



Note from the CSEN —

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The effectiveness of teaching methods for learning to read. Contributions from the Formalect survey.

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Summary

Nearly one in two students entering second grade reads less than 50 words per minute, the grade-level expectation. And one in five falls far below that expectation, reading less than 25 words per minute. These results raise questions about the effectiveness of current reading instruction methods employed in France. The Formalect survey, conducted in 2021 on a large representative sample of first-grade classes, sought to address the following questions: What teaching methods for learning to read are currently employed in France at the beginning of first grade? And what is the impact of these different teaching methods on students' reading skills?

The purpose of this note is to provide a synthetic answer to these two questions. The findings of the Formalect survey show that implementing a strict synthetic phonics method — that is to say, a method focused on teaching the code of grapheme-phoneme correspondences, without any accompanying memorization activities or global recognition of non-decodable words — is more effective for the acquisition of good fluency and reading comprehension. The difference in effectiveness becomes apparent as early as January of first grade and persists through September of second grade. The discrepancy is even more pronounced for students with weak pre-reading skills at the beginning of first grade, and for those attending schools from low-income backgrounds. Given that this strict synthetic phonics method is currently rarely employed in classes, there is a significant scope for progress in reading instruction in France.

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Nearly one in two students entering second grade reads less than 50 words per minute, the grade-level expectation. And one in five falls far below that expectation, reading less than 25 words per minute. These results raise questions about the effectiveness of current reading instruction methods employed in France. The Formalect survey², conducted in January and February 2021, was specifically designed to investigate the links between reading instruction methods and students' achievement. A total of 9,340 first-grade teachers — nearly 20% of all teachers at that grade level — completed an online questionnaire about their teaching practices during the first few months of the school year. Their anonymized answers were then matched with the anonymized results of their 139,288 students at the national assessments in first and second grades.

Together, they form a large representative sample of first-grade classes in France, enabling us to answer the following two questions: What teaching methods for learning to read are currently employed in France at the beginning of first grade? What are the effects of these different teaching methods on students' reading skills? The purpose of this note is to provide a synthetic answer to these two questions. A research report detailing the characteristics of the survey and presenting all the results and analyses is available at the following address (Deauvieux and Gioia, 2024): <https://www.cmh.ens.fr/publication/etudes-et-documents/lefficacite-des-methodes-denseignement-de-la-lecture/>

The terms of the scientific debate

The debate over reading instruction methods began as early as the 1960s. The initial question can be formulated as follows: should students be introduced to reading through an activity that focuses on decoding letters, or through a "global" approach based on words that must be memorized or guessed based on context? Teaching methods based on the former approach are called phonics methods, whereas those based on the latter are known as whole-word or global methods.

A substantial body of research has clearly indicated that the systematic phonics approach produces better reading outcomes for all students (Castles et al., 2018; Ehri et al., 2001a; Machin et al., 2018; Torgerson et al., 2019). Emphasizing the orderly learning of grapheme-

phoneme correspondences* at a sustained pace at the beginning of the year provides a more effective entry point to reading and greater understanding of written text.

With this point already established, the scientific debate on reading instruction methods has shifted in recent years to focus on the differences in effectiveness between various phonics methods. One particularly open question concerns the more or less rigorous nature of the implementation of systematic phonics instruction (Castles et al., 2018). Should reading instruction focus exclusively on learning the code of grapheme-phoneme correspondences (the so-called strict phonics approach), or should other learning strategies be added, such as whole-word memorization and contextual or semantic inferences to guess the meaning of non-decodable words (the so-called mixed phonics approach)? This question is particularly relevant in the French context. The methods used to

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teach reading in France today are distributed along a strict or mixed phonics continuum.

The current methods used to teach reading in France can be classified into two main categories. The first category corresponds to the use of a strict synthetic phonics method. As early as the beginning of the year, reading instruction is focused on the synthetic learning of the code of grapheme-phoneme correspondences*. In other words, this method entails a progressive and ordered teaching of the graphemes* that students learn to oralize. Students are not offered global memorization of words nor word recognition activities based on the context of a sentence or a drawing. The texts read in class are always fully decodable, based on words that only contain grapheme-phoneme correspondences that have been previously learned in class.

