



Teaching reading literacy practices and conditions: looking for differences between English, German and French-speaking education systems (PIRLS 2011)

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Outline

1. PIRLS
2. Reading instruction and effective teaching strategies
3. Reading literacy: Patterns of differences in teaching practices, resources and conditions
4. Conclusions and limitations

PIRLS 2011

PIRLS/IGLU

- PIRLS is an international comparative study initiated by the IEA and headed by Boston College
- Cyclic study taking place every five years (PIRLS 2001, 2006, 2011 and 2016).
- It assesses pupils' reading literacy in their fourth year of schooling.

PIRLS Framework for Assessment of Reading Literacy

PIRLS assessment is congruent with current theoretical reading models that envision reading as an active and interactive process between a text, a reader and a context.

« Readers are regarded as actively constructing meaning and as knowing effective reading strategies and how to reflect on reading (Afflerbach and Cho, 2009; Clay, 1991; Langer, 1995 » (Mullis et al., 2011, p. 11).

PIRLS Framework for Assessment of Reading Literacy

PIRLS focuses on three aspects of student's reading literacy:

- Purposes for reading
- Processes of comprehension
- Reading behaviors and attitudes (engagement).

Reading purposes and processes

Two overarching purposes:

- Reading for literary experience
- Reading to acquire and use information

Four types of comprehension processes:

- Focus on and retrieve explicitly stated information
- Make straightforward inferences
- Interpret and integrate ideas and information
- Examine and evaluate content, language, and textual elements.

What PIRLS does not assess

Nothing below text:

- No comprehension of isolated sentences or words
- No fluency
- No decoding skills.

Characteristics of the assessment

- By design, the texts in PIRLS are rather long (about two pages each); there is little variation in the length of texts.
- The option to use only long texts is not supported by a strong rationale in the PIRLS Framework.
- Struggling readers could be discouraged by the length of the texts; in consequence, there is a risk to artificially increase the proportion of poorly performing readers. Some pupils would perhaps be in a better situation to show their limited skills and abilities if they were confronted to shorter texts.
- ≠ PISA: more variation in the length and texts shorter on average.

Characteristics of the assessment

- Rotated booklet design
- Each booklet has two reading passages
- Each passage is followed by about 12 questions, about half multiple-choice, about half open ended; strong item-dependency.

Percentage of the PIRLS units by purpose and process

PIRLS	
Purposes for Reading	
• Literary Experience	50%
• Acquire and Use Information	50%
Processes of Comprehension	
• Focus on and Retrieve Explicitly Stated Information	20%
• Make Straightforward Inferences	30%
• Interpret and Integrate Ideas and Information	30%
• Examine and Evaluate Content, Language, and Textual Elements	20%

PIRLS 2011: participation

- In 2011, 58 education systems participated.
- Not a fixed set such as « OECD countries »; voluntary participation, changing from cycle to cycle and quite a lot of non-European, non-Western countries.
- In French-speaking Belgium, we select a subsample of education systems with which comparison is meaningful. In PISA, it makes sense to be above average among OECD countries, in PIRLS all EU countries are above average!

Population and sampling

- Fourth year of schooling => as formal schooling starts at different ages (5, 6 or 7), pupils are about 10 in some countries and about 11 in 7 countries (mostly Nordic countries). The average score within these two groups was not different in 2011.
- Two stage sample:
 - 1) selection of schools
 - 2) selection of one (or two) entire classrooms within schools.

Contextual questionnaires

- Pupils, principals, teachers and parents
- Extended information is collected about background and especially learning contexts – teaching practices, opportunity-to-learn, allocated time, preservice and in-service teachers training, human resources.

READING INSTRUCTION

Reading instruction

- In research and on the field, most of the attention goes to early reading instruction: how to teach reading in grades 1-2 (decoding skills), controversies between teaching phonics vs whole language instruction.
- Evidence about teaching effective reading comprehension is less well-known, especially among practitioners, policy makers and public audience.

Reading instruction

- Nevertheless, there is broad research evidence showing that an explicit teaching of reading strategies (modelling, scaffolding) help pupils to improve their reading comprehension skills and is especially beneficial for poor readers (Bianco et Bressoux, 2009; McNamara, 2007; Paris and Oka, 1986; Pearson, 2009; Pressley and Wharton-McDonald, 1997) => **reading comprehension CAN be taught and SHOULD be taught.**

Reading comprehension in classrooms

- Until the early nineties, reading comprehension was not taught at all.
- Reading comprehension was trained and assessed, mainly using “activities” such as reading silently a text and then answering questions (mostly multiple choice).
- Even R. Thorndike, initiator of this kind of practice (“lecture silencieuse/silent reading”) acknowledged that it was not helpful for struggling readers.

What is the situation today in primary education?

- Is an explicit instruction of reading strategies well or better implemented?
- Which kind of material is used for reading?
- Which kind of tasks are used to evaluate reading comprehension?
- How well are teachers prepared to teach reading comprehension and to implement remedial lessons?
- Are teachers helped by reading experts/specialists?
- **Are there differences between education systems?**

Data and methods

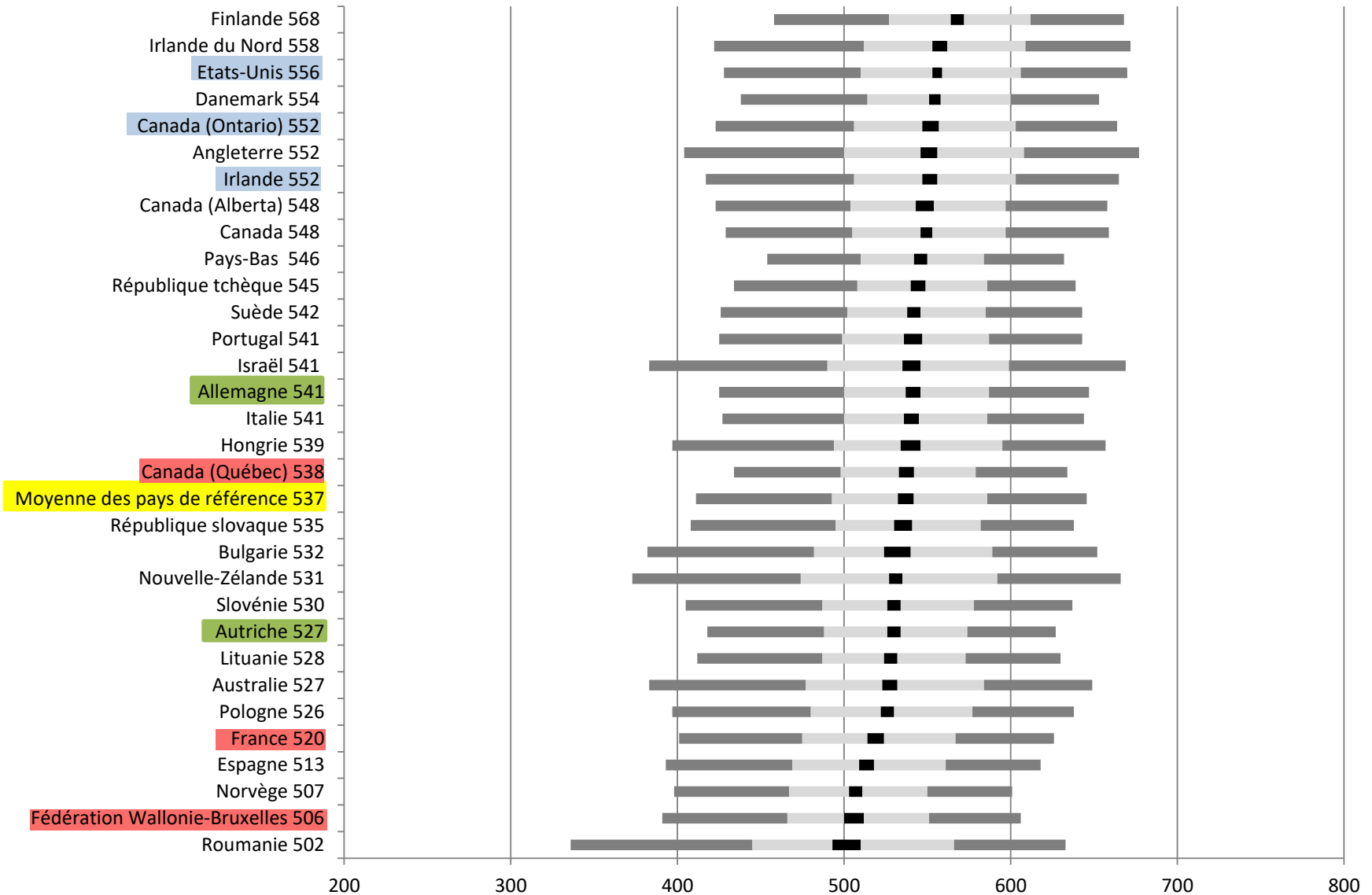
- Data from the teachers' questionnaires of PIRLS 2011 have been used.
- Variables: TEACHING and LEARNING - development of skills/competencies, teaching strategies, type of reading material used, types of activities/assessments used in reading, opportunity-to-learn, allocated time to reading activities, additional human resources, initial and in-service training for teachers.

