

What Relationship between Qualitative and Quantitative Approaches in the Process and Results of Research? Example: The Gary Project¹

Quelle relation entre les approches qualitative et quantitative dans le processus et les résultats de la recherche? L'exemple du projet Gary

Qual a relação entre as abordagens qualitativa e quantitativa no processo e nos resultados da pesquisa? O exemplo do projeto Gary

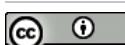
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The Gary research studied the evolution of pupils' literary reading skills and their teachers' practices over the course of compulsory schooling in four French-speaking countries. The research methodology was adapted according to the outcome of analyses of the collected data. This combined qualitative and quantitative approaches that shed light on the results in different ways. The research began with an exploratory qualitative phase, which aimed to establish analytical tools for processing substantial data, and led to a quantitative and statistical study which benefited, in turn, from a qualitative approach.

MOTS CLÉS : approche mixte, comparaison internationale, compétences de lecture, méthodologie, pratiques d'enseignement, progression curriculaire

La recherche Gary a étudié l'évolution des compétences des élèves en lecture d'un texte littéraire et des pratiques de leurs enseignants au fil de la scolarité obligatoire, dans quatre pays francophones. Elle a conçu sa méthodologie de recherche en fonction des possibilités que sa phase exploratoire a permis d'éclairer. Il en est résulté une articulation entre les approches qualitative et quantitative qui a permis d'étayer les résultats de différentes manières. En l'occurrence, la recherche est partie d'une phase exploratoire qualitative, qui visait à fonder des outils d'analyse en vue d'un traitement de données substantielles, pour déboucher sur une étude quantitative et statistique qui a pu, à son tour, être approfondie par une approche qualitative.

PALAVRAS-CHAVE: abordagem mista, comparação internacional, competências de leitura, metodologia, práticas de ensino, progressão curricular

A investigação de Gary estudou a evolução das competências dos alunos na leitura de um texto literário e das práticas dos seus professores ao longo da escolaridade obrigatória em quatro países francófonos. Esta autora concebeu a sua metodologia de investigação com base nas possibilidades que a fase exploratória permitiu esclarecer. Isso resultou numa articulação entre as abordagens qualitativa e quantitativa que fundamentou os resultados de diferentes maneiras. A investigação começou com uma fase exploratória qualitativa, que visava estabelecer ferramentas de análise para o tratamento de dados substanciais, levando a um estudo quantitativo e estatístico que, por sua vez, foi aprofundado por uma abordagem qualitativa.

Introduction

The Gary project, launched in 2015, tackled three levels of questions. Firstly, it investigated how pupils' skills in understanding, interpreting, and appreciating literary texts evolve between Levels 4, 7, and 10 of schooling (pupils aged 9, 12 and 15²). Secondly, the team aimed to describe how, and through which didactic choices, the pupils' teachers conducted group reading sessions of a literary text. Finally, the project attempted to identify whether relationships could be established between certain pupil performances and certain didactic choices made by their teachers.

The Gary researchers opted for a mixed-methods approach, currently widely used in French didactics (Falardeau & De Croix, 2023) and originating from English-language work in other disciplines (Creswell, 2003; Johnson et al., 2007; Teddlie & Tashakkori, 2009). To explain how this approach was implemented, this article shows how qualitative and quantitative approaches were articulated in the research process and results.

We begin by describing the general context of the project and clarifying the questions developed within the framework of this article. Secondly, we show how qualitative and quantitative approaches were used successively with complemented benefits, leading to robust results at the end of the project.

Background

The Gary project is based on a comparative approach at two levels, involving four French-speaking countries or territories (Belgium, France, Quebec, and Switzerland), and three age levels.

To contrast the two variables of country and age level, the research protocol was based on reading a single text, which served as both a constant and "reactive" (designed to elicit practices), namely Romain Gary's short

2. Note: Level 4 corresponds in all four countries to the 4th year of primary school (called CM1 in France), Level 7 corresponds to the 1st in secondary school in Belgium, Switzerland, and Quebec, and to 5th in France, and Level 10 corresponds to 4th in secondary school in Belgium and Quebec, but to the 1st year of secondary 2 in Switzerland and to 2nd in France. The age brackets refer to ordinary school progress and not necessarily to the actual age of all the students in our sample.

story *J'ai soif d'innocence* (1962), a text inspired by the French Resistance during WW2. This literary text was chosen because it is readable to some extent at different ages, and it is open to different interpretations and appreciations. The narrator and main character of the story is weary of the materialism of Western life and arrives in Polynesia on a quest for innocence and simplicity. However, when he discovers paintings, he believes to be by Gauguin, he succumbs to greed. He sets a trap for a Polynesian friend but is ultimately swindled when the tables are turned.

Methodology

The first set of data concerns skills mobilized by the pupils during an initial session of around 50 minutes, during which they read the short story individually then responded in writing to three questions: (a) Present the story in detail, as if you were talking to someone who doesn't know it. (b) Did you like the text? Why? (c) What do you think the author is trying to tell us? These questions lead the pupils to express their understanding of the plot, then their appreciation, then their interpretation, i.e. the lesson proposed by the author. To process their answers, the team examined the extent to which they had captured:

- 17 expected comprehension items,
- 5 mobilizable judgment criteria, distinguishing between valid assessments (defensible in light of the text's elements) and invalid assessments (based on a fanciful or erroneous understanding³),
- 10 possible interpretations, 6 of which the team deemed valid (again in light of the text's elements).

These three codings were used to give each pupil a score in comprehension, appreciation, and interpretation to compare average scores between school levels and between national contexts.

The second set of data concerns the teachers who lead a second session with the same short story for the same duration. They chose their own tools including work format, types of activities, and didactic scenarios.

3. Note: A valid appreciation is supported by objective data in the text, not being positive or using arguments to support a point of view. For example, saying you liked the text because it celebrates friendship is an invalid assessment.

This session was filmed and transcribed, then subjected to five successive reading grids, which we used to analyze the focus given to the following during the lesson:

- stimulation of *reading operations* relating to comprehension, interpretation, and appreciation, and the teacher's suggestion of cultural contributions;
- *cross-curricular work patterns* (lecture, dialogue, group work, individual work, methodological fine-tuning);
- the teachers' *didactic gestures* (identification of the object, summoning of memory, regulation-evaluation, institutionalization);
- the 12 *genres of school activity* (or GAS) linked to reading identified by Aeby Daghé (2014) (reading aloud, explanation of text, networking, interpretative debate, etc.);
- the 15 genres of *school activity* (or GAS) linked to reading identified by Aeby Daghé (2014) (reading aloud, explanation of text, networking, interpretative debate, etc.);
- the 15 *aspects of the text* (title, narrative outline, characters, narrator, punchline, values, etc.) highlighted in the lessons.⁴

Using the five grids, five codings were carried out for each session, with interjudge validation, making it possible to calculate the percentage of time reserved for the various categories questioned during the session. These data were then processed and analyzed statistically, with a view to identifying trends, convergences, and specificities amongst the teachers' choices with the pupils' results, then establishing links between them. Stata software (StataCorp LLC, USA) was used for processing (merging the two data sets, calculating scores) and statistical analysis (studying distributions, calculating indicators, carrying out tests).

In this process, the team analyzed the questionnaires completed by the pupils and the verbatims of the sessions conducted by their teachers. These two sets of data are presented in detail in the table below.

4. The team chose these concepts because they are equally applicable in the various national contexts of the survey. Their definitions, detailed in our other work, are too long to include here.