This first approach is often referred to as the "syllabic method" in French. Both terms - strict synthetic phonics or syllabic method - are acceptable, provided they are clearly defined. For the sake of terminological precision, and despite its less frequent use in France, we will retain the expression "strict synthetic phonics method" (or simply "strict synthetic method") throughout the remainder of this text.

The second category, which encompasses most teachers, corresponds to the use of a mixed phonic method. Students discover the code of grapheme-phoneme correspondences* in a more or less systematic way. Simultaneously, students are required to memorize a number of words (commonly referred to as "tool words") and guess other words using various contextual or semantic inference strategies. In other words, they must guess these words or sentences from the context in which they are presented, using a variety of cues. These cues can be pictorial, such as isolated drawings or drawings that illustrate the text as a whole. They can also be decipherable words that precede the unknown word to be identified. For example, the following is written: "I'm going to eat an apple," and the student is asked to guess "apple" because the verb "to eat" precedes it, or because a drawing shows a child eating an apple.

The mixed phonics method allows for a wide range of variations, getting closer either to the strict synthetic phonics method when the learning of the code is systematic, carried out according to a synthetic logic (from grapheme to phoneme*), the total number of words learned is small and the texts given to read are highly decodable, or to the unsystematic phonics method, i.e. strongly whole-word oriented, in the opposite case.

Glossary

Phoneme: The phoneme is the smallest unit of sound that distinguishes two words (/ba/ versus /pa/). There are 36 phonemes in the French language. For example, the word "art" has two: [a] and [ʁ].

Grapheme: A grapheme is a letter or set of letters that represents a phoneme. There are over 130 graphemes in French, so on average one phoneme can be represented by about four graphemes. For example, the phoneme [o] can be represented by the following five graphemes "o" ("domino"), "ô" (hotel), "au" ("hauteur"), "eau" ("chapeau"), and "a" ("football").

Code of grapheme-phoneme correspondences: Alphabetic writing systems transcribe and represent spoken language at the level of its smallest sound components, the phonemes. The code of grapheme-phoneme correspondences is the set of grapheme-phoneme associations of a given alphabetic writing system.

Knowledge of the alphabetic principle (KAP): This term refers to the understanding that the written word encodes the spoken word, and that this written representation of spoken language takes place at the phoneme level. There are several levels of knowledge of the alphabetic principle. The first level is to understand that a word is made up of letters, combinations of letters and sounds ("i"-[i]). The second level is to understand that these combinations vary according to the surrounding letters: the "a" in "patinoire" is read [a], while the "a" in "panthère" is read with the "n", [ã].

Textbooks and teaching methods

In France, learning to read in first grade is largely structured by the use of a textbook. 83% of teachers say they use at least one textbook in class. These teaching materials organize the course of the lesson and students' learning activities. They are designed according to logics related to the categories of methods mentioned above. Some are built according to a strict synthetic logic, while others fall within the broad spectrum of the mixed method.

The 34 textbooks most frequently reported in the Formalecct survey were analyzed and coded according to two dimensions: the decodability rate of the texts provided to students for reading during the September-November period, and the number of non-decodable words that students were required to learn globally during the same period. On the basis of these two criteria, it is possible to distinguish four categories of textbooks:

- **Strict synthetic textbooks** (5% of classes with textbooks). This first category includes textbooks with a text decodability rate strictly above 95%, and no non-decodable words to be learned globally.
- **Frontier textbooks** (9% of classes with textbooks). This second category includes textbooks offering a text decodability rate equivalent to the first category, but also non-decodable words to be learned globally (10 on average).

- **Mixed textbooks** (74% of classes with textbooks). This third category includes textbooks with a text decodability rate between 76% and 95%, and non-decodable words to be learned globally (21 on average).
- **Mixed + textbooks** (12% of classes with textbooks). This fourth category includes textbooks with a text decodability rate of less than 76%, and non-decodable words to be learned globally (28 on average).

Does the use of a specific textbook type impact students' learning outcomes? To answer this question, we used a statistical model to assess the impact of textbook type, while controlling for students' achievement level at the beginning of first grade, their classes' average achievement level, their school's Social Position Index (SPI), and teachers seniority in first grade.