TEACHING READING PRACTICES (PIRLS 2011)

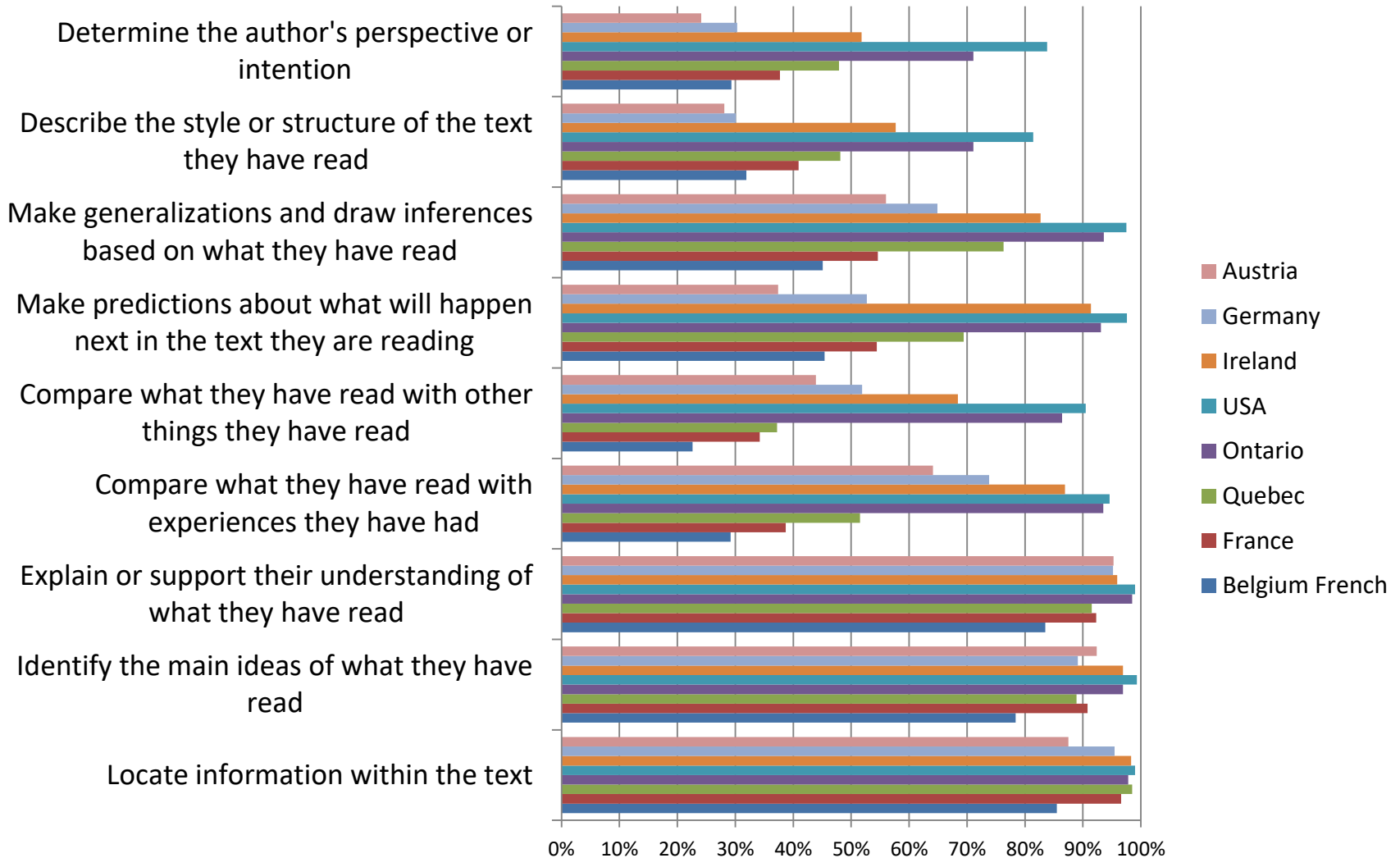
Data and methods

- Countries/education systems:
 - 3 English-speaking (highly performing and formal reading begins at age 6),
 - 3 French-speaking,
 - 2 German-speaking.
- Statistics: mostly descriptive and correlations within country and at the country level.
- First set of tables: % of students exposed to activities at least once a week.