Table 1
Summary of data collected

	Level 4 (age 9)	Level 7 (age 12)	Level 10 (age 15)	Total
Belgium	174 pupils 8 sessions	176 pupils 8 sessions	184 pupils 8 sessions	534 pupils 24 sessions
France	189 pupils 8 sessions	196 pupils 8 sessions	231 pupils 8 sessions	616 pupils 24 sessions
Quebec*	/	197 pupils 2 sessions	156 pupils 3 sessions	353 pupils 5 sessions
Switzerland	/	135 pupils 8 sessions	149 pupils 8 sessions	284 pupils 16 sessions
Total	363 pupils 16 sessions	704 pupils 26 sessions	720 pupils 27 sessions	1,797 pupils 69 sessions

* As data collection in Quebec was organized mainly during the COVID-19 pandemic, the team was unable to access classrooms as planned, resulting in a singularly smaller number of observed sessions than in other countries.

From a methodological point of view, the research has the following three specific features:

- The method used to create the five data processing grids (mentioned above) was developed over the course of the research, rather than through a design at the outset.
- The research went through several phases, each corresponding to a specific database (pupil/teacher/school level/country). The final methodological choices thus reflect a balance between, on the one hand, the concern to obtain a sufficient density of data for statistical analysis and, on the other hand, the requirements linked to the feasibility of data collection (mobilization of teachers, pupils and researchers) and coding (volume of corpora, definition of coding grain and number of categories to be coded).
- At every stage, and right through to the last analyses, the team was keen to develop a complementary quantitative analysis to identify the general trends emerging from the data, and a qualitative analysis, or at least a qualitative consideration, of both the most significant elements from the pupils' productions and the verbatims of the class sessions.

The team agrees with Lacelle et al. (2017) that:

when the context allows, the combination of qualitative and quantitative approaches offers the researcher a particularly rich and difficult-to-bypass opportunity to draw up a dense, even holistic, analytical portrait of the problematic situation he or she is tackling. [...] At the end of the day, and therefore of the methodological approach, we arrive at a more complex, nuanced, refined and complete vision of the problem under study (p. 154-155).

It is this repeated alternating between quantitative approaches (systematic coding of data, processing results using statistical tools) and qualitative approaches (preliminary exploratory study, inductive construction of analysis tools, exemplification using the verbal productions of the players, interpretation of the most salient results of the quantitative study) that defines the “mixed” method conceived by the team. The team proceeded in three phases, each corresponding to a different articulation between qualitative and quantitative approaches.

An initial qualitative phase, to establish and test the research hypotheses, enabled us to identify questions they raised and to formalize how the material would be constructed for their validation, and to develop the processing tools. These tools were then used for quantitative analysis. Finally, we returned to qualitative analysis to refine certain results obtained from the quantitative processing. As a result, the three phases of the study gradually produced robust results. This oscillating movement will be described with the results generated.

The three phases of the study

Phase 1 <i>Qualitative</i>	→	Phase 2 <i>Quantitative</i>	→	Phase 3 <i>Qualitative</i>
Exploratory surveys, formulation of research questions, formalization of the material used to answer them, and development of processing tools		Statistical processing of pupil data and data on teaching practices		Analysis of the results of quantitative processing: links between reading operations within pupil data, differences between the four countries

From qualitative to quantitative: the gradual construction of research questions, methodologies and tools

The first stage consisted of establishing the theoretical and methodological framework, defining the problematic, then formulating the research questions for data collection, and establishing their coherence. This stage was based on an exploratory study and an initial qualitative approach which enabled us to fine-tune the data processing method.

The role of exploratory research: a qualitative approach that sets the framework for research

Exploratory research (Brunel & Dufays, 2015) involved three classes of pupils younger than those in the present study (aged 4 to 12) and focused on another text (Perrault's *Le Chat Botté*, 1697). It was used to test the research protocol of having pupils from different school levels read the same literary text, serving as a constant to authorize a comparative study. Through this first experiment, the team was also able to confirm the importance of focusing on three reading operations - comprehension, appreciation, and interpretation - by observing the skills linked to these operations in semi-directed interviews with pupils.

This initial research also enabled us to consider a number of adjustments to data collection. While the Chat Botté survey used only oral interviews, the Gary research was based on written answers to three open-ended questions. This choice was both more realistic and more relevant for a large-scale study. Furthermore, to optimize the comparison (Venturini & Amade-Escot; 2008), the team changed the age segment for data collection, choosing to begin at a school level where basic reading skills are supposed to be acquired, i.e. Level 4. We also paid close attention to teachers' practices. The major theoretical and methodological orientations of Gary's research were thus set.

An exploratory survey based on expert input

Once the project had been finalized and the first data collected, the protocol and initial work were submitted to three more experienced colleagues who had already conducted comparable research. To this point, we had focused on studying both pupils' skills and teaching practices. Following our colleagues' suggestion and with their help, we decided to analyze the data a third time to detect if there were links between pupils' skills and their teachers' practices.

The research question was thus broken down into three sub-questions:

- How do pupils' reading skills progress through the levels of compulsory schooling, from Level 4 to Level 10? (Data: pupil questionnaires)
- What are the teachers' practices at these same levels? (Data: film and transcripts of class sessions)
- How do teaching practices relate to the progression of pupil skills? (Cross-tabulation of the two data sets)

This development led to an important methodological consequence: addressing the third sub-question required additional analysis tools, hence we also included statistical methods of correlation research.

Building analysis tools for comparison

The first phase of the research concluded with the selection and stabilization of data processing tools. After testing an initial grid for processing the pupils' questionnaires, a coding tool was developed, comprising 32 criteria divided between the three operations studied, with five scores: comprehension, general appreciation, valid appreciation, general interpretation, and valid interpretation. This grid refers to and specifies the three reading operations presented above. For each of them, we established criteria relating to issues raised in Gary's story. The proposed criteria are the result of a concerted choice by the research team, after carrying out an *a priori* analysis (Mercier & Salin, 1988) of the text, confirmed and refined after an initial breakdown of the pupils' written responses.

For the teaching sessions, the team finally abandoned the initial chosen typology of qualitative analysis (Brunel & Dufays, 2017), which studied the dimensions of didactic action through the study of three geneses - topo genesis, chronogenesis, and mesogenesis (Schubauer-Leoni & Leutenegger, 2002) - as it seemed inadequate for the quantitative treatment envisaged. A quantifiable measuring instrument was then developed, based on the proportion of teaching time devoted to a particular aspect of the reading session.

Influenced by the multifocal approach favored by the Groupe de Recherche pour l'Analyse du Français Enseigné (GRAFE), the team aimed to describe the various dimensions of teacher activity through five prisms of analysis:

- The first distinguishes between the time the teacher devotes to the *three reading operations* that were the subject of the questionnaire sent to the pupils: comprehension, appreciation, and interpretation, to which the input of cultural references has been added.

Table 2
Coding grid for pupil's responses

	1	1	1	1	1	1
Number of valid interpretations						
Total number of interpretations used	1	1	1	1	1	1
Other	0	1	0	1	1	1
(Ambiguous) Importance of fulfilling dreams	0	0	0	0	0	0
(Contresens) Importance of having fun in life	0	0	0	0	0	0
(Contresens) Importance of a relationship based on friendship and sharing	0	0	0	0	0	0
Criticism of selfishness	0	0	0	0	0	0
Highlighting the relativity of desires	0	0	0	0	0	0
Criticism of dishonesty (we must not deceive others)	0	0	0	0	0	0
Criticism of materialism (you don't need money to be happy)	0	0	1	0	0	0
Don't be fooled by appearances	0	0	0	0	0	0
The quest for innocence collides with the thirst to possess, the tables are turned	1	0	0	0	0	0
Total number of criteria used	1	1	3	1	0	1
Other (appreciative delirium, ambiguous or unclassifiable appreciation)	0	0	0	0	1	0
Aesthetics (taste, emotion, narrative)	0	1	1	1	0	0
Ethics	1	0	1	0	0	1
Reference	0	0	1	0	0	1
Cognition (general interest in reading)	0	0	0	0	0	0
Valence of appreciation (1 or 0)	1	1	1	0	1	1
Total number of items included	7	5	10	0	2	3
Final disappointment	0	1	1	0	0	0
Stopover in Tahiti, meet a hotelier	0	1	1	0	0	0
Escale à Tahiti, rencontre d'un hôtelier	0	0	0	0	0	0
Back to France	0	1	1	0	0	0
"Gift" (money) in exchange	0	0	0	1	0	0
Receiving new paintworks	0	0	0	0	0	0
Alleged origin of the paintings (Taratonga's grandfather)	0	0	0	0	0	0
Desire to acquire other paintings	0	0	0	0	0	0
Interrupting the donation of canvases	0	0	0	0	0	0
Great value of the paintings	0	0	0	0	0	0
Paintings by Gauguin	1	1	1	0	0	0
Canvas-wrapped cakes	1	1	1	1	0	0
Relationship with Taratonga	1	1	1	0	1	0
Arrival on the island of Taratora	1	0	1	0	0	1
Arrival in Tahiti: disappointment	1	1	1	1	0	1
Initial quest for innocence	1	0	1	0	0	1
Male identity of the narrator	1	0	1	0	1	0
Student ID	E1	E2	E3	E4	E5	E6
Class identifier (country - school level - number)	F4-01	F4-01	F4-01	F4-01	F4-01	F4-01