Results of the statistical models indicate that students in classes with a strict synthetic textbook perform better, on average, on national assessments in fluency and reading comprehension compared to students in classes with other textbook types. A series of robustness checks were conducted to test the strength of this statistical result. They were all positive.

Textbook	Type	Decadability rate %	Non-decodable words to memorize	Frequency of use	Rank of use
Je lis j'écris	Strict synthetic	98	0	2%	9
Léo et Léa	Strict synthetic	100	0	2%	10
Buli	Strict synthetic	100	0	Below 1%	32
Trampoline	Frontier	100	8	2%	11
Je lis et j'écris avec Salto	Frontier	98	15	2%	12
Lego	Frontier	97	2	2%	14
Lecture tout terrain	Frontier	100	18	1%	17
Cocoli	Frontier	96	10	1%	24
Méthode explicite	Frontier	98	15	Below 1%	31
J'apprends à lire avec Sami et Julie	Frontier	97	4	Below 1%	33
Taoki	Mixed	82	33	28%	1
Piano	Mixed	95	11	15%	2
Pilotis	Mixed	93	16	12%	3
Un monde à lire	Mixed	88	11	5%	4
Ribambelle	Mixed	84	10	3%	5
Calimots	Mixed	87	14	2%	7
Lire dire écrire avec Ludo	Mixed	94	11	2%	8
À moi de lire	Mixed	89	32	2%	16
Étincelle	Mixed	90	35	1%	18
Bulle	Mixed	77	17	1%	19
Timini	Mixed	93	12	1%	22
Patati patata	Mixed	81	46	1%	26
J'apprends à lire avec Noisette	Mixed	84	10	1%	28
Mona	Mixed +	65	41	2%	6
Chut je lis	Mixed +	44	17	2%	13
École des albums	Mixed +	58	31	2%	15
Gafi	Mixed +	65	23	1%	21
Rue des contes	Mixed +	46	36	1%	23
Ratus et ses amis	Mixed +	48	37	1%	25
À tire d'aile	Mixed +	58	40	1%	27
Grand large	Mixed +	44	22	1%	29
Que d'histoires	Mixed +	66	45	1%	30
Justine et compagnie	Mixed +	42	0	Below 1%	34
Croque lignes	Mixed +	58	41	Below 1%	35

How to read : "Je lis j'écris" is a strict synthetic textbook. Among teachers who have reported using a textbook, 2% have selected this particular textbook. This textbook is the 9th most frequently employed textbook in the surveyed population.

Source : Formalect 2021 survey.

Figure 1. How textbooks were coded in the Formalect survey

To verify that the effect of textbook type truly corresponds to the teaching method it prescribes, we used a second variable to better characterize the actual teaching method implemented in the classroom. This "teaching method" variable was constructed based on the following information: the textbook type used, the fact that teachers declared to follow its recommendations, and the teaching practices declared by the teachers themselves. After considering these different criteria, five distinct types of teaching methods can be identified:

- **Strict synthetic method:** Teachers report using a strict synthetic textbook, strictly following its recommendations, not having students memorizing non-decodable words, and providing them with fully decodable texts to read.
- **Frontier method:** Teachers report using a frontier textbook, strictly following its recommendations, having students memorize non-decodable words and reading texts that are not fully decodable.

