



HAL
open science

Decodable texts: low or high proportion of phonically decodable words to enhance early reading acquisition?

Cynthia Boggio, Adeline Leclercq-Samson, Marie-Line Bosse

► To cite this version:

Cynthia Boggio, Adeline Leclercq-Samson, Marie-Line Bosse. Decodable texts: low or high proportion of phonically decodable words to enhance early reading acquisition?. Society for the Scientific Study of Reading, Jul 2024, Copenhagen, Denmark. . hal-04659756

HAL Id: hal-04659756

<https://hal.science/hal-04659756v1>

Submitted on 23 Jul 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution - NonCommercial - NoDerivatives 4.0 International License

DECODABLE TEXTS: LOW OR HIGH PROPORTION OF PHONICALLY DECODABLE WORDS TO ENHANCE EARLY READING ACQUISITION?

Cynthia Boggio¹, Adeline Leclercq² & Marie-Line Bosse¹

¹ Univ. Grenoble Alpes, CNRS, LPNC, 3800 Grenoble, France; ² Univ. Grenoble Alpes, CNRS, LJK, 3800 Grenoble, France.

INTRODUCTION

Specialists recommend the use of solely decodable texts in initial reading instruction (Castles et al., 2018; HMSO, 2005).

BUT meta-analyses have a more nuanced opinion:

Pugh et al. (2023)
Children with reading difficulty

Murphy Odo (2024)
Children without reading disabilities

Same conclusion: Proposing both decodable and non-decodable texts may be the most effective.

METHOD

14 first grade teachers
Phonics method

222 French student
Mean age: 6.5

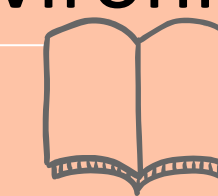
We followed the actual practices of teachers during the first weeks of first grade.

- Septembre → Every day for 10 weeks → Novembre
- Test 1**
- Reading
 - Comprehension
- Collection of decodability rate**
- Texts read by children
 - Graphemes taught
 - Calculation of the decodability rate with Anagraph (Rioux, 2018)
- Test 2**
- Reading
 - Comprehension

OBJECTIVES

- Describe how do the decodability rates of text evolve at the really beginning of the school year.
- Study whether the **decodability rate** and its **range**, in terms of intercept and slope over the first weeks of learning to read, impact the pupils' progress in reading and comprehension.