Interpretation (question 3)

Appreciation (question 2)

Comprehension (question 1)

General informations

- The second, applicable to all school subjects, looks at the time teachers allocate to *cross-disciplinary patterns of session organization*, i.e., to lectures, methodological clarification (presentation of instructions, procedures), interactions, individual work, group work and possible interludes (Bernié & Goigoux, 2005; Dufays, 2005; Marlair & Dufays, 2009, 2011).
- The third, borrowed from work by Schneuwly et al. (2005), is that of the teacher's *didactic gestures*. It allows us to identify the time devoted to situating the object being taught to presenting it through didactic devices, to regulating and evaluating pupil interventions and, finally, to institutionalizing knowledge.
- The fourth concerns the place given by the teacher to different *genres of scholastic activity* (GAS) specific to reading-literature lessons, as distinguished by Aeby Daghé (2007, 2014), namely reading aloud, text explanation, networking, or interpretive debate.
- The fifth dimension looks at the focus the teacher gives in the session for different aspects of the text, either the moments of the narrative that they favor (initial situation, punchline...) or the units of analysis they choose to dwell on (characters, values...).

Finally, 45 criteria representing different strata of teaching activity make up the treatment grids. As presentation of the complete grid would be unreadable in the format of this publication, a sample of the grid concerning teachers work on reading operations (dimension 1 of the multifocal approach) is presented below.

This first qualitative stage produced initial results, which served as hypotheses to be verified or points of attention to be developed for the rest of the data collection.

Quantitative and qualitative: two complementary approaches for establishing results

This section shows how the research results were constructed from the analysis of all the data, linking the quantitative and qualitative approaches. We present the analyses linked to the quantitative approach, then comment on some of the qualitative results, first for data related to pupils' skills, then data for teaching practices.

Table 3
Excerpt from coding grid for teaching practices

General information				Text reading operations				
Identifier	Registration date	Number of pupils	Session duration (in min)	Understanding	Interpretation	Appreciation	Cultural input	Other
B4-01	may-15	22	45	55.5%	4.4%	2.2%	4.4%	33.3%
B4-02	Apr-18	23	49	50.9%	10%	1.8%	17.2%	20%
B4-03	June-18	21	30	80%	3%	0.5%	7.5%	9%
B4-04	sept-18	26	40	50.5%	9%	0%	40%	0.5%
B4-05	march-19	22	28	32.2%	2.7%	0%	0.9%	64.2%
B4-06	march-19	22	46	18.8%	19.9%	0.3%	1%	60%
B4-07	Feb-20	23	40	66%	10%	2%	0%	22%
B4-08	march-21	23	44	60%	4%	3%	2.5%	30.5%

Analysis of pupils' skills

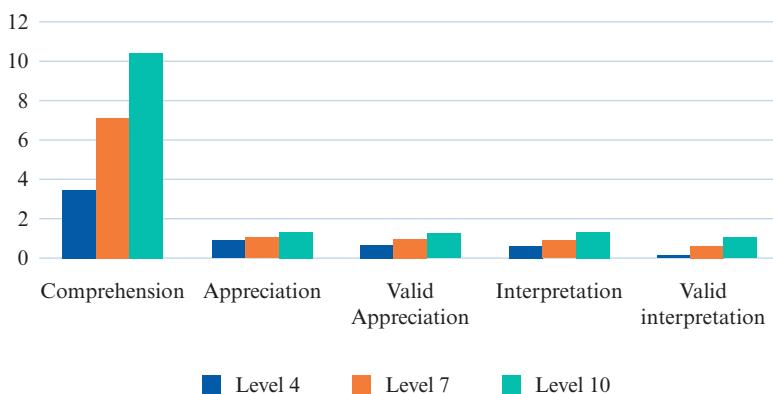
The quantitative approach gave us an initial grasp of the general evolution of reading skills across the grades, before detailing the situation specific to each grade. General trends were identified using the quantitative approach.

Graph 1 summarizes the scores obtained by the pupils:

- for comprehension, the number of elements (out of a total of 17) that the pupils named in their summaries;
- for appreciation, the number of assessments made (valid or invalid, among four categories);
- for interpretation, the number of interpretations (valid or invalid) proposed by the pupils.

To facilitate comparison, the average scores obtained for each grade level are associated in each column.

Figure 1
Pupils' scores in the four operations over the levels, all countries combined



Unsurprisingly, all operations progress quite markedly through the levels. Valid appreciation scores double between Level 4 and Level 10, while comprehension and valid interpretation scores triple between these two levels.⁵

5. Note: The optical illusion potentially induced by this schema: Comprehension scores appear much higher due to the fact that they are measured on a scale of 17 possible items, whereas, for appreciation and interpretation, the best results, logically enough, do not exceed three items (i.e. three different appreciations or interpretations).

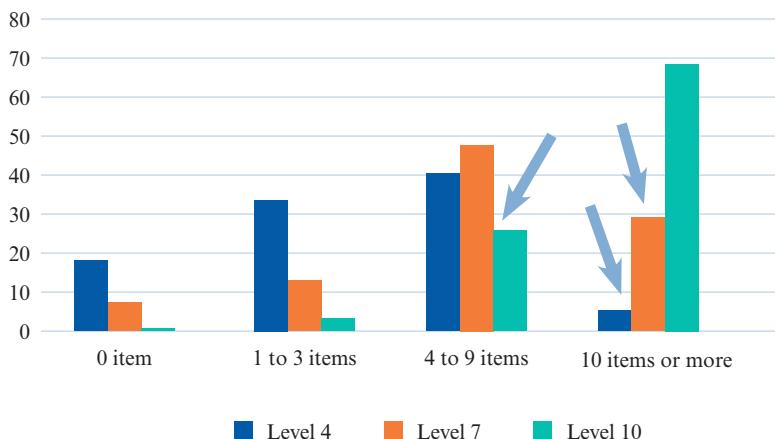
Comprehension skills from Level 4 to Level 10

Quantitative findings

The results presented in Figure 2 show the number of items (17) identified by the pupils to restore the diegesis (the story being told). We observe that almost 20% of Level 4 pupils (in blue) are unable to identify any of the 17 elements, and that this proportion declines progressively with each level, to less than 10% at Level 7 (in orange) to virtually zero at Level 10 (in grey).

Figure 2

Pupils' comprehension scores by level (all countries combined) as a function of the number of items in the short story named in the summaries



The evolution of comprehension is evident in this diagram, which shows that the number of items identified⁶ increases with each level. However, it is observed that 25% of 15-year-olds (Level 10) perform below 30% of 12-year-olds (Level 7), and 6% of 9-year-olds (Level 4)!

6. Reminder: The first task asked students to summarize the text (“Present this story in detail, as if you were talking to someone who doesn’t know it”). To assess their success, the team noted how many of the 17 story items they had selected as relevant were mentioned by the students.