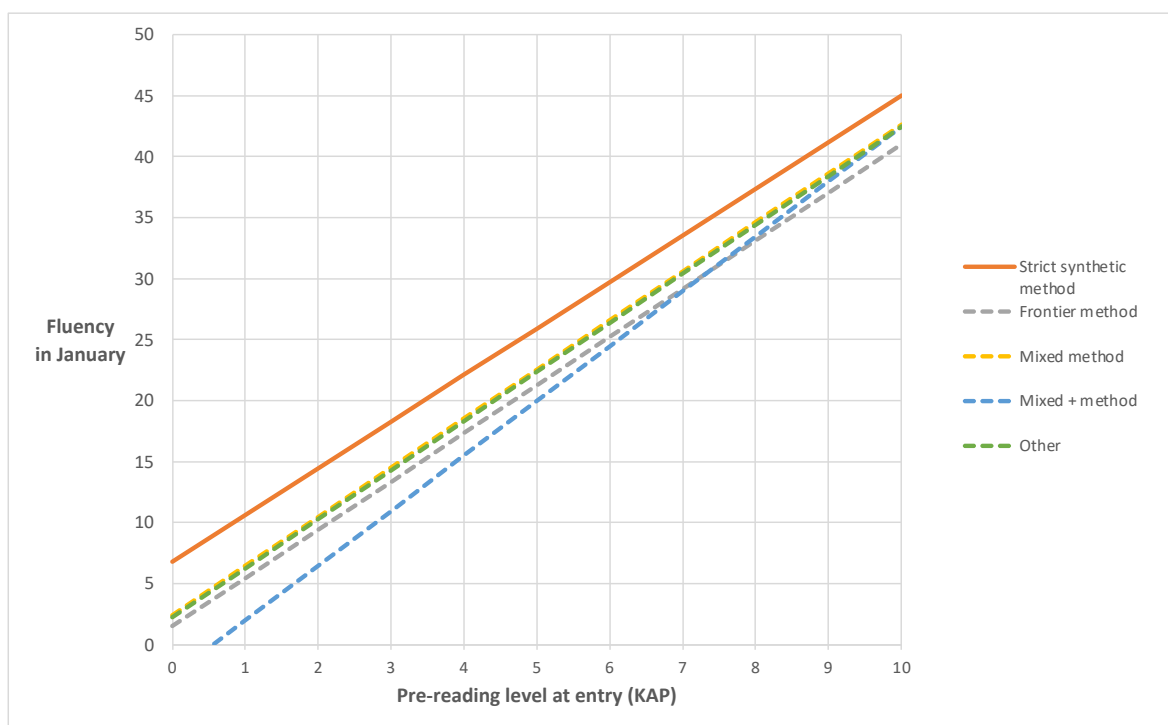


Figure 2. Impact of teaching method on mid-first grade fluency level by students' entry level

- **Mixed method:** Teachers report using a mixed textbook, strictly following its recommendations, having students memorize non-decodable words and reading texts that are not fully decodable.
- **Mixed + method:** Teachers report using a mixed + textbook, strictly following its recommendations, having students memorize non-decodable words and reading texts that are not fully decodable.
- **Other method:** This modality encompasses teachers who do not follow the recommendations of their textbook, regardless of its type, and/or report teaching practices that are at odds with the principles set forth in their textbooks.

To address this question, the same statistical modeling approach was employed as previously described. The effectiveness of teaching methods is therefore assessed among students and classes sharing the same characteristics. Our statistical models thus compare the performances of students who learn with different teaching methods, but have the same achievement level at the beginning of first grade, study in schools with the same social background and whose teachers have the same level of experience in first grade.

Findings show that, on average, students in classes with a strict synthetic method perform better than students in classes with a mixed method (frontier, mixed, or mixed +), regardless of the reading skill being assessed (fluency or comprehension) and of the time frame being considered (mid-first grade or early second grade).

The impact of teaching methods

What is the impact of teaching methods on students' performances in reading speed (fluency) and reading comprehension?

This difference in teaching methods' effectiveness varies according to students' knowledge of the alphabetic principle (KAP)* at the beginning of the first grade. This pre-reading

skill is of paramount importance in the process of learning to read and is part of the kindergarten curriculum. The relationship between students' entry-level knowledge and reading instruction method can be described as follows: the lower the students' knowledge of the alphabetic principle at the beginning of first grade, the greater the difference in the effectiveness of reading instruction methods (**Figure 2 above**).

This relationship between method effectiveness and students' pre-reading skills at the beginning of first grade concerns both fluency and reading comprehension. This phenomenon can be observed as early as January of first grade and persists into September of second grade. The strict synthetic method, which is more effective on average for all students, is therefore even more effective for students with academic weaknesses at the beginning of the year.

The impact of reading instruction method also varies according to schools' social background. The relationship between method effectiveness and the Social Position Index (SPI) of the school is analogous to that previously highlighted for the level of knowledge of the alphabetic principle at the beginning of first grade. The lower the school's SPI — in other words, the greater the proportion of students from low-income backgrounds — the greater the efficiency gap in favor of the strict synthetic method.