Performance in PIRLS 2011



Skills and competencies

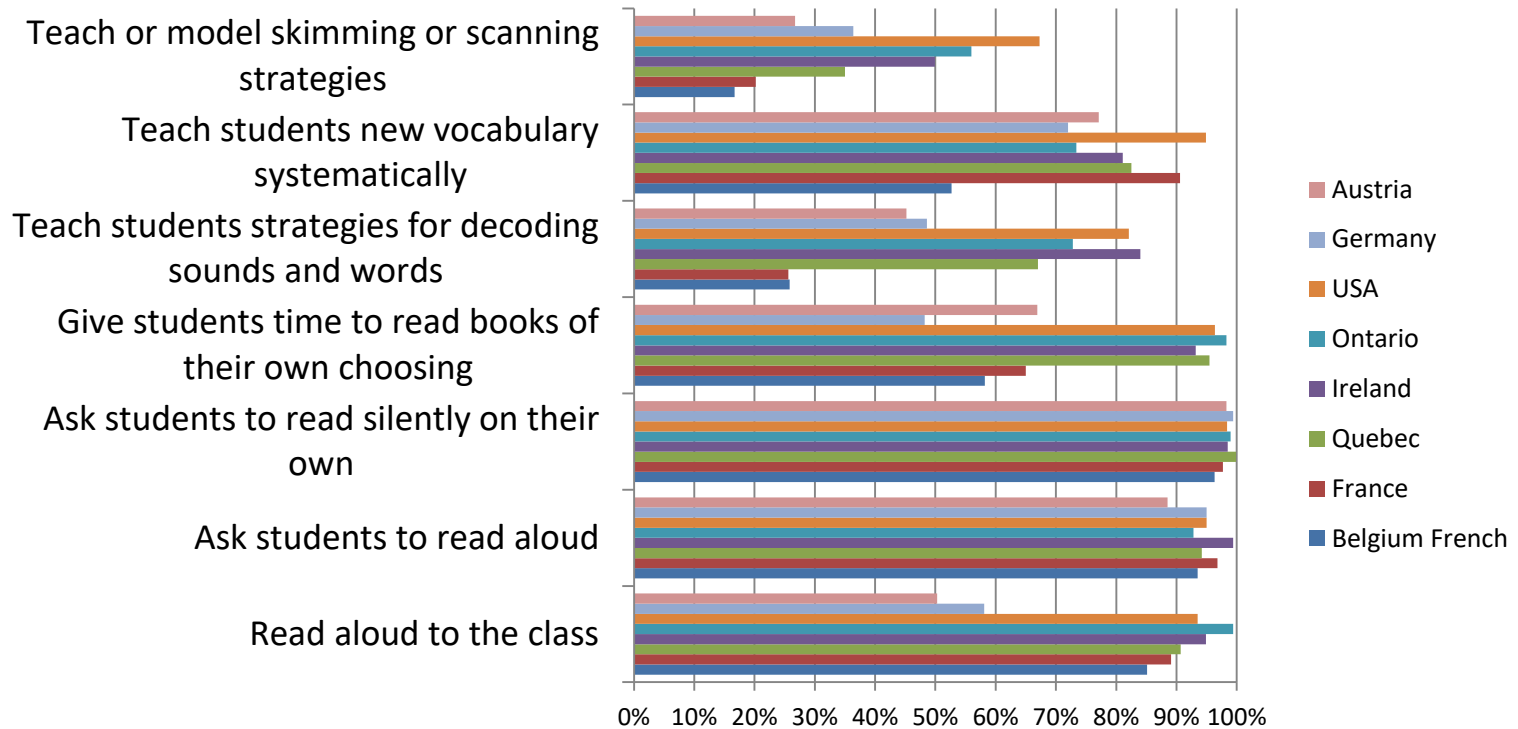


Skills and competencies

- 1) 3 basic skills and competencies very commonly used in all education systems:
 - Explain or support their understanding
 - Identify the main idea
 - Locate information

- 2) 6 more sophisticated skills are quite often used in the US, Ontario, Ireland and less often used in French and German context:
 - Determine the author's perspective or intention
 - Describe the style or structure of the text they have read
 - Make generalizations and draw inferences
 - Make predictions about what will happen next
 - Compare what they have read with other things they have read
 - Compare what they have read with their experience

Activities/teaching practices



Activities/teaching practices

1) 2 activities are very commonly used in all education systems:

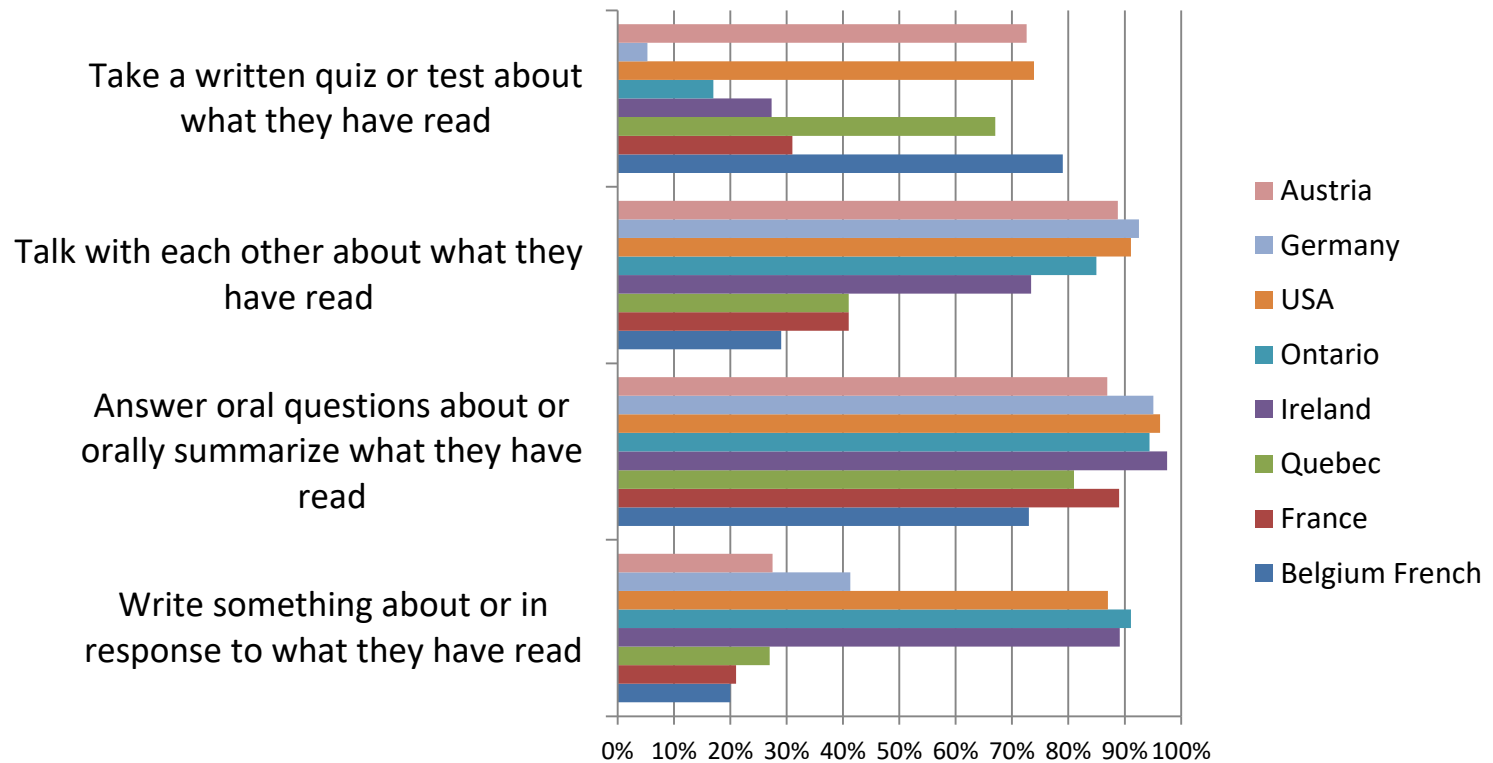
- « *Ask students to read aloud* »
- « *Ask students to read silently on their own* »

2) « *Read aloud to the class* » is common practice in all countries but Austria and Germany.

3) For the 3 other activities and teaching practices, there are noticeable differences between education systems:

- “*Teach students strategies for decoding sounds and words*” is a frequent practice in English-speaking countries and Québec, less frequent in France and Belgium; in the between Austria and Germany;
- “*Give students time to read books of their own choosing*”: same pattern, more autonomy and choice in ES and Québec; limited choice in Germany;
- “*Teach students new vocabulary systematically*” is widespread in all countries but Belgium FS;
- “*Teach or model skimming or scanning strategies*” is not frequent in grade 4 classes, but significantly more often used in English-speaking countries, less frequent in Germany and Québec, and rare in France and Belgium.

