

AIMS AND QUESTIONS

This study aimed to examine the relationships among teachers' reading-related knowledge, perceived skills to teach reading, and professional background as well as changes in teachers' knowledge and PS during a practice-based teacher professional development (TPD) program.

- RQ 1: How are teachers' reading related declarative, procedural, and pedagogical knowledge related to their perceived skills?
- RQ 2: How does participating in the practice-based TPD program change teachers' metacognitive knowledge and perceived skills?

PARTICIPANTS



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METHOD

Adapted questionnaire (Aro & Björn, 2016; Schlagmüller & Schneider, 2007; Washburn & Mulcahy, 2020)

- **Teachers' reading-related knowledge** (declarative content knowledge, procedural content knowledge, and pedagogical content knowledge)
- **Teachers' perceived skills** (supporting students' reading motivation, assessing reading skills, and differentiating reading instruction).

A pre- and post-test design was implemented for a subset of the teachers participating in the practice-based TPD program.

METHOD

- **The TPD program** provided comprehensive training for implementing the reading intervention program "We Read" (Juhkam et al., 2023).
  - Based on multiple strategy RC program Reciprocal Teaching (Palincsar & Brown, 1984)
  - Developed for primary schools
  - To support student's awareness of the reading process and reading strategies, to practice using strategies and to target and evaluate their learning processes.
- In addition, the TPD program included practical classroom activities and specific tasks focusing on supporting students' reading motivation, assessing students' reading skills, and differentiating reading instruction.

PRACTICE-BASED TPD PROGRAM „WE READ“ (Juhkam et al., 2023)

Task 3 for teachers: Assessing students' ability to use reading strategies, the level of text comprehension, and group work skills (written analysis)

Training day 1 *(8 academic hours)*

Content: reading (process, development, reading strategies); the theoretical basis of the "We Read" intervention program; practical exercises for implementing the intervention program.

Practical application in the classroom: lessons 1-5

Webinar *(2 academic hours)*

Content: initial feedback from teachers, including teacher guidance, supporting motivation of students.

Practical application in the classroom: lessons 6 and 7

Task 1 for teachers: Assessing students' ability to use reading strategies, the level of text comprehension, and group work skills

Training day 2 *(6 academic hours)*

Content: motivation (theories, development, support); additional techniques for practicing reading strategies and group work; selection and adaptation of texts, monitoring and evaluating students' skills.

Practical application in the classroom: lessons 8-18

Task 2 for teachers: Conducting a written analysis and reflection on the lesson (choose either the 10th or 11th lesson).

Closing seminar *(4 academic hours)*

Content: feedback from teachers; sharing the results of students' assessment; discussing future directions.

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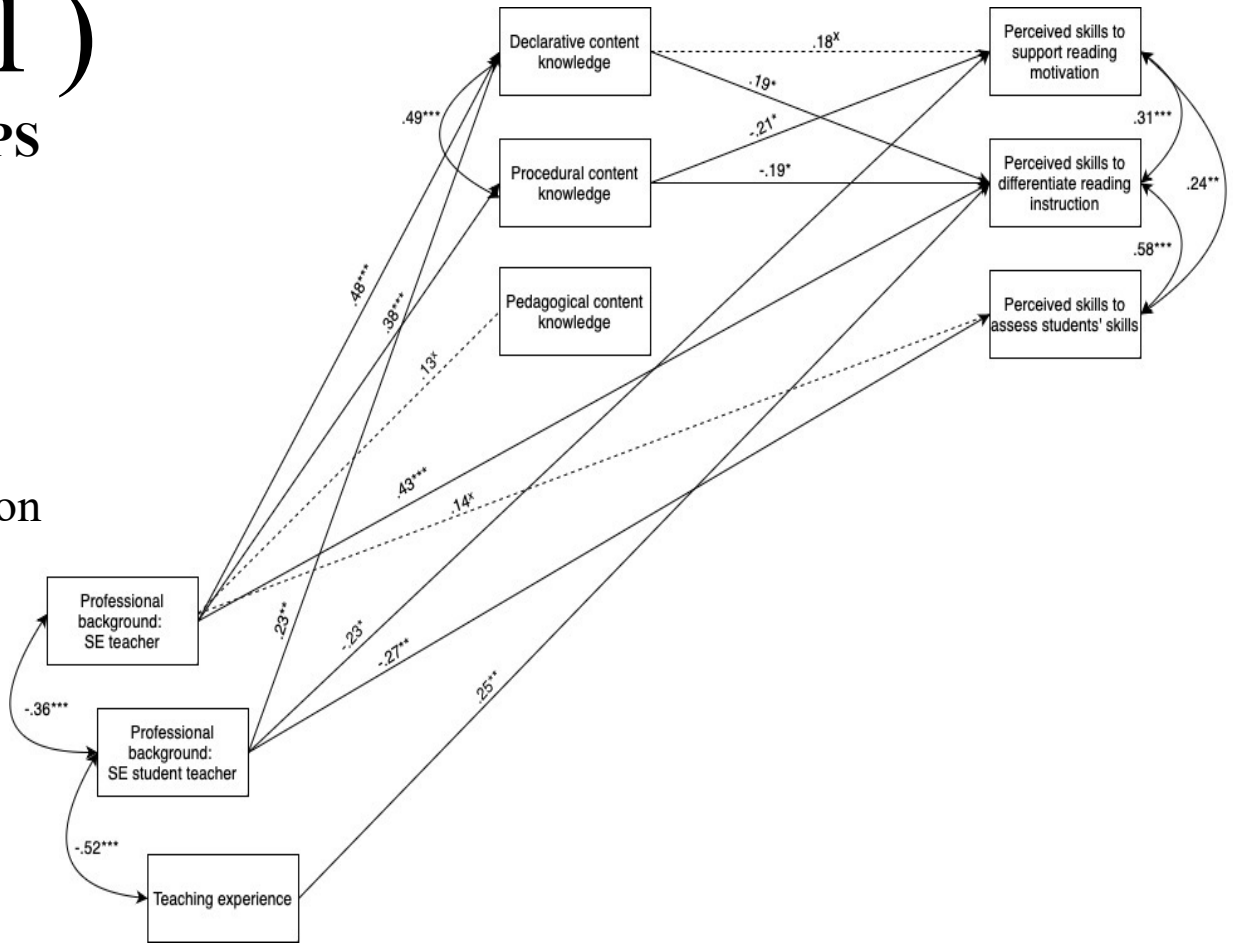
RESULTS (1)