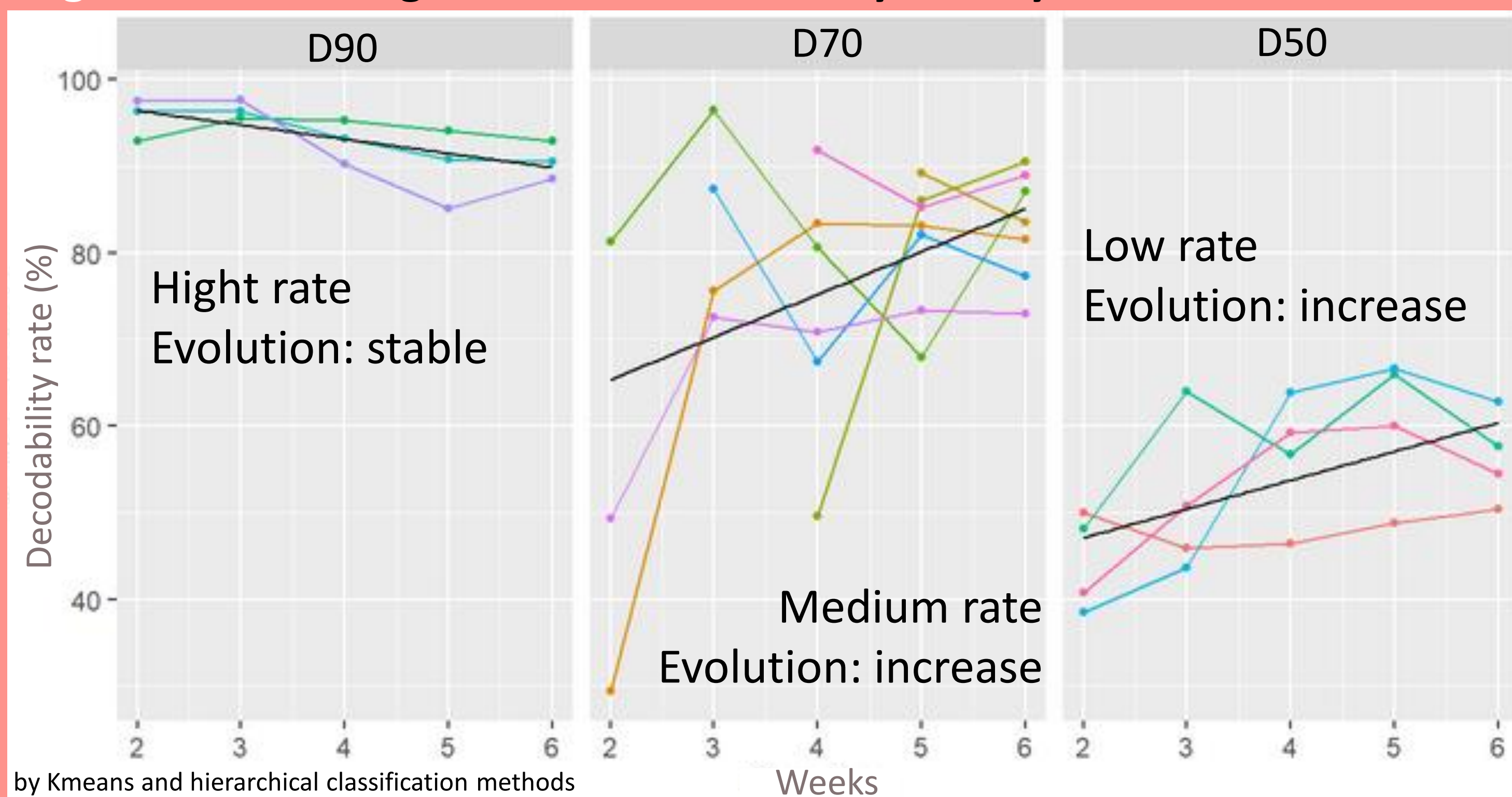
Ecological environment



French language

RESULTS

Figure 1. Linear regression of decodability rate by cluster

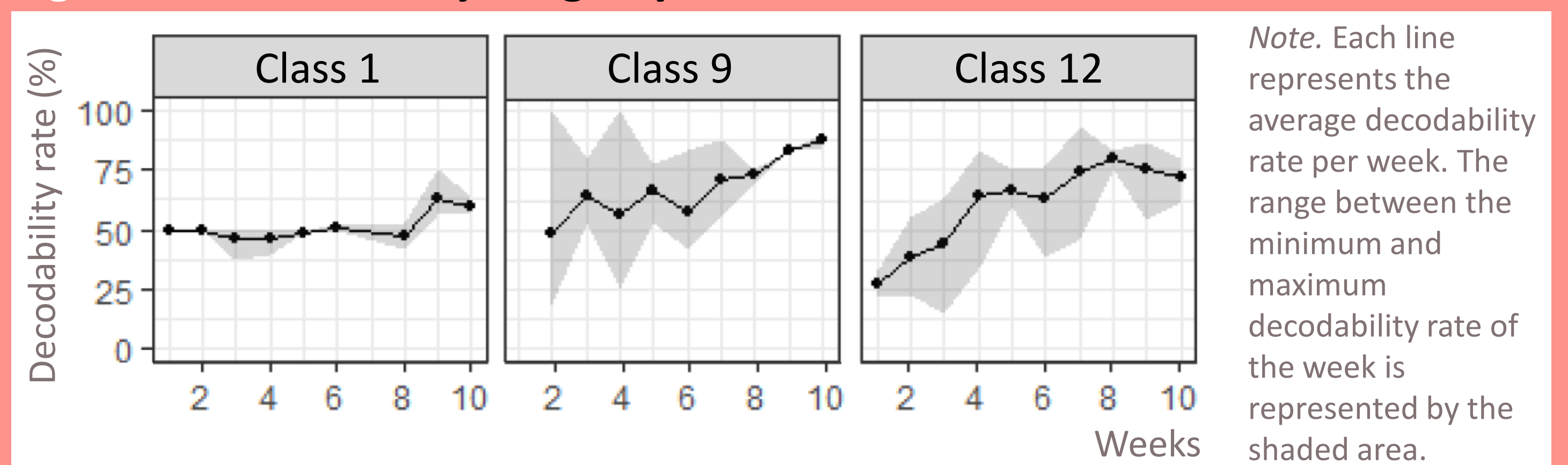


by Kmeans and hierarchical classification methods

Question 1: Description

- High variability across classrooms, but 3 patterns emerged
- After 6 weeks, the gap reduces and the rate concentrates between 70 and 90%

Figure 2. Decodability range by class in cluster D50



Note. Each line represents the average decodability rate per week. The range between the minimum and maximum decodability rate of the week is represented by the shaded area.

Question 2: Decodability range impact

- Reading** – More decodable = Less decodable
 $reading_T2 \sim interceptCluster + penteCluster + reading_T1 + (1 | CLASS) + (1 | ITEM)$
 No effect of intercept ($\beta = -0.004$; $p = .641$) or slope ($\beta = 0.008$; $p = .786$).
- Comprehension** – More decodable < Less decodable
 $comprehension_T2 \sim interceptRangeClass + slopeRangeClass + comprehension_T1 + (1 | CLASS) + (1 | ITEM)$
 The greater the initial range in decodability, the better the progress made in comprehension ($\beta = 0.02$; $p = .01$).
 No effect of the evolution in the decodability range on reading acquisition ($\beta = 0.046$; $p = .12$).

Question 2: Decodability rate impact

- Reading** – More decodable = Less decodable
 $reading_T2 \sim interceptCluster + penteCluster + reading_T1 + (1 | CLASS) + (1 | ITEM)$
 No effect of intercept ($\beta = 0.008$; $p = .258$) or slope ($\beta = 0.007$; $p = .886$).
- Comprehension** – More decodable < Less decodable
 $comprehension_T2 \sim interceptCluster + penteCluster + comprehension_T1 + (1 | CLASS) + (1 | ITEM)$
 The higher the initial decodability rate (intercept: $\beta = -0.017$; $p = .004$), and the higher the evolution of decodability (slope: $\beta = -0.13$; $p = .001$), the less progress is made in comprehension.