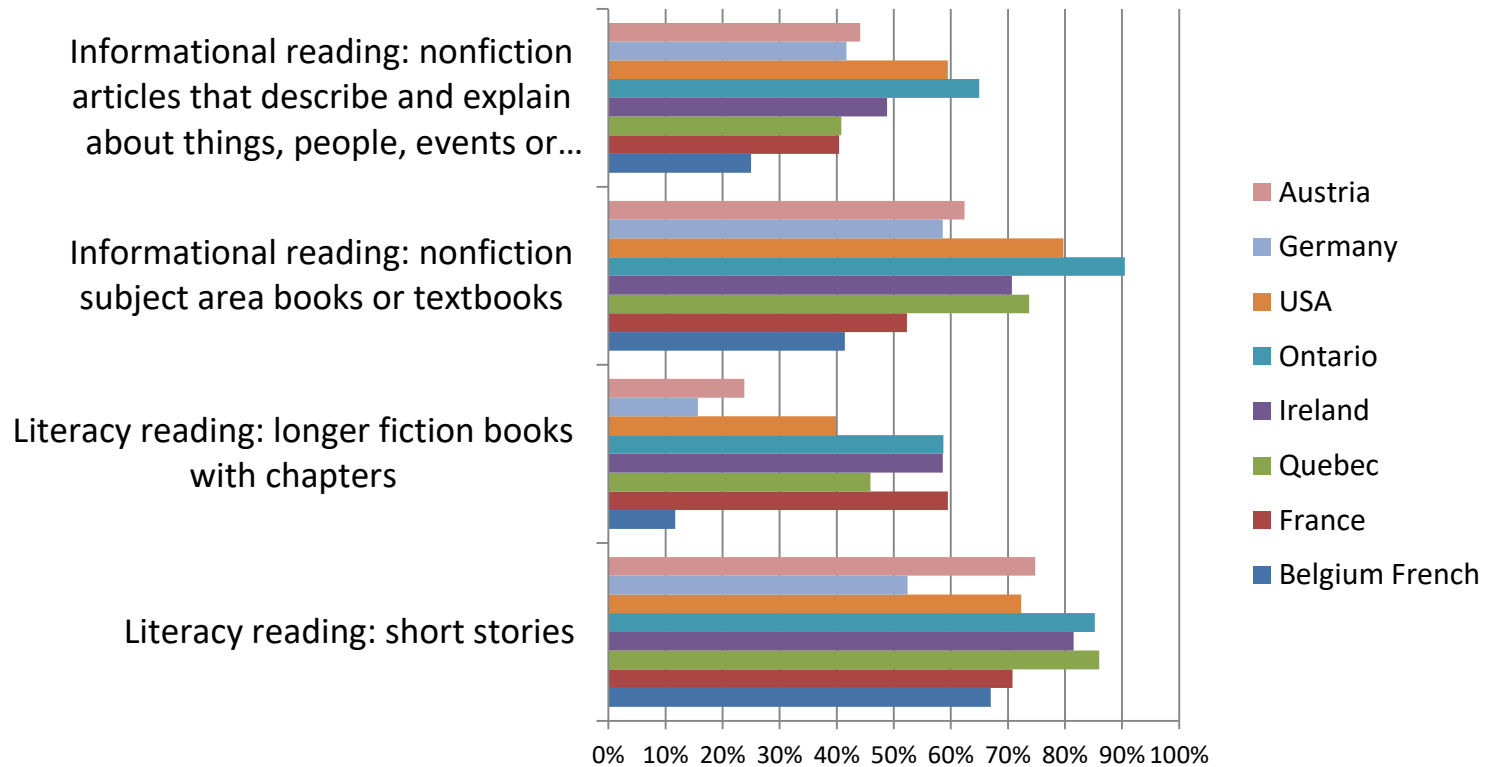
Activities/assessments



Activities/assessments

1. Oral questions or orally summarize are very common practices.
2. Write something in answer is common in English-speaking countries and not common at all in the French or German-speaking ones.
3. Variation in the use of written quizz.

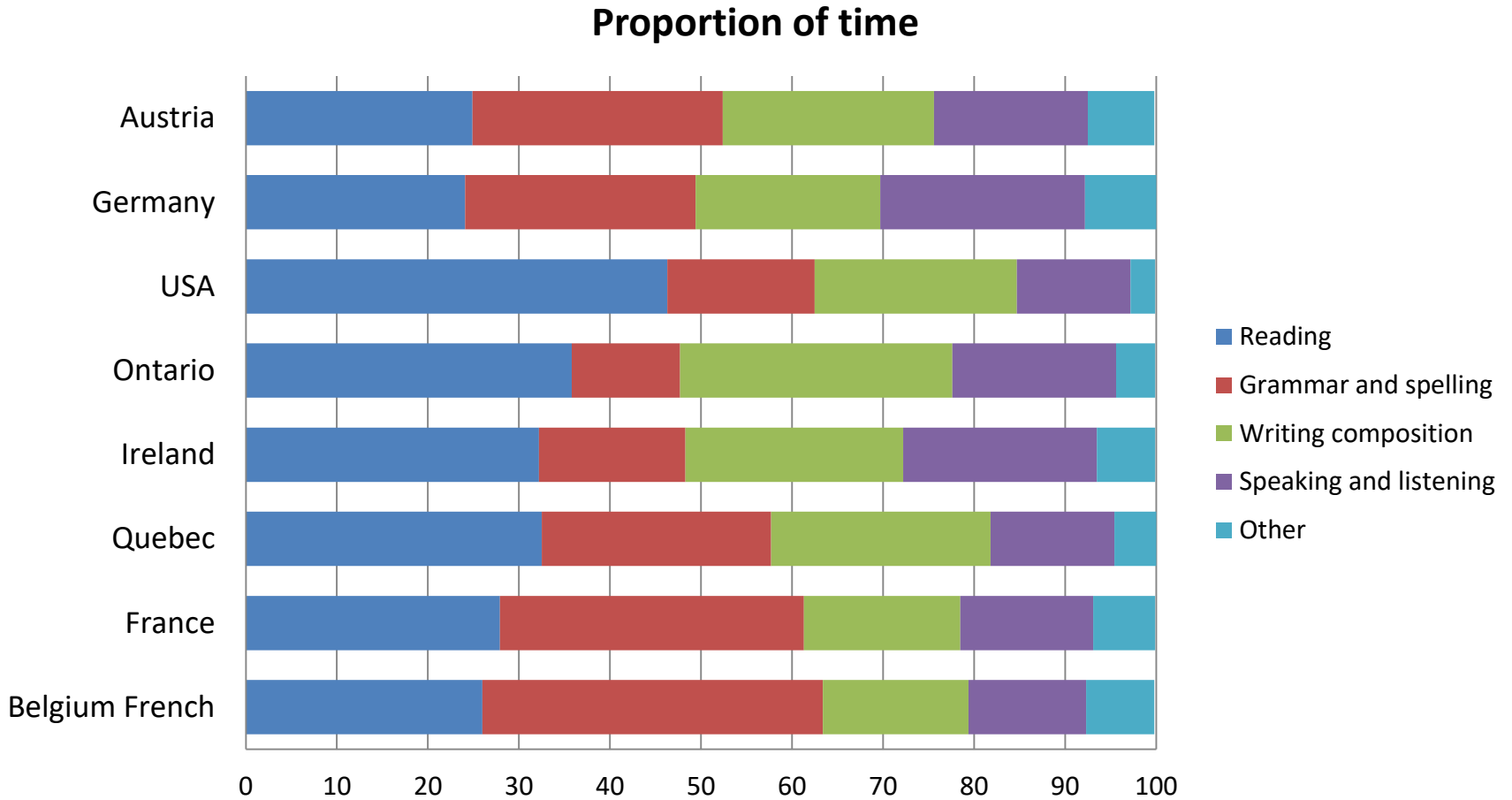
Reading material



Reading material

- No variation in short stories (somewhat less in Germany)
- Non-fiction is more often used in most of the ES countries and in Québec than in Austria, Germany, France and Belgium
- Long fiction books are not used in Belgium, Austria and Germany, much more frequent in Ontario, Ireland, UK and France.

