

Orthographic learning in adult skilled readers

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INTRODUCTION

Throughout their life, adults continue to encounter new words and have to integrate both spoken and written forms in their lexicon to assure fluent reading and correct spelling. However, until recently, literacy research has rather neglected the ongoing acquisition of word specific orthographic knowledge in adults as well as the investigation of the type of learning condition which contributes to it although that remains very challenging in a deep orthography as French.

AIM

Explore the ability of adult skilled readers to acquire new orthographic representations through three different orthographic learning conditions: **reading, oral spelling, written spelling.**

METHODS

Participants

- 23 undergraduate students
- Mean age : 25.1
- No literacy difficulties
- French native speakers

Material

- 36 pseudowords
 - only consistent G-P correspondences
 - containing inconsistent P-G C. (*double consonant, silent letter, complex grapheme*)
 - amount of 208 phonemes with multigraphemic possibilities
 - distributed in 3 lists matched on :
 - type of orthographic inconsistencies
 - averaged graphotactic frequencies
 - averaged number of letters ($\mu=8.91$)

Procedure

- 3 learning conditions
 - 1) Reading aloud only (through a filler lexical decision task)
 - 2) Reading aloud + oral spelling
 - 3) Reading aloud + written spelling
- 4 presentations of each item by examiner (Extra visual presentation in case of spelling error)
- Immediate and delayed assessment of learning by a dictation task of the targets

Scoring

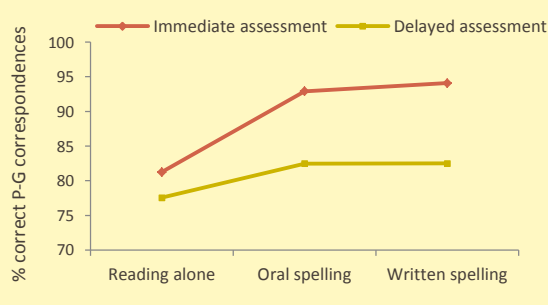
- % of amount inconsistent P-G correspondences correctly transcribed in each condition
 - Immediately after the learning phase
 - One week after the learning phase

In practice

SESSION 1	Learning	<ul style="list-style-type: none">• 6 PM read four times• 6 PM read once and orally spelled four times• 6 PM read once and spelled by writing four times
	Immediate assessment	<ul style="list-style-type: none">• Dictation of 18 PM
SESSION 2	Delayed assessment	<ul style="list-style-type: none">• Dictation of 18 PM
1 week later	Learning	<ul style="list-style-type: none">• 18 remaining PM as in session 1
	Immediate assessment	<ul style="list-style-type: none">• Dictation of 18 PM
SESSION 3	Delayed assessment	<ul style="list-style-type: none">• Dictation of 18 PM
2 weeks later		

RESULTS

Assessment of immediate and delayed learning in each condition



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- Main effect of condition : $F(2,44) = 46.8, p < .001$
- Main effect of moment : $F(1,22) = 133.33, p < .001$
- Interaction effect : $F(2,44) = 14.55, p < .001$

2 Planned comparisons

- Oral vs. written spelling : ns
Im.: $F(1,22) = 1.69, p = .20$
Del.: $F(1,22) = 0.00, p = .99$
- Im. vs. del. assessment in reading condition
 $F(1,22) = 7.95, p < .01$
- Reading vs. oral spelling
Im.: $F(1,22) = 125.76, p < .001$
Del.: $F(1,22) = 9.47, p < .01$
- Reading vs. written spelling
Im.: $F(1,22) = 124.89, p < .001$
Del.: $F(1,22) = 13.24, p < .01$

DISCUSSION

1. It is the first study to show that in adults French-speaking skilled readers, spelling is a more powerful self-teaching mechanism than recoding alone, as it was highlighted by Shahar-Yames & Share (2008) with 9 year olds.
2. In adults, writing words down conducts to better performance than spelling them aloud (see Treiman, 2000). However, it would seem that concerning the acquisition of new orthographic representations, oral and written spellings require a meticulous processing of the identity and the order of each letter in the sequence which lets both equally powerful in terms of self-teaching.

REFERENCES

- Shahar-Yames, D., & Share, D. (2008). Spelling as a self-teaching mechanism in orthographic learning. *Journal of Research in Reading*, 31(1), 22-39.
- Treiman, R., & Bourassa, D. (2000). Children's written and oral spelling. *Applied Psycholinguistics*, 21(02), 183-204.

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