CONCLUSIONS

- Teacher practices:** Observations show that none of the 14 teachers used solely decodable texts, despite recommendations.
- Reading performance:** Providing only decodable texts does not impact students' reading abilities.
- Comprehension performance:**
 - Less decodability rates are more effective.
 - Decodability rates should not increase too quickly over weeks.
 - A mix of decodable and non-decodable texts is beneficial.
- Consistency with Research:** Findings align with Pugh's meta-analysis and Murphy's conclusions.

REFERENCES

- Castles, A., Rastle, K., & Nation, K. (2018). Ending the reading wars: Reading acquisition from novice to expert. *Psychological science in the public interest*, 19(1), 5-51.
- HMSO. (2005). *Teaching children to read*, HC 121, Eighth Report of Session 2004-05.
- Odo, D. M. (2018). An Evaluation of the Linguistic and Cognitive Load Word-level Features of Elementary Reading Texts. *Literacy*.
- Pugh, A., Kearns, D. M., & Hiebert, E. H. (2023). Text types and their relation to efficacy in beginning reading interventions. *Reading Research Quarterly*, 58(4), 710-732.
- Riou, J. (2018). La plateforme Anagraph, éléments de contexte et description. *La Lettre de l'AIRDF*, 64(1), 70-71.

Cynthia.boggio@univ-grenoble-alpes.fr

Acknowledgment:

The authors are grateful to the French government (France 2030) for its financial support, managed by the Agence Nationale de la Recherche (ANR), reference ANR-22-FRAN-0008. Funding for this project was also provided by *Les Editions Hatier* and we thank them for their support. Finally, we are very grateful to all the teachers and students who agreed to participate in this study. We would also like to thank the Academy of Grenoble for agreeing to support us in this project.