Association between knowledge and PS

- **Positive:** higher declarative knowledge → higher PS in differentiation
- **Negative:** higher procedural knowledge → lower PS in differentiation & supporting motivation

Professional background influenced both knowledge and PS in most of the factors.

Teaching experience → higher PS in differentiation



$\chi^2(1) = 0.27$, $p = .604$, RMSEA = .000, CFI = 1.000

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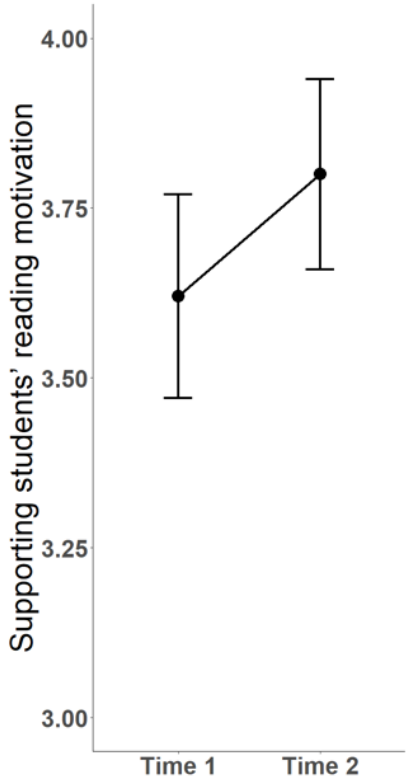
RESULTS (2)

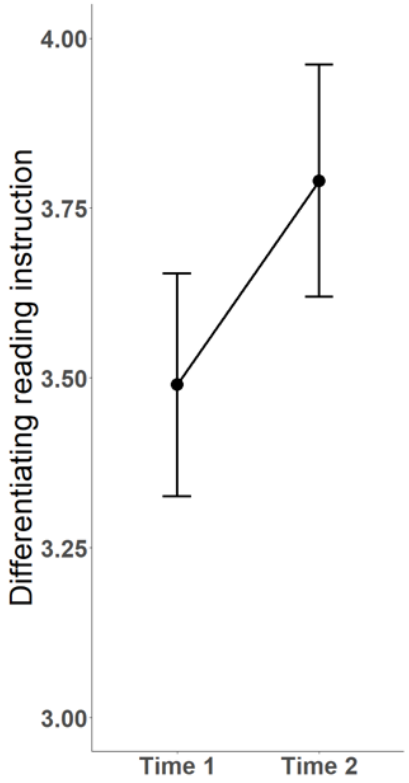
In example:
"To what extent can you meet the needs of students who experience reading difficulties?"
1 - not at all, 2 - very little, 3 - some influence, 4 - quite a bit, or *5 - a great deal.*