Thus, for schools with a relatively high proportion of students from high-income backgrounds (SPI of 7/10), the gap in fluency between the strict synthetic method and the mixed method is estimated to be 2.1 words per minute in January of first grade, and 1.4 words per minute in September of second grade. The gap between the two methods is much more pronounced for schools with a high proportion of students from low-income backgrounds (SPI of 2/10), as it is of 4.6 words per minute in January of first grade and 6 words per minute in September of second grade. Following the same logic, the disparity in effectiveness between methods also varies in reading comprehension.

Conclusion

Reading instruction that focuses exclusively on the learning of the code of grapheme-phoneme correspondences in the first weeks of the school year, without any additional activities such as memorization or global recognition of non-decodable words, is more effective in acquiring good fluency and reading comprehension. In other words, implementing a strict synthetic phonics method produces better learning outcomes than a mixed phonics method. The difference in effectiveness is apparent as early as January of first grade and persists into September of second grade. It is particularly pronounced for students with weak pre-reading skills at the beginning of first grade, and for those who attend schools with a high proportion of students from low-income backgrounds.

Furthermore, the difference in method effectiveness is highly significant for these students. For example, students who enter first grade with a poor knowledge of the alphabetic principle and who attend low-income schools read, on average, 14 words per minute four months after the start of the school year. This reading speed corresponds to the threshold below which students are considered having "fragile" fluency, as defined by the Department of Evaluation of the French Ministry of Education. If those students learn with a mixed method at the beginning of the year, they will, on average, read 12 words per minute in January. However, if students are taught with a strict synthetic phonics method instead, they will, on average, read 18 words per minute, thereby meeting the grade-level expectation in fluency.

Currently, the strict synthetic phonics method is rarely employed in classes. Consequently, the French education system has considerable scope for improvement when it comes to reading instruction. An effective policy for addressing social inequalities in elementary education must prioritize a significant improvement of teaching methods. Findings of

the Formalect survey suggest two relevant levels of action for reading instruction.

The first level of action concerns teaching materials. A considerable number of textbooks are currently employed to teach reading in France. However, those aligned with the most effective pedagogical principles are very rarely used. In recent years, a number of educational systems have implemented various mechanisms to better regulate the selection of textbooks for reading instruction. Regardless of the mechanism, there is little doubt that a significant improvement in the quality of available textbooks would enable teachers to improve the effectiveness of their instructional practices.

A second and crucial level of action is the training of teachers and educational coaches. The professional culture surrounding reading instruction is still informed by outdated pedagogical principles that have been proven to be ineffective. This observation is not unique to France, as it can be found in many comparable countries. Only a significant investment in teachers training can change this situation. The findings of our survey show that the pedagogical quality of textbooks is important, but so is the way they are employed. Improved pedagogical support, based on research findings, is essential to help teachers implementing effective instructional practices for learning to read.

Enabling teachers to choose high-quality teaching materials, developing training programs that are as close as possible to the realities of the classroom and designed for the long term: these are undoubtedly the levers that will provide teachers with the means to exercise informed pedagogical freedom in the teaching of reading. The stakes are high, not only in terms of improving the performances of the French education system, but also in regard to social justice. Currently, too many students, often from low-income backgrounds, are struggling to read at the end of first grade.

For further information

Pedagogy and textbooks for learning to read: how to choose? Summary of the research and recommendations of the CSEN (2020)

Learning to Read: From Decoding to Comprehension. Synthesis of research and CSEN recommendations (2022)

New warning signs in the teaching of reading in first grade. Alert note n° 1 from the CSEN (2022)

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Take-home messages

- The **strict synthetic phonics method**, i.e. teaching the code of grapheme-phoneme correspondences without any memorization activities or global recognition of non-decodable words, is **more effective** than the mixed phonics method for acquiring fluency and understanding of written texts.
- The difference in effectiveness between methods is **particularly pronounced** for students who enter first grade with a **poor knowledge of the alphabetic principle** and for those attending **low-income schools**.
- Currently, the strict synthetic phonics method is **rarely employed** in classes. The scope for progress in reading instruction is therefore considerable.
- A first level of action would be to better **regulate the selection of textbooks** in reading instruction.
- A second level of action would be to provide **better support for teachers** in implementing more effective pedagogical practices in reading instruction. The CSEN advocates for a very substantial investment in the initial training of teachers and their subsequent professional development.