Qualitative comments

To complement the above statistical analysis, the team conducted qualitative analysis on the pupils' summaries, examining the fate they reserved for the various items in Gary's short story. This qualitative analysis showed the importance, at all three levels, of two items that weave their way through Gary's diegesis: "the relationship between the protagonist and Taratonga" and "the cakes wrapped in canvas". The first of these two items is a reminder that the "narrative-character system" (Aeby Daghé & Sales Cordeiro, 2020) is indeed an important key to understanding the narrative. The second item, also mentioned with a high percentage at all three levels, shows the importance of identifying the action trigger in the comprehension process. In this respect, it should be remembered that the narrative outline is a widely used tool in literature teaching practices (Baroni, 2020; Hébert, 2019).

Unsurprisingly, the most frequent complete summaries were written by Level 10 pupils. Their summaries are the closest reflections of the thoughts or perceptions that the pupils attribute to the characters themselves, shown in bold by the following extract from a Belgian pupil's summary:

"He received 3 over the next 8 days but **was a little worried** because the cakes were now coming unwrapped. [...] he accepted directly but **felt obliged** to offer him something in return [...] The man **shocked by what he had just learned** retired to his room, **alone with his sadness.**" (B10-01-8)

The tendency manifests itself in lexical choices, both by distancing the characters' features and by delegating responsibility for a thought to a character. This decentralization is important as it reflects the pupils' position as a subject capable of distinguishing between what belongs to themselves and what belongs to the story's characters.

Appreciative skills from Level 4 to Level 10

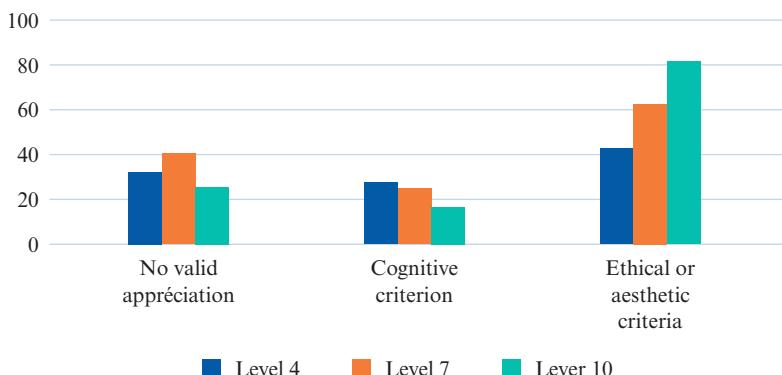
Quantitative findings

Figure 3 shows that between 25% and 40% of pupils, regardless of age, gave no assessment or an invalid assessment⁷. In this respect, there was no significant difference between Levels 4 and 7. Furthermore, the majority of pupils, including Level 10, only mobilized one of the four criteria (cognitive, referential, ethical or aesthetic).

7. As mentioned above, judgments considered invalid were those based on a fanciful or erroneous understanding, for example when a student said they enjoyed the text because it extols the value of friendship.

The criteria for appreciation, i.e. the cognitive criterion (“I like the text because I found it clear”, or on the contrary “I don’t like it because I didn’t understand it”) decreases over the levels, while the aesthetic and ethical criteria increase (“I like the text because the story is well told or I like its message”).

Figure 3
Changes in the assessment criteria used by pupils at different levels



Difficulties in appreciation are particularly marked at Level 4, where the level of performance is very low; where the gaps between the strongest and weakest classes are small; and where there is a significant mobilization of the cognitive criterion (which seems logical considering it is difficult for a pupil to appreciate a text they are unable to understand).

Qualitative comments

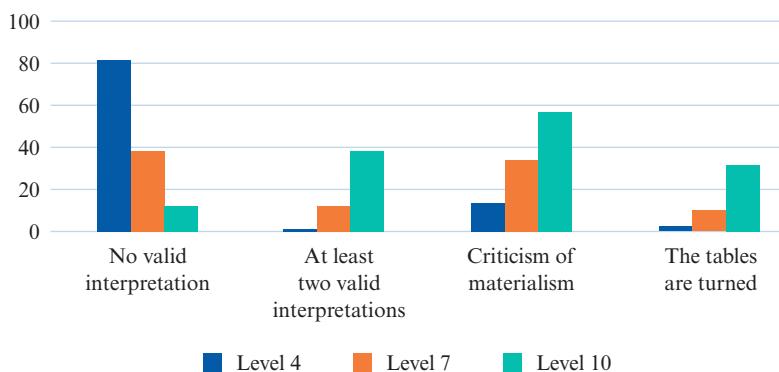
The qualitative study of verbatims was enlightening for refining the initial analyses. It showed that all three levels suffered from certain ignorance of the categories and words for expressing value judgments. It also revealed a link between the least substantiated appreciations and a lack of appreciation for the text: the less a pupil likes a text, the less they are able to express a judgment. In response to Statement 2 of the questionnaire “Did you like this text? Why?”, pupils answered “No”, for example “because there’s no action and it’s complicated” (B4-02) or “because I understood almost nothing. And the text was weird” (B7-04).

Interpretative skills from Level 4 to Level 10

Quantitative findings

For interpretative skills, Level 4 pupils' difficulties were echoed with 80% of them either failing to answer the third question or proposing an erroneous interpretation (see Figure 4). Few pupils formulated two (valid) interpretations: none at Level 4, 10% at Level 7, and 38% at Level 10. The item designating the most appropriate valid interpretation of the text, that of "the tables are turned", was inaccessible at Level 4 (1%), difficult at Level 7 (10%), and still problematic at Level 10 (30%).

Figure 4
Changes in the types of interpretations used by pupils at different levels



Qualitative comments

To complement the above analysis with a qualitative examination, the team analyzed the interpretative difficulties emerging from the pupils' responses (Dufays et al. 2020). When interpreting, the pupils appear to have three key difficulties, particularly at Level 4:

- identifying secondary meanings, intentions, and lessons;
- understanding abstract ideas;
- mobilizing knowledge needed to "give meaning to meaning".

Paremiological statements (popular truth with strong doxic value) were often used as fixed interpretative resources: “You have to give money to the poor” (F4-03)⁸ or “Money is bad” (CH7-01). Other interpretations proposed shed no light on the issues raised by the story: “take a vacation and share with others” (B7-05) or “true friendship is worth more than anything else in the world, and you have to realize how lucky you are” (CH10-07).

On the contrary, interpretation can lead to personal reflection (Capt et al., 2018). This is particularly the case when the pupil expresses their own opinion: “The author is trying to tell us that even in very uncivilized places, people are still interested in money, and that's a shame. In my opinion, the author is of the opinion of the main character he has created” (F7-01). And this is also the case when the pupil mobilizes more than one interpretation: “From the inhabitants of a remote spot in the Pacific to the businessmen of the great skyscrapers of American capitals, no one is indifferent to money. Man's nature always catches up with him. Total selflessness cannot be maintained in the hearts of men” (B10-07).

Analysis of teaching practices

After pupils' skills, the analysis focused on their teachers' practices, based on the five dimensions already mentioned: (a) teaching reading operations, (b) transversal pedagogical schemes, (c) didactic gestures, (d) genres of school activities, and (e) aspects of the text taught.

Teaching reading operations

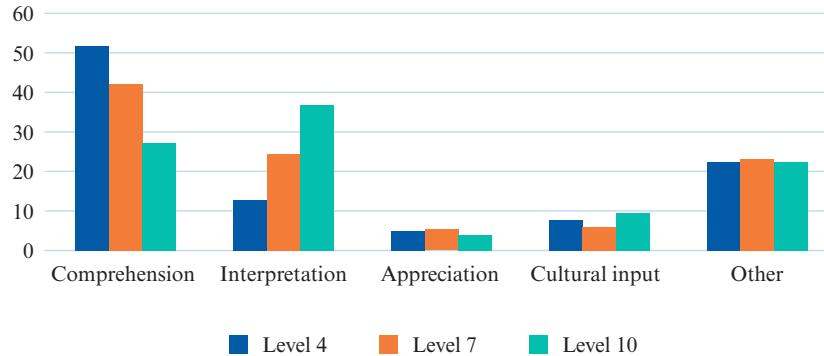
The first dimension concerns focus by teachers on the three reading operations studied in the previous section, often the subject of specific attention during sessions, namely comprehension, interpretation, and appreciation, with added cultural input. For this and the following dimensions, statistical results were established before the qualitative analysis of verbatims from the sessions.