Topics of language instruction (%)



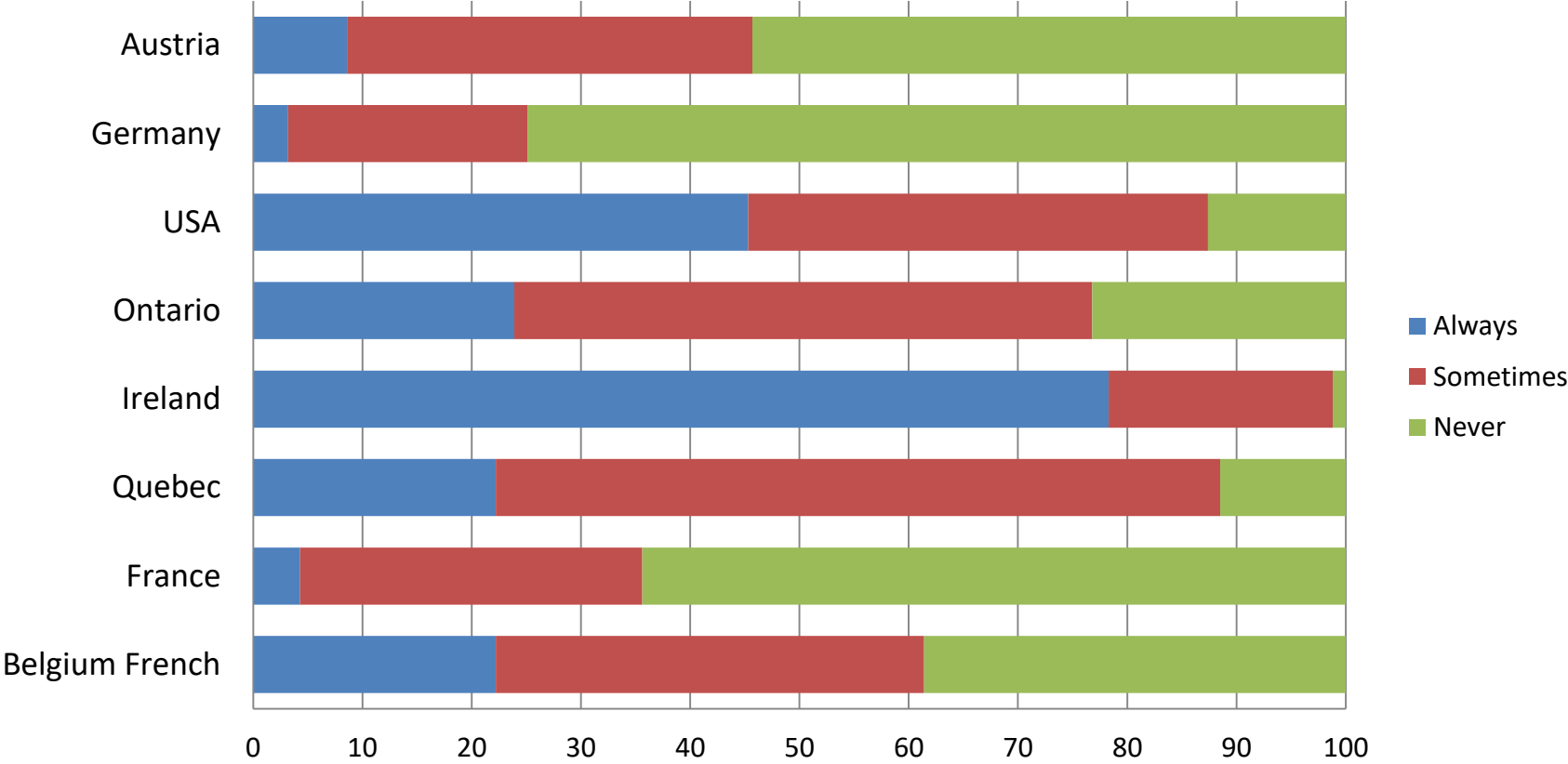
Learning time

- In the 3 English-speaking and Québec, a higher proportion of time is devoted to reading (especially in the US, about one-half).
- In Austria, Germany, France and Belgium, about 25% of the language instruction time is devoted to reading; in France and even more in Belgium a substantial part of language instruction goes to grammar and spelling.

TEACHING CONDITIONS AND QUALIFICATIONS

Human resources to work with struggling readers

A specialized professional

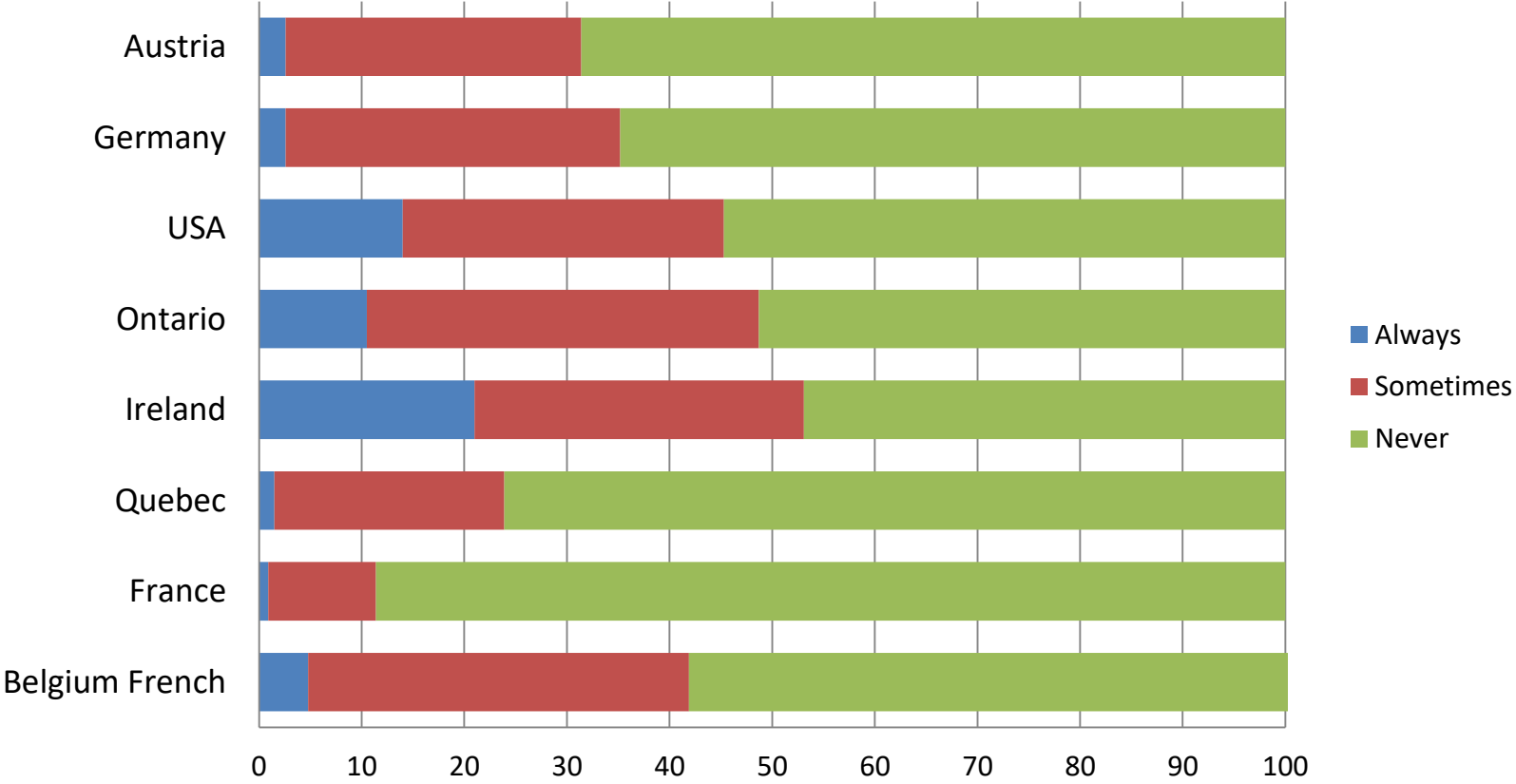


Human resources to work with struggling readers

- Very contrasted situations between English-speaking countries and Québec, and the other education systems.
- In these latter countries, teachers are alone, in the ES and Québec, they are supported by specialists or another teacher.

