



Promoting reading comprehension of disciplinary texts for active citizenship: an intervention on disciplinary vocabulary in primary school

Silvia Della Rocca – PhD Student – silvia.dellarocca@unifi.it
Tutor Prof. Christian Tarchi Co-Tutor Prof.ssa Chiara Pecini

Introduction

Reading is essential for academic success and active citizenship (OECD, 2021). To develop critical reading across disciplines, **explicit vocabulary instruction** can help students to acquire knowledge through reading and transfer it across domains (Barnett & Ceci, 2002; Mosher et al., 2024; Surma et al., 2025). However, empirical research on **disciplinary knowledge transfer** through reading in primary school students is still scarce.

Methods



Pre-post experimental study with active control group.



190 4th and 5th graders (mean age= 9.19; Experimental Group **EG**=97; Active Control Group **ACG**= 93; 51.5% girls).



Measures: Reading Comprehension (RC); Disciplinary Vocabulary Knowledge (DVK); Transfer of disciplinary concepts across domains.



6-weeks long intervention on RC and DVK for EG; 1 hour lesson on economic concepts for ACG.

Discussion and Future Directions

The main effect of **level of performance** during the **intervention** was significant for **disciplinary knowledge**, **disciplinary text comprehension**, and **motivation for transfer**, but not for the ability to make inferences, likely due to the transfer task design.

A greater ability to justify the transfer of acquired knowledge to social problems (Barnett & Ceci, 2002) suggests the influence of **teacher modelling** and discussions about definitions of disciplinary concepts.

Improvements are often partial: student may learn concepts or make inferences, but struggle to transfer them to new texts. For this, future research could include measures of **vocabulary depth** as well as **near and far transfer across domains**, and could involve more explicit teacher modelling of reasoning process during the reading of disciplinary texts.

References

- Barnett, S. M., & Ceci, S. J. (2002). When and where do we apply what we learn?: A taxonomy for far transfer. *Psychological bulletin*, 128(4), 612. doi: 10.1037/0033-2909.128.4.612.
- Mosher, D. M., Burkhauser, M. A., & Kim, J. S. (2024). Improving second-grade reading comprehension through a sustained content literacy intervention: A mixed-methods study examining the mediating role of domain-specific vocabulary. *Journal of educational psychology*, 116(4), 550. <https://doi.org/doi.org/10.1037/edu0000868>
- OECD (2021). 21st-Century Readers: Developing Literacy Skills in a Digital World. PISA. OECD Publishing. <https://doi.org/10.1787/a83d84cb-en>
- Surma, T., Vanhees, C., Wils, M., Nijlunsing, J., Crato, N., Hattie, J., Muijs, D., Rata, E., William, D., & Kirschner, P. A. (2025). Developing a curriculum for deep thinking: the knowledge revival. (SpringerBriefs in Education). Springer Cham. <https://doi.org/10.1007/978-3-031-74661-1>

Aim and Research question

This study address the educational need of supporting younger students in recognising relationships between disciplinary concepts in texts and making inferences across domains of knowledge.

RQ1: Is the intervention on vocabulary effective in enhancing students' disciplinary knowledge and reading comprehension?

RQ2: Is the intervention on vocabulary effective in supporting knowledge transfer across domains?

Results

EG divided into **High and Low performance** groups. Repeated-measures ANOVA were conducted to test the efficacy of the intervention and the role of the level of learning.

High performance group

- significantly greater gains in disciplinary concept knowledge ($F(2,173)=3.17$, $p=.045$) and in understanding concepts within the text ($F(1,174)=4.47$, $p=.036$).

- significantly stronger ability to justify the transfer of disciplinary concepts ($F(2,172)=6.91$, $p=.001$), but not making connections with social issues.