Quantitative analysis

The diagram below clearly shows a gradual decline in the amount of work focusing on understanding the story, and an increase in the focus on interpretation.

8. The coding used consists of the initials of the country (F for France here), the level of education (4 here) and the number (one of eight) assigned to the class (3 here).

Figure 5
Changes in teaching practices for reading operations at different levels



In addition to being in line with program recommendations, this trend has already been documented by other studies (Louichon, 2020; Ronveaux & Schneuwly, 2018). In contrast, work on appreciation is homogeneously weak, which also confirms several previous analyses (Brunel et al., 2018; Gabathuler, 2016). This is not surprising given the recent addition of this operation, much less established in the history of reading teaching practices.

The amount of time devoted to cultural input is lowest in Level 7. Focus on this aspect was greater at Level 4, using contextual elements to situate and explain, and at Level 10, where these contributions were essentially literary and notional with for example the notion of irony, Robinsonade, and the Paradise Lost theme.

Finally, it is striking to note that over 20% of session time across all levels was devoted to activities other than reading operations. Other activities mainly included digressions suggested by the text, instructions for writing or speaking tasks, and breaks for classroom management.

Qualitative comments

To complement the above results with a qualitative perspective, we analyzed how teachers encouraged and combined the various reading operations. From a didactic point of view, teaching appreciation stems from the teacher's desire to inspire a reaction in their pupils (personal involvement), mostly used to launch the session (contrary to findings by Falardeau and

Pelletier, 2015, p. 88⁹). Interestingly, appreciation is almost always linked to comprehension or interpretation activities. For example, when a teacher asks “What did you think of the title?”, pupils were mobilized to both consider whether they liked the title and to try to interpret it. As a result, it seems that working on appreciation alone is insufficient, and hardly ever used isolation as a reading operation in teaching practices (Brunel et al., 2018).

Cross-disciplinary pedagogical schemes

We also observed time spent by teachers on the various cross-disciplinary pedagogical schemes used to organize lessons: the lecture given by the teacher, dialogue, methodological adjustment, group work, and individual work, plus breaks.

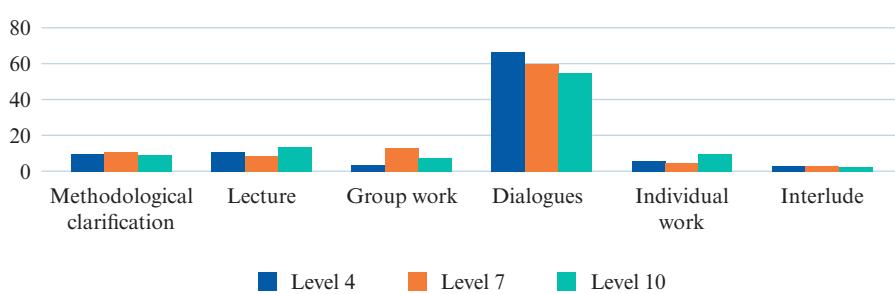
Quantitative analysis

The graph below shows that three main trends emerge from the quantitative processing of the results observed of these patterns.

Firstly, dialog is the dominant activity. Furthermore, there are trends at each level, from greater dominance of dialog at Level 4, greater use of group work at Level 7, and more individual work at Level 10. A certain logic emerges here, moving from the more collective to the more individual. Finally, the relative stability of methodological clarification (10%, 11%, and 10% of total session time) also indicates that teachers consider the time for explaining instructions and procedures is important, for all levels and degrees of autonomy granted.

Figure 6

The evolution of cross-disciplinary schemas mobilized in sessions across levels



9. Indeed, the authors analyze on the contrary that “understanding constructed with the accompaniment of the interviewer becomes a prerequisite for appreciation of the text” (2015, p. 88).

Qualitative comments

Three qualitative observations are possible regarding the time and focus teachers attribute to transversal patterns (Dufays, 2005). Firstly, an analysis of the verbatims shows that teachers frequently used methodological clarification at the very start of a session (the need to establish communication with pupils). Secondly, dialogue is essentially used to encourage the construction of knowledge. Finally, the lecture given by the teacher, introduced as a complement to dialogue, is used to either deliver elements of knowledge unknown to the pupils, or to introduce peripheral elements that will help them understand the context of the text.

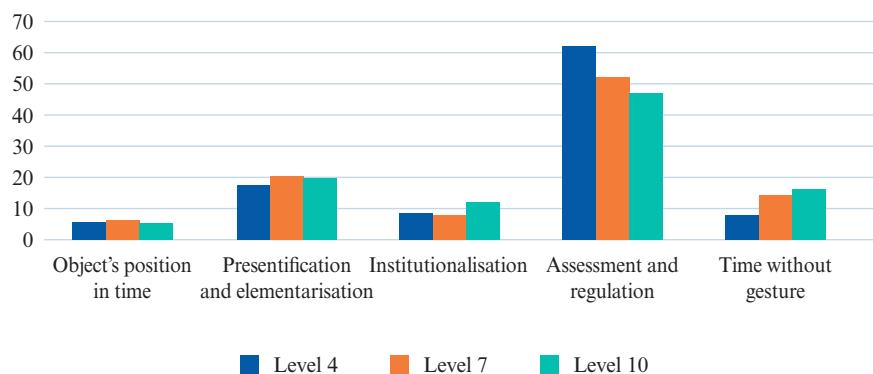
Fundamental didactic gestures

Our analysis then focused on time in the sessions devoted to the teacher's fundamental didactic gestures, namely situating the object taught in time, the presentification and elementarization of this object, its institutionalization and evaluation (especially formative), and its regulation.

Quantitative analysis

Generally speaking, as school levels progress, gestures for presentifying, elementarizing, and institutionalizing increased.

Figure 7
The evolution of didactic gestures across levels



On the contrary, evaluating and regulating gestures, by far the most widely mobilized, diminishes. The graph also shows that didactic memory (the setting of the object in time) is rarely used at the end of the session for assessing acquired knowledge and skills, confirming observations made by Goigoux (2016, p. 20). This can be explained in part by the constrained nature of the lessons observed (integration of the research device into ordinary practice and choice of the imposed text), which were also the first lessons using Gary's text.

Qualitative comments

A specific feature, observed in the qualitative analysis, of Level 4 lessons about the way teachers use gestures according to level¹⁰ drew our attention. In this case, the teacher's support was generally very sustained, and took the form of a linear follow-up, culminating in a collective restitution of the essential elements of the diegesis (the story told) to provide access to the meaning of the short story. The time devoted to the act of evaluation and regulation is important here, as pupils fail to identify the different parts of the text independently, confirming a finding from the PIRLS survey (Lafontaine, 2018, p. 54-60). Furthermore, teachers at this level tend to organize reading work according to a didactic "step-by-step" logic as recently shown by Louichon (2020, p. 321).