Human resources to work with struggling readers

A teacher-aide



Ratio need/effective remedial

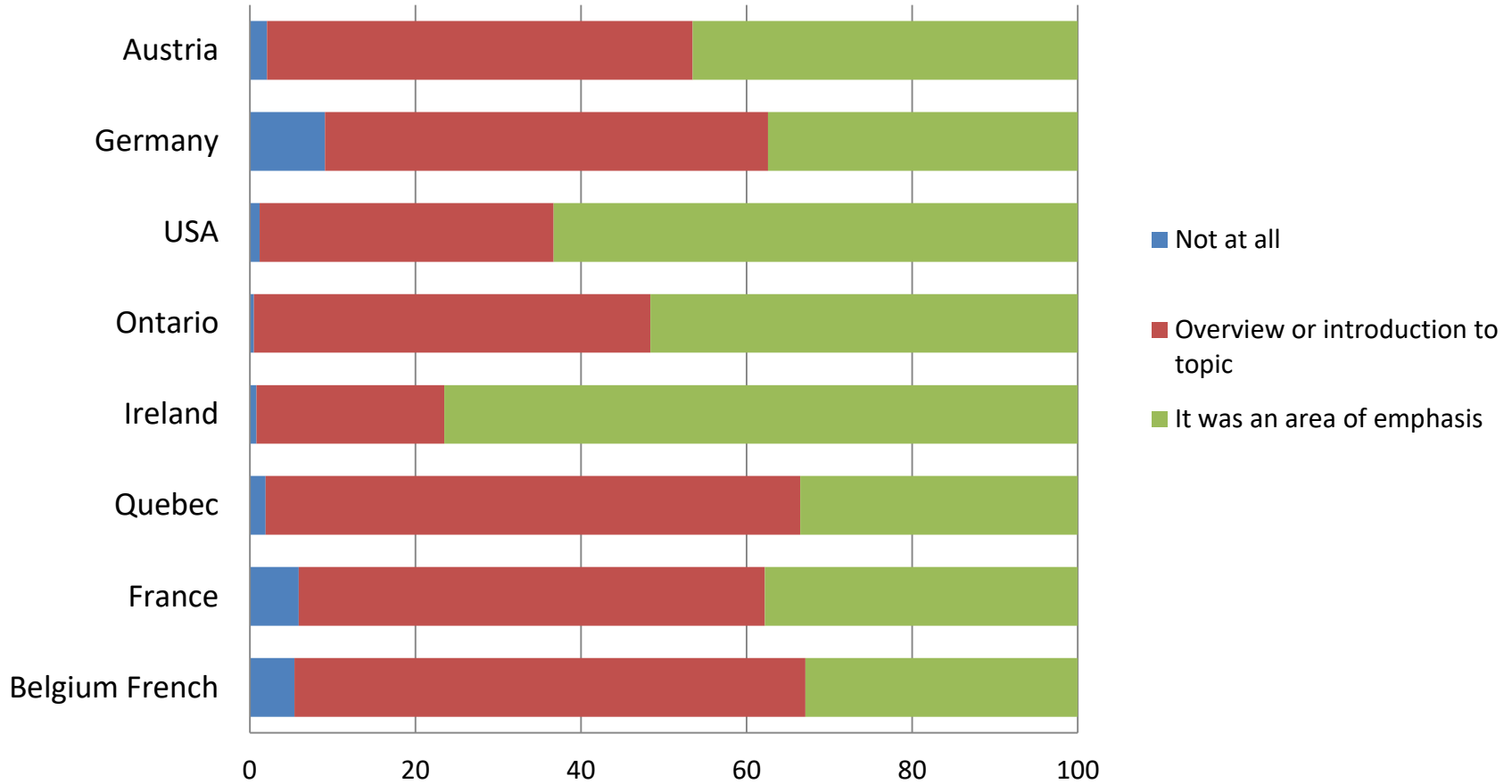
Belgium French	32%
France	72%
Quebec	75%
Ireland	78%
Ontario	67%
USA	77%
Germany	47%
Austria	72%

Human resources to work with struggling readers

- As a consequence, the ratio between pupils needing remedial instruction according to their teachers, and the ones effectively getting it substantially varies from country to country.
- The situation is much better in the English-speaking countries, Austria, France and Québec than in Germany and Belgium (one half to two thirds of struggling readers are left behind).