Teachers' PS improved form Time 1 to Time 2

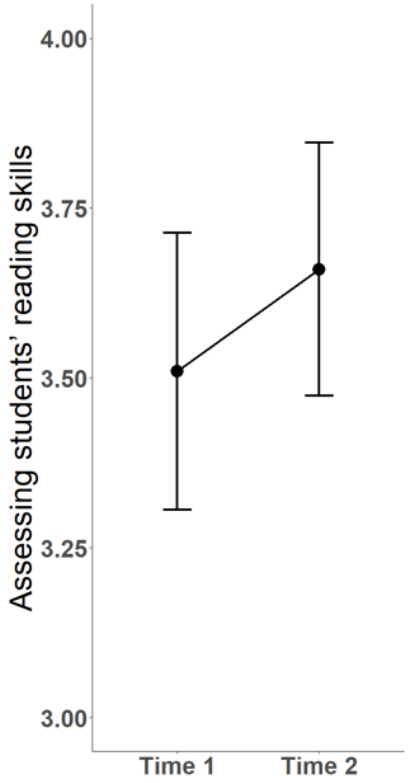
- in supporting reading motivation and
- in differentiating reading instruction.



$t(40) = -2.20$, $p = .034$, $d = 0.34$



$t(40) = -3.54$, $p = .001$, $d = 0.55$



$t(40) = -1.17$, $p = .249$, $d = 0.18$

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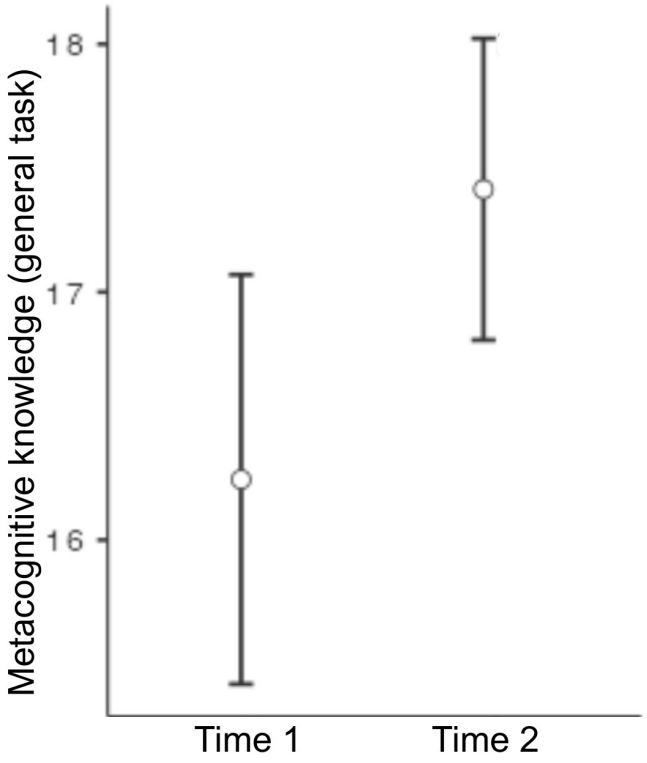
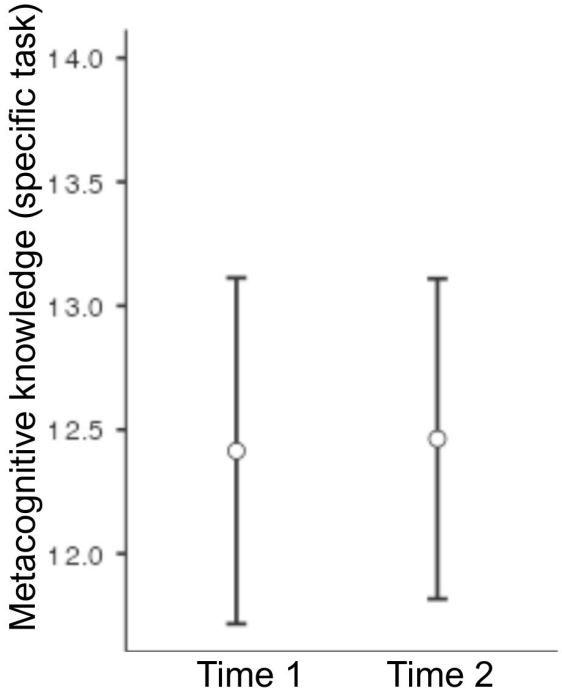
RESULTS (3)

Teachers' metacognitive knowledge for supporting students

- in a general RC task (understanding and remembering a text) increased from Time 1 to Time 2,
- whereas no improvement was in a specific science text comprehension task (learning from a text about how rain forms).



$t(40) = -2.89$, $p = .006$, $d = .45$



$t(40) = -0.12$, $p = .916$, $d = .02$

CONCLUSIONS

- Teachers' reading-related knowledge and PS show both positive and negative associations, shaped by professional background.

  ! Close the gap between what teachers know and what they think they can do.

- Practice-based TPD programs can enhance teachers' PS and metacognitive knowledge (Hudson et al., 2023; Rice et al., 2025) — if they are clearly focused and target key competencies with supporting activities and resources.

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THANK YOU!

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