Genres of school activities

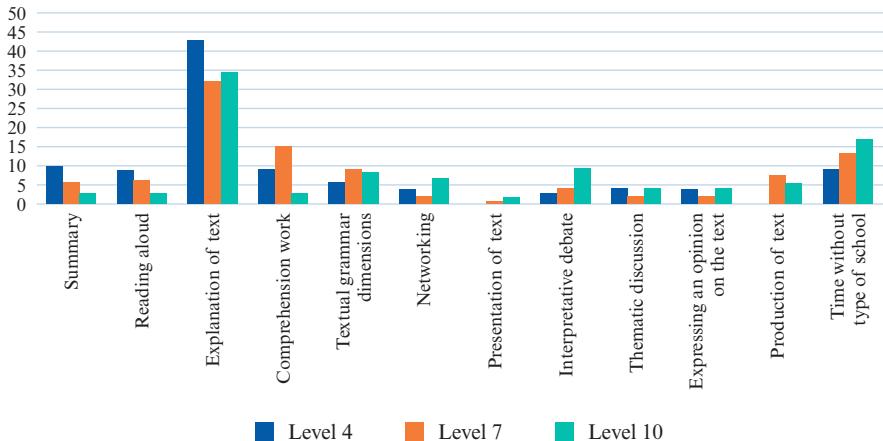
The fourth dimension concerns the 11 genres of school activity identified by Aeby Daghé (2014), namely summarizing, reading aloud, explaining text, working on comprehension, focusing on dimensions of textual grammar, networking, presenting text, interpretive debate, thematic discussion, expressing an opinion about text, and producing text.

Quantitative analysis

Figure 8 below shows the general trends that emerged from the quantitative analysis of the results.

10. For more on the qualitative study of the use of didactic gestures, see Dufays, Brunel, Capt. and Fontanieu, 2020.

Figure 8
The evolution of types of school activities across levels



The main quantitative trend that emerged for different genres of school activities across all levels concerns the priority given to text explanation, a practice that Aeby Daghé (2014) defines as “the traditional exercise in teaching literature”. Furthermore, reading aloud gradually decreased at each grade level studied, while conversely the share of interpretative debate increased. This crossover also seems to indicate a general progression between the groupings of activity genres proposed by Aeby Daghé (2014): appropriation (such as summarizing or reading aloud), characteristic of Level 4; commentary (work on comprehension, dimension of the object), mainly used in level 7; and discourse on the text or production (networking or interpretative debate), mainly used in Level 10.

Qualitative comments

We completed the analysis with a qualitative examination of how school-based activities are introduced into the sessions. Although omnipresent in the verbatims, explanation of text is rarely used from the outset. It is interesting to note that it is regularly used as a springboard for other types of activity and therefore does not appear as the climax or final stage of classroom analysis.

Furthermore, three types of school activity are commonly associated, regardless of the actual duration of mobilization: reading aloud, comprehension work, and explanation of text, as if a micro-scenario were reproduced throughout the sessions.

Finally, text production, which can consist of writing the previously read content to improve comprehension, as such falling under the heading of “reception writing” (Le Goff & Fourtanier, 2017), is mostly observed at Level 7, and is absent from Level 4 when it is most frequent for teachers to ask their pupils to write.

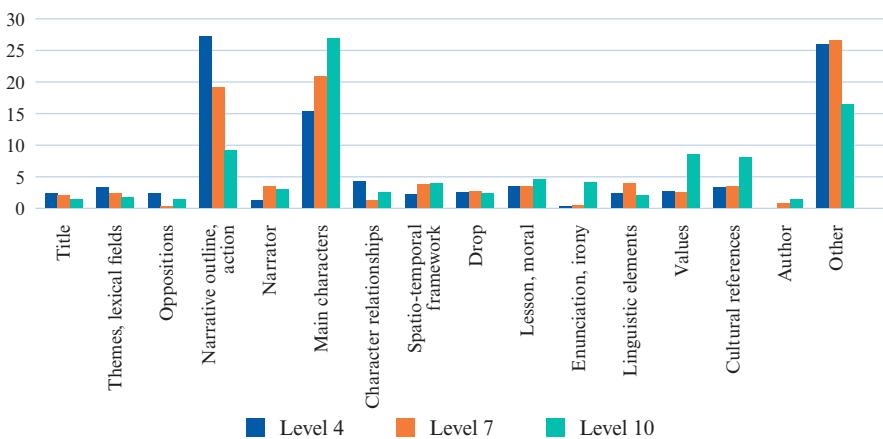
Treatment of text aspects

For the last dimension of analysis, we observed quantitative trends that emerge in the 16 aspects of the text selected, as shown in Graph 9.

Quantitative analysis

Quantitative analysis showed that two aspects were the most frequently used by teachers at all three school levels: narrative construction and the character lens. The first aspect declines as pupils progress, while the opposite is true of the second. Analysis of other aspects of the text also shows an increase in the amount of time devoted to values addressed in the text and to the mobilization of cultural references.

Figure 9
Changes in the aspects of text taught at different levels



Qualitative comments

By observing how teachers approach these two aspects of the text, a few clarifications can be made (Brunel et al. 2021). Firstly, with regard to narrative construction and, more specifically, the roles assigned to the narrative's opening passages (beginning and end). Support for the beginning serves primarily to recall the general framework of the plot, while support for the end serves to interpret and express appreciation, typically with regard to the moral of the story.

As pupils progress in their schooling, discussions about the characters are more frequent and in-depth, and interpretative work is more frequent, focusing on meanings that can be attributed to the characters' actions.

At Level 10, aspects of text are more frequently the subject of progressive formatting of the literary text-reading session, typical of established school knowledge (morals, values, cultural references, etc.). As schooling progresses, the text is increasingly used for linear narrative comprehension and increasingly seen as an opportunity to enrich pupils' general and theoretical culture.

New quantitative results revealed by statistical analysis thanks to in-depth qualitative analysis

The above results already demonstrate how productive it can be to combine quantitative and qualitative approaches. but we go one step further. Indeed, quantitative data analysis enabled us to establish three types of links or correlations¹¹ between:

- pupils' scores in the three operations of comprehension, interpretation, and appreciation;
- the different dimensions of teaching practices;
- the results of the “pupil” and “teaching” parts of the study.

These results, in turn, justify new interpretations and a fresh qualitative look.

11. Depending on the characteristics of the variable distributions within the student data, then within the class data, and finally within the student-class data, the team either established comparisons of the means of one variable between the first and last quartiles of another variable, or studied the coefficients of linear (Pearson) and/or rank (Spearman) correlations between two variables.

Links between pupils' scores in the three operations

To clarify the links between pupils' scores in the three operations tested by the questionnaire, we compared the average appreciation and interpretation scores of the pupils with the highest comprehension scores (last quartile) and those with the lowest scores (first quartile). This comparison revealed two significant trends.

The first concerns the links between comprehension and appreciation. At all three levels, referential, ethical, and aesthetic appreciation are clearly less prevalent in pupils with the lowest comprehension levels (Level 4: 0.73; Level 7: 1.07; and Level 10: 1.20) than among the strongest pupils (0.97; 1.21; 1.50). This shows that the quality of comprehension and appreciation are interdependent when the categories of pupils with low and high comprehension levels are contrasted.

The second trend showed links between comprehension and interpretation. At all three levels, interpretations based on the "critique of materialism" and, even more so, those favoring the "tables are turned" theme are less present among pupils with weak comprehension skills (0.04; 0.42; 0.96) than among pupils with strong comprehension skills (0.44; 1.06; 1.46).

These results suggest that, whatever the grade level, pupils with poor comprehension skills are also weaker at interpreting and appreciating on average. However, good comprehension is not enough to appreciate and interpret a text. In other words, while strong comprehension appears to be the necessary condition for pertinent appreciation and interpretation, it is no guarantee. Pupils with strong comprehension skills need - like other pupils - practice in interpretation and appreciation to apply them effectively.

Links between different dimensions of teaching practices

Correlations also emerged between different dimensions of teaching practices. Three clear correlations emerged between reading operations and cross-curricular pedagogical patterns in Level 4 sessions: a negative correlation (-0.54) between comprehension instruction and the lecture; a positive correlation (+0.63) between cultural inputs and the dialogical lesson; and a negative correlation (-0.56) between cultural inputs and methodological fine-tuning. In other words, long speeches by the teacher were not productive for teaching comprehension, while mobilizing cultural input was positive for classroom interaction, but not compatible with long periods spent presenting instructions or methodology.