Preparation to teach reading

Pedagogy/teaching reading

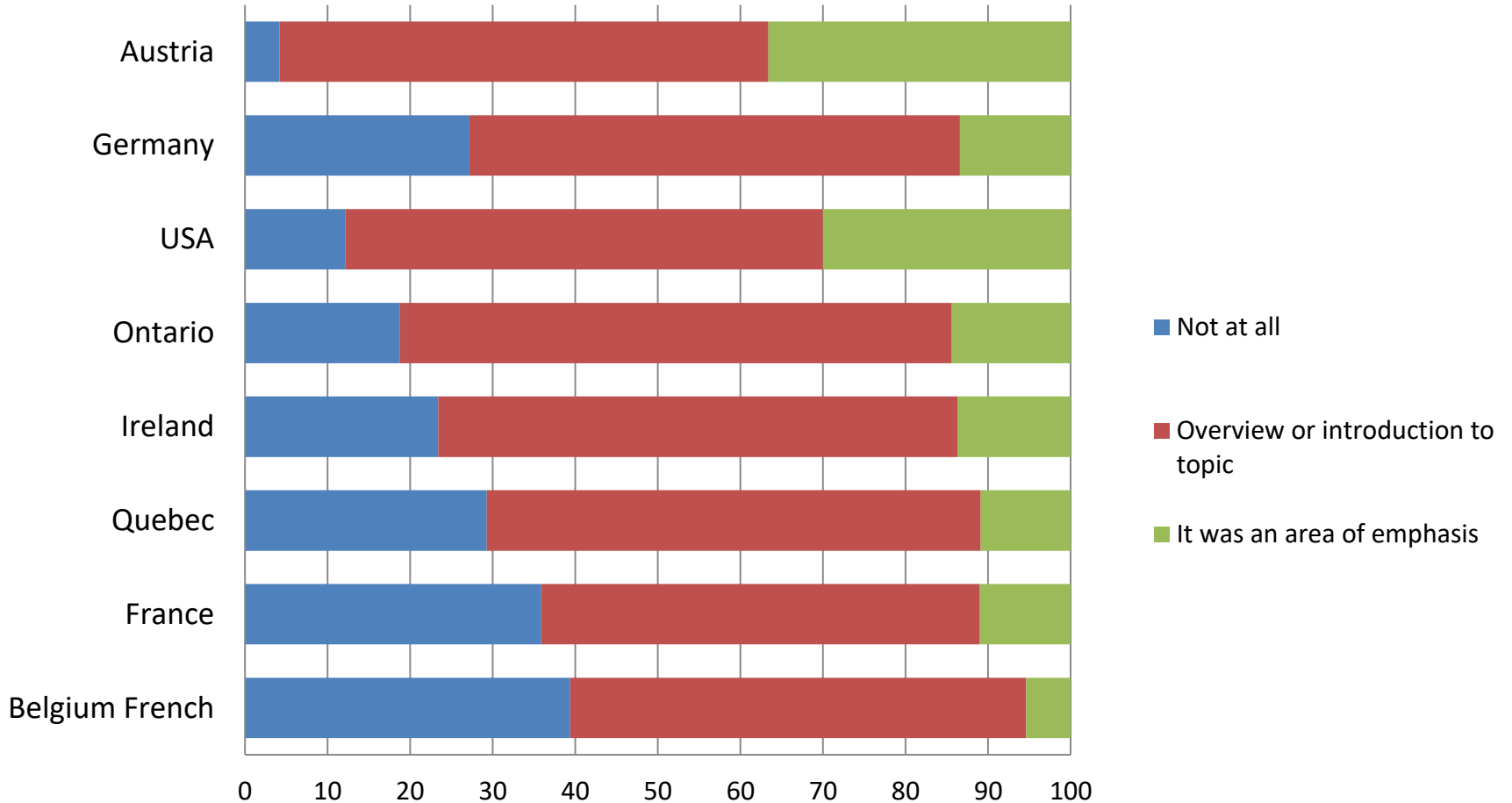


Pedagogy/teaching of reading

- Teachers are well-prepared in the US and in Ireland, quite well-prepared in Austria and Ontario.
- In Germany, France, Québec and Belgium, more than 60% of the teachers only got an introduction or an overview about teaching of reading.

Preparation to teach reading

Remedial reading

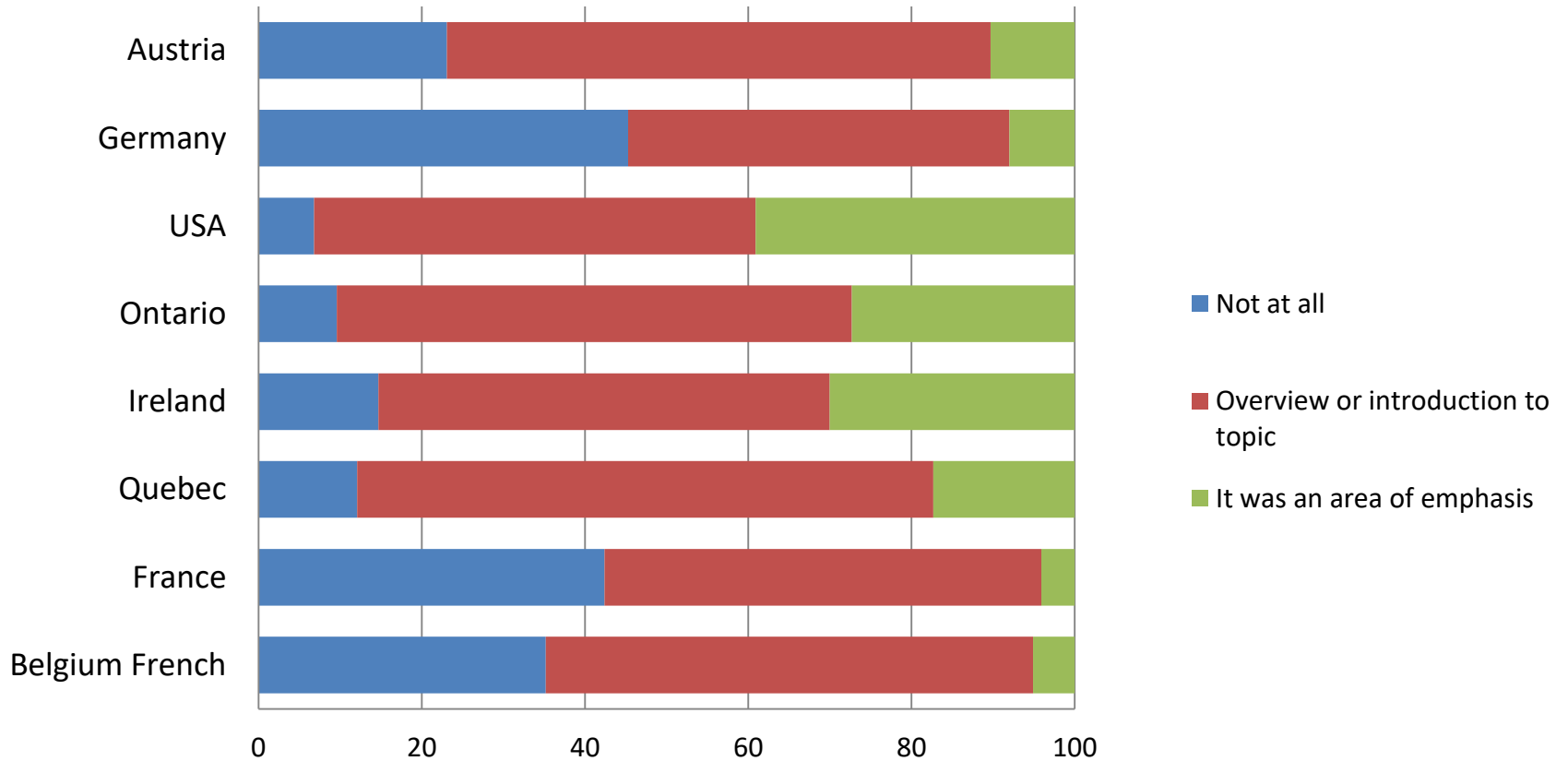


Remedial reading

- In most of the countries, teachers are not well-prepared to remedial reading; the situation is somewhat better in Austria and in the US.
- In Germany, only around 15% got a training in remedial reading and nearly 30% did not get any.
- The situation is worse in France and Belgium.

