

The potentially differentiating characteristics of teaching materials and their uses by primary school teachers

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Abstract

This article seeks to identify the potentially differentiating characteristics of teaching materials, i.e. their semiotic and discursive heterogeneity and the framing of the intellectual activities they propose, and then asks: how do teachers take this into account in the classroom? We present here a case study concerning the teaching practices in history by two French 4th grade teachers. These teachers (working in schools in working-class neighbourhoods in Priority Education Networks) use the same teaching resource but, nevertheless, take account of the characteristics of the material in different ways, which could lead to more or less demanding learning and therefore encourage social inequality in learning. Thus, it suggests that while classroom materials and their attributes play an important role, they do not solely determine usage or learning outcomes.

Keywords: learning materials, semiotic and discursive heterogeneity, framing of intellectual operations, teachers' adaptations and uses of learning materials

Introduction

In France, pupils experiencing failure or difficulty at school are most often from working-class backgrounds (Bernigole et al., 2019; Chabanon et al., 2019). As in other industrialised countries, there is a national scheme to help students from low socio-economic background: the Priority Education Networks (REP) are schools and colleges where educational action is stepped up. However, the REP scheme does not curb academic failure, since these pupils obtain results in national and international assessments that are well below those of other pupils. There are various possible explanations for this. Firstly, research highlights the fact that pupils from working-class backgrounds are confronted with textbooks and other classroom materials¹ that are complex/composite and far removed from what they are familiar with (Bautier, 2015; Bonnéry, 2015;

¹ For example, there are reproducible sheets from teacher blogs and materials from the Ministry of Education website (Eduscol). <https://eduscol.education.fr/74/enseignement-et-formation>

Ferone & al., 2016). Indeed, the semiotic and discursive characteristics of these learning materials can hinder the learning of pupils who are remote from the school culture if the teacher does not take them into account in class. Moreover, pupils from working-class backgrounds, more than others, are often confronted with learning materials in which the questions and exercises are of low intellectual demand, on the pretext that it is necessary to adapt to their level (Charlot et al., 1992). Consequently, teaching materials and their use in the classroom by teachers are believed to be the cause of social inequalities in learning (Bautier, 2015; Charlot et al., 1992; Bonn  ry, 2015; Ferone et al., 2016; Rochex, 2011).

Our contribution, which is the result of a doctoral research carried out in partnership with educational publishers², is based on the sociology of education and is concerned with inequalities in learning. It examines the potentially differentiating characteristics of the materials – their semiotic and discursive heterogeneity as well as the intellectual level of the activities proposed – and studies how teachers take this into account in the classroom.

This research is particularly interesting to carry out in the French context where teachers are free to choose and design the teaching materials they present to pupils and are free to use them as they wish in the classroom (Bruillard & Paindorge, 2022; Choppin, 2005).

We will begin by reviewing the characteristics of potentially inequitable learning materials, then outline our research methodology and questions. Finally, we will present our results. We will then highlight that not everything depends on the characteristics of learning materials when it comes to combating inequalities at school. In fact, with a similar teaching resource, two teachers can consider the characteristics of this material in different and differentiating ways.

Characteristics of potentially inequitable learning materials

We analysed all the learning materials provided by teachers to their students in the classroom, whether in paper or digital form: double-page textbooks, photocopied worksheets, labels, digital projections on the blackboard, etc. As defined by Bonn  ry (2011), learning materials encompass everything that is presented to students in the classroom to facilitate learning and that encourages them to work, reason and think. More specifically, we examined some of the characteristics of these materials and the extent to which teachers take them into account in the classroom, potentially contributing to the emergence or reinforcement of educational inequalities.

² Doctoral thesis in educational science by Camusson (2023).

The characteristics of semiotic and discursive complexity

A number of studies have gradually highlighted that classroom materials consist of a diversity of semiotic and discursive characteristics (Bautier et al