Two clear correlations also emerged between reading operations and didactic gestures for Level 4: a positive correlation (+0.74) between cultural input and evaluation-regulation, and a negative correlation (-0.66) between cultural input and presentification. Moreover, this result seems to testify to the close relationship between certain transversal schemas and certain didactic gestures. For example, the gesture of evaluation-regulation is part of the dialogical lesson scheme, and the gesture of presentification can be mobilized within a temporal sequence dominated by the scheme of methodological fine-tuning, as demonstrated on numerous occasions in the verbatims.

In addition, eight correlations between reading operations and types of school activities emerged, mainly concerning the link between stimulating appreciation and expressing opinions at all three grade levels - which is to be expected, and between teaching comprehension and explaining text at Level 10.

Lastly, the correlations between reading operations and aspects of the text were the most abundant, with no fewer than 15 identified. They mainly concern the relationship between comprehension and narrative construction (Levels 4 and 10); between interpretation and relationships between characters (Levels 7 and 10); and between appreciation and the narrator (Levels 4 and 7). None of these links are unexpected and testify to consistency in the teachers' choices.

Correlations between “pupil” and “teaching” components

The links of internal interdependence shown between different practices by the same actors confirmed our intuition and were hardly revelatory. We were, however, very curious to analyze potential links between pupils' production and teachers' practices. Other research speaks of teachers' practices as a joint action with pupils' activity (Sensevy & Mercier, 2007), analyzes diversity in regulations proposed to the pupil by the teacher (Mottier-Lopez, 2012), or shows links between teachers' scaffolding gestures and postures and pupils' postures (Bucheton & Soulé, 2009). The present study focused on the relationships that might exist between the teaching practices analyzed and pupils' skills. The relationships discussed do not imply a unilateral causal relationship between the two sets of research data. Indeed, the connections made may reflect both the teachers' adaptation to their pupils' level (which they knew, given the data were collected several months after the start of the school year), and the

effect of teaching on pupils' responses (to what degree they were shaped by their teachers' practices). The relationships discussed here result from a statistical comparison of the two data sets using the Stata software mentioned previously.

General findings

We first analyzed possible relationships emerging from the comparison of the two sets of data, by country and by level. This first analysis proved relatively disappointing, as it failed to establish any regularity between pupil productions and teacher practices in Belgian and Swiss classrooms.

However, two correlations emerged for the French classes: at Levels 4 and 7, when teachers worked most frequently on interpretation and where pupils had the best comprehension performances. At Level 10, when teachers focused more on interpretation work (once again), pupils had higher appreciation performances. In other words, at all three grade levels, the amount of time French teachers devoted to interpretation correlates with their pupils' performance in two other operations: comprehension in the younger levels, and appreciation in the older levels. This seems to indicate that French teachers work on interpretation above all when working with pupils who understand (at Level 4) or appreciate the text (at Level 10). This phenomenon was specific to the French classes in the sample which could be at least partially explained by two contextual factors: a strong French tradition for text explanation and the priority given to subjectivity in the country's current curricula.

Remarkable relationships between teaching practices and pupils' scores

We took the investigation one step further and observed relationships between teaching practices and pupils' scores. Rather than analyzing their correlation, we examined the quartiles in comprehension of the lowest-highest-performing classes (first and last quartile of class averages), and then in interpretation. More specifically, we attempted to detect any relationships between the priority given to reading operations within the two components. This method proved particularly productive in two respects.

Firstly, analysis of priority given to teaching practices focusing on comprehension and interpretation in the most and least successful classes in comprehension, for all countries and levels combined, showed that comprehension is the subject of much more work in the classes of pupils with the weakest comprehension, and that, conversely, interpretation is

exercised much more by teachers in the classes of pupils with the best comprehension. This suggests that teachers adapt to their pupils' comprehension difficulties by focusing on their weakest process, and that they consider comprehension to be a condition for being able to work on interpretation.

Secondly, analysis of preferred teaching practices favoured in the weakest and strongest classes showed that, at all three levels, understanding is the priority for the weakest classes, with little time spent on interpretation and cultural input. Yet, these pupils need to work on these aspects more than the others.

These trends testify to a statist conception of reading which, although contested at the didactic level by many researchers (cf. Tauveron, 1999), continues to characterize many current teaching practices. Our study suggests that most teachers consider comprehension to be the most important reading operation – regardless of the level - and that it must be mastered before moving on to more complex operations, which are not often worked on in their own right. These observations cannot fail to challenge teacher trainers and prompt researchers to suggest ways of supporting teaching practices and training.

Conclusion

This study demonstrates how quantitative processing of data provided essential leverage throughout the research. Thanks to this approach, it was possible to identify salient elements; to study the distribution of pupil scores (levels, items, etc.); to analyze the proportions of session time allocated to different teaching practices; and to observe links between pupil scores and teaching time.

However, it is important to recognize that such an approach requires particular conditions. It required a very precise analysis grain. Coding time was considerable, and interjudge agreements required almost the same amount of time.

Qualitative commentary on the data proved essential to legitimize the avenues pursued; to pose research questions; and devise operational analytical grids, but also to complement certain quantitative results by recontextualizing them. Using this approach, we were able to illustrate a trend with examples, to support its analysis; to confirm the results of

other research in two ways (qualitative and quantitative); to put results into perspective by adding attention to the assembly of different aspects and the order of these aspects within lesson scenarios; and to interpret what could be attributed to the teacher and/or the pupil.

The mixed method was fully justified by these different essential functions and was the only way the team could meet their objectives. Indeed, thanks to the qualitative analyses carried out beforehand, the team was able to develop a complex, multifocal approach which, for exploratory purposes, enabled the extremely precise measurement of pupils' skills and a detailed understanding of teachers' practices. Finally, statistically cross-referencing skills and practices and qualitatively relating the results to their general context enabled us to pursue the explanatory aim of the research and propose possible explanations for the trends observed.

In conclusion, we highlight that the scope of this article limits the presentation of the major findings of a five-year research project. The full range of analyses are the subject of a book to be published by Presses Universitaires de Rennes in the coming months.

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REFERENCES

Aeby Daghé, S. (2007). Quels sont les genres d'activités scolaires effectives spécifiques à l'enseignement de la lecture/littérature? *Lire Candide et Le Cri de la Mouette*. In J.-L. Dufays (ed.), *Enseigner et apprendre la littérature aujourd'hui, pour quoi faire? Sens, utilité, évaluation* (pp. 393-404). Presses universitaires de Louvain.

Aeby Daghé, S. (2014). *Candide, La fée carabine et les autres. Vers un modèle didactique de la lecture littéraire*. Peter Lang.

Aeby Daghé, S., & Sales Cordeiro, G. (2020). Coconstruire le système récit-personnages : un genre d'activité scolaire oral au service de la compréhension d'albums de littérature de jeunesse. *Recherches*, 73, 173-191.

Baroni, R. (2020). Pour des concepts narratologiques intelligibles et utiles pour l'enseignement : schéma quinaire et focalisation en débat. *Transpositio*, 2. <https://www.transpositio.org/articles/view/pour-des-concepts-narratologiques-intelligibles-et-utiles-pour-l-enseignement-schema-quinaire-et-focalisation-en-debat>.

Bernié, J.-P., & Goigoux, R. (2005). Quels concepts pour quelle analyse de l'activité des enseignants de français? *La Lettre de l'AIRDF*, 36, 3-4.

Brunel, M., & Dufays, J.-L. (2015). Modes de lecture scolaires et extrascolaires, quelles spécificités? Une expérience et des hypothèses. *La Lettre de l'AIRDF*, 58, 15-20.