Preparation to teach reading

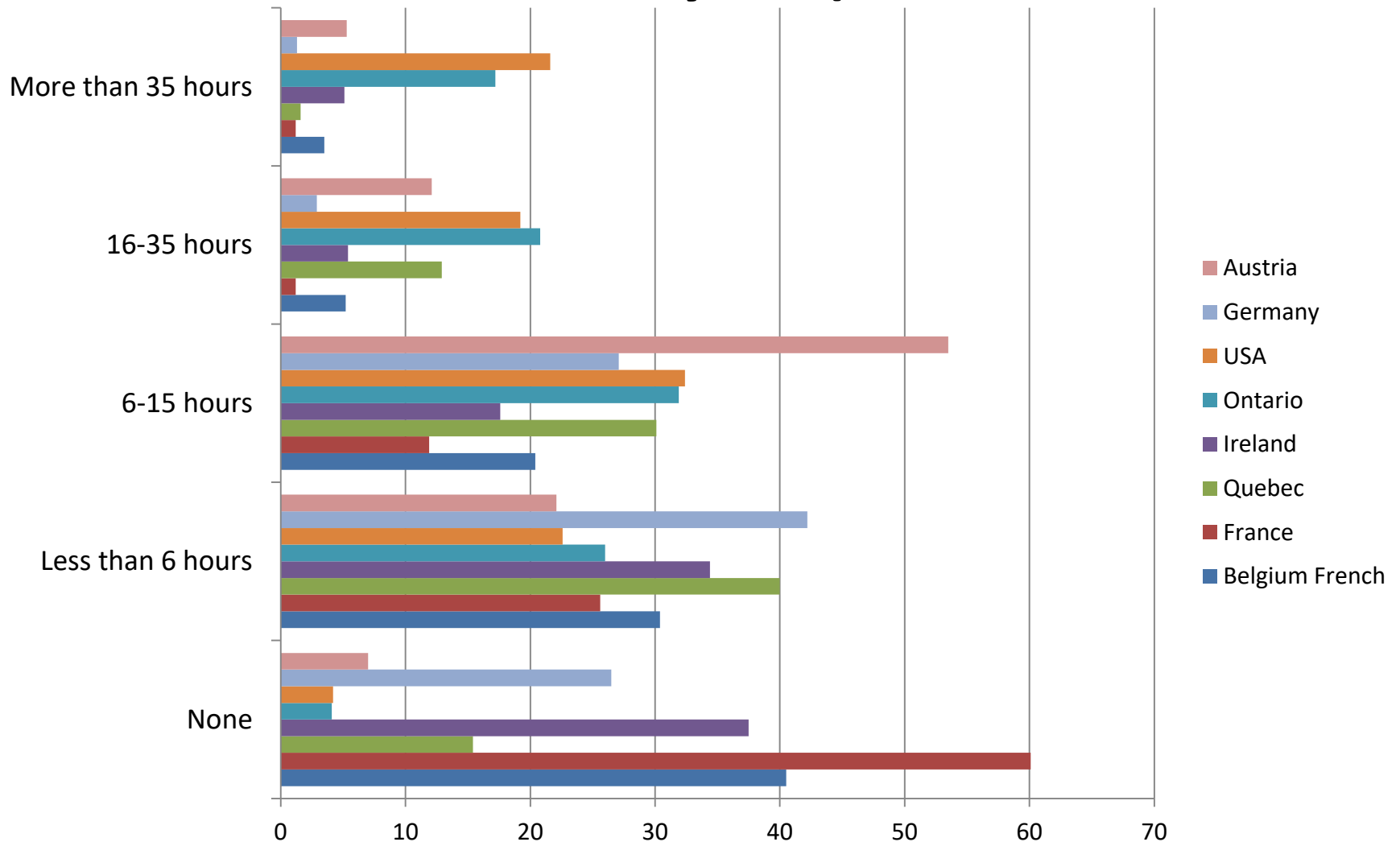
Assessment methods in reading



Assessment methods in reading

- Very limited proportion of teachers were trained in assessing reading in Austria, Germany, France and Belgium.

In service training dedicated to reading (past two years)



In-service training dedicated to reading

- No compensation between pre-service and in-service, on the contrary.
- Extensive in-service training in the US and in Ontario, quite a good situation in Austria and Québec.
- In Germany, limited number of hours.
- In France and Belgium, the situation is critical.

To sum up

What seems striking/specific in Germany?

- Less “*reading aloud*” (teacher);
- Limited use of fiction (short and long), but not compensated by more use of non-fiction;
- Less time allocated to pupils to “*read books of their own choice*”;
- Limited use of quizz/tests and no writing about what pupils have read; most of the activities seem oral;
- “*Decoding*” is more often taught than in French-speaking, but less than in English-speaking countries;
- “*Compare with own experience*” and “*talk with each other*” are as frequent as in English-speaking countries (culture/religion?).
- A limited % of the test language instruction (around 25%) goes to reading.

To sum up

What is striking/specific in Germany?

- Teachers are alone, no support from reading specialists;
- The ratio pupils needing and getting remedial reading is low;
- During their initial training, teachers are not well-trained for reading instruction;
- In-service training is rather limited.

Within-country correlations

All variables have been correlated with PV1 in reading.
The vast majority of correlations are close to zero.

Country-level correlations

The country average of all variables has been correlated with the average of PV1 in reading.

Some interesting patterns were observed.

Reading material

- Countries in which non-fiction books and articles are more often used performed better in reading.

Teaching reading strategies

- Countries in which decoding of words is more often taught performed better in reading.

Teaching reading strategies

- Countries in which the following strategies are more often implemented performed better in reading:
 - Scan and skim texts
 - Locate information
 - Identify the main idea
 - Explain your understanding
 - Compare what you have read with experience
 - Compare what you have read with other reading
 - Making predictions
 - Making generalization and inferences.

Allocated time of language instruction

- Countries in which teachers devote a more substantial proportion of test language instruction time to reading and to writing performed better.
- On the contrary, countries in which teachers devote a more substantial proportion of test language instruction time to spelling and grammar performed less well.

Reading assessment

- Countries in which the following types of assessment are more often used performed better in reading:
 - Write after reading
 - Oral questions or orally summarize your reading
 - Talk with each other.
- There was a negative (but non-significant) correlation between frequency of quizzes and tests and reading achievement.

Support for struggling readers

- No significant correlation

Pre-service training

- Countries in which teachers got a more substantial pre-service training in pedagogy/teaching of reading and in methods of assessment in reading performed better.
- No correlation with number of hours spent in in-service training or professional development.

CONCLUSIONS AND LIMITATIONS

Conclusions

- A limited number of competencies, skills, practices, strategies are commonly used/taught in all education systems. Typically they are the least challenging or more traditional ones, **no link with explicit teaching of reading strategies**: read silently, read aloud, taking quizzes, ask oral questions, locate information, use of short texts...
- For more demanding or challenging activities, some clear-cut differences were observed between the different education systems compared, showing a substantial variation in reading literacy teaching practices: **the teaching practices closer to explicit instruction of reading strategies are more wide-spread in English-speaking education systems than in the German or French-speaking ones.**

Conclusions

- The proportion of language instruction dedicated to reading is higher in the English-speaking countries and in Québec than in Austria, Germany, France and Belgium.
- The effort to help struggling readers is stronger in all countries than in Germany and Belgium (struggling readers left behind).
- Teachers are less well prepared to teach reading (pedagogy, remedial, methods of assessment) in Germany, France, Québec and Belgium.
- In addition, in-service training is less frequent in the same countries.

Conclusions

- All in all, these differences in teaching practices, resources, qualifications and conditions are not random, patterns of differences were observed (linguistic, culture or traditions).
- If all these differences are summed up, it makes a huge difference for pupils in terms of opportunity to learn reading comprehension, allocated time and resources, exposure to more challenging texts and even teachers' qualifications.

Conclusions

- These patterns of practices can be related to what is known about effective teaching practices.
- In the best performing English-speaking countries, pupils have obviously more opportunity-to-learn or exposure
 - a) to more demanding and diverse texts;
 - b) teaching practices aimed at developing deep understanding (such as drawing inferences, compare with other readings or relate reading to their experience, make predictions, learn to browse a text...).
- In comparison, in the education system scoring the lowest, pupils had really limited exposure to effective reading strategies and limited experience with demanding texts.

Conclusions

- At the country-level, positive correlations were observed between reading proficiency and teaching of reading strategies, use of non-fiction texts, use of writing.
- Negative correlations were observed with “traditional” activities such as taking quizzes or tests or devoting more time to spelling and grammar.

Limitations

- The approach is descriptive and correlational; we cannot claim any causal link between the teaching practices or conditions and performance because PIRLS data are cross-sectional.
- Descriptive data are sometimes disregarded but they matter a lot (if some conditions are fulfilled). They show how different educational contexts can be.
- Data are self-reported by teachers on Likert scales; possible bias and response-style, but the set of countries is culturally quite homogenous (Van de Vijver & Poortinga, 1997; Van de Vijver & He, 2014 ; Yang, Harkness, Chin, Villar, 2010).
- Getting accurate information about teaching practices through questionnaires is challenging.
- Within countries, correlations of teaching practices with reading achievement are low (lack of variation or covariance with other variables?)
- More than in any other subject matter, reading literacy draws on cumulative experience in school and out-of-school, so it is especially difficult to find strong links between the actual teacher practices in grade 4 and reading proficiency.
- Multilevel models should have been used and will be as soon as possible.