Brunel, M., & Dufays, J.-L. (2017). Comment des élèves de 9 à 15 ans lisent-ils un même texte littéraire et comment leurs enseignants le didactisent-ils? Une comparaison France-Belgique. In M. Brunel, J. Émery-Bruneau, J.-L., Dufays, O., Dezutter, & E. Falardeau (dir.), *L'enseignement et l'apprentissage de la lecture aux différents niveaux de la scolarité* (pp. 103-136). Presses universitaires de Namur (Diptyque). <https://hal.archives-ouvertes.fr/hal-01976169/document>.

Brunel, M., Dufays, J.-L., Barthélémy, M., & Fontanieu, V. (forthcoming). Compétences de lecture des élèves et pratiques enseignantes au fil de la scolarité en Belgique et en France : quelle progression, quelles spécificités? In B. Louichon (ed.), *Comparaison en didactique des littératures*. Presses universitaires de Rennes.

Brunel, M., Dufays, J.-L., Capt, V., Barthélémy, M. and Fontanieu, V. (2021). Lire une nouvelle en extraits avec des élèves de 9 à 15 ans: quels aspects du texte et quelles variations? *Repères*, 64, 53-73. <https://journals.openedition.org/reperes/4499>.

Brunel, M., Dufays, J.-L., Capt, V., Florey, S. and Émery-Bruneau, J. (2018). Le discours des élèves sur les valeurs du texte littéraire et leur exploitation didactique par les enseignants: quelles variations selon les classes d'âge et selon les pays? In Rouvière, N. (ed.). *Enseigner la littérature en questionnant les valeurs* (pp. 279-302). Peter Lang (ThéoCrit'). https://www.academia.edu/38284056/Le_discours_des_élèves_sur_les_valeurs_du_texte_littéraire_and_their_didactic_exploitation_by_teachers_what_variations_according_to_age_classes_and_countries.

Bucheton, D. and Soulé, Y. (2009). Les gestes professionnels et le jeu des postures de l'enseignant dans la classe: un multi-agenda de préoccupations enchaînées. *Éducation & didactique* (Vol. 3), 29-48.

Capt V., Brunel, M., & Florey, S. (2018). Les valeurs éthiques en jeu dans les classes francophones de littérature. Ce que font les enseignants et ce que disent les élèves (12 et 15 ans). *Repères*, 58, 99-118. <https://journals.openedition.org/reperes/1736>.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2^e ed.). SAGE Publications.

Dufays, J.-L. (2005). La leçon de littérature, entre schèmes d'action et gestes professionnels: questions méthodologiques et premiers repérages. *La Lettre de l'AIRDF*, 36, 10-14.

Dufays, J.-L., Brunel, M., Capt, V. and Fontanieu, V. (2020). (Faire) lire une même nouvelle à 9, 12 et 15 ans: quelles opérations de lecture et quels gestes didactiques? An international study of 44 classes. *Caractères*, 62, 22-42. https://www.ablf.be/images/stories/Caracteres/62/C_62_art2.pdf.

Dufays, J.-L., Brunel, M., Émery-Bruneau, J., Barthélémy, M., Capt, V., Brun-Lacour, I., Florey, S. and Lépine, M. (2020). Quelle progression des compétences interprétatives des élèves de 12 à 15 ans et quelle prise en compte par leurs enseignants? An international study. *Pratiques*, 187-188. <https://doi.org/10.4000/pratiques.9007>.

Falardeau, E. and De Croix, S. (2023). Les études mixtes en didactique du français : comment la combinaison des résultats quantitatifs et qualitatifs éclaire-t-elle nos objets de recherche? *La Lettre de l'AIRDF*, 71, 32-25.

Falardeau, É., & Pelletier, D. (2015). Le préalable de la compréhension pour l'appréciation d'un texte littéraire. *Le Français aujourd'hui*, 190, 85-97.

Gabathuler, C. (2016). *Apprécier la littérature. La relation esthétique dans l'enseignement de la lecture de textes littéraires*. Presses universitaires de Rennes.

Goigoux R. (dir.) (2016). *Lire et écrire. Rapport de recherche. Étude de l'influence des pratiques d'enseignement de la lecture et de l'écriture sur la qualité des premiers apprentissages*. IFÉ [<http://ife.ens-lyon.fr/ife/recherche/lire-ecrire>].

Hébert, M. (2019). *Lire et apprécier les romans en classe. Enseignement explicite, journaux et cercles de lecture*. Chenelière Éducation.

Johnson, R. B., Onwuegbuzie, A. J. and Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112-133. <https://doi.org/10.1177/1558689806298224>.

Lacelle, N., Boutin, J.-F., & Lebrun, M. (2017). *La littératie multimodale appliquée en contexte numérique. Outils conceptuels et didactiques*. Presses universitaires du Québec.

Lafontaine D. (ed.) (2018). *PIRLS 2016. Progress in International Reading Literacy Study. International reading literacy study*. Research report. Université de Liège.

Le Goff, F. and Fourtanier, M.-J. (2017). *Les formes plurielles des écritures de la réception*. Presses universitaires de Namur (Diptyque).

Louichon, B. (dir.) (2020). *Un texte dans la classe*. Peter Lang (ThéoCrit').

Marlair, S. and Dufays, J.-L. (2009). Quels gestes dans la classe pour quel enseignement-apprentissage de la littérature? Regard sur quatre leçons de 5^e année secondaire. In D. Bucheton, & O. Dezutter (dir.), *Le développement des gestes professionnels dans l'enseignement du français. Un défi pour la recherche et la formation* (pp. 61-82). De Boeck.

Marlair, S. and Dufays, J.-L. (2011). (Faire) découvrir un texte littéraire en classe. Ce que les variations du geste enseignant révèlent de la relation esthétique au texte. In Chabanne, J.-C. and Dezutter, O. (dir.), *Les gestes de régulation des apprentissages dans la classe de français. Quelle improvisation professionnelle?* (p. 83-106). De Boeck.

Mercier, A. and Salin, M.-H. (1988), L'analyse a priori, outil pour l'observation. École thématique. Université d'Été de Didactique des Mathématiques, Olivet, pp. 1-4. <https://doi.org/10.4000/1140/RG.2.2.11591.70561>.

Mottier Lopez, L. (2012). *La régulation des apprentissages en classe*. De Boeck.

Perrin-Glorian, M.-J. and Reuter, Y. (eds.) (2006). *Les méthodes de recherche en didactique. Actes du Premier séminaire international de juin 2005*. Presses universitaires du Septentrion.

Ronveaux, C. and Schneuwly, B. (eds.) (2018). *Lire des textes réputés littéraires : disciplinisation et sédimentation. Enquête au fil des degrés scolaires en Suisse romande*. Peter Lang (ThéoCrit').

Schneuwly, B., Sales Cordeiro, G. and Dolz, J. (2005). À la recherche de l'objet enseigné : une démarche multifocale. *Les dossiers des sciences de l'éducation*, 14, 77-93. <https://doi.org/10.3406/dsedu.2005.1210>.

Sensevy, G. and Mercier, A. (2007). *Agir ensemble. L'action didactique conjointe du professeur et des élèves*. Presses universitaires de Rennes.

Schubauer-Leoni M.-L. and Leutenegger F. (2002). Expliquer et comprendre dans une approche clinique/expérimentale du didactique ordinaire. In F. Leutenegger and M. Saada-Robert (eds.), *Expliquer et comprendre en Sciences de l'Éducation*. (p. 227-251). De Boeck Université.

Tauveron C. (1999). Comprendre et interpréter le littéraire à l'école : du texte réticent au texte proliférant. *Repères*, 19, 9-38.

Teddlie, C. and Tashakkori, A. (2009). *Foundations of mixed methods research: Integration quantitative and qualitative approaches in the social and behavioral sciences*. SAGE Publications.

Venturini, P. and Amade-Escot, C. (2008). Introduction L'approche comparatiste dans l'analyse de situations didactiques. *Les dossiers des sciences de l'éducation*, 20, 7-11. https://www.persee.fr/doc/dsedu_1296-2104_2008_num_20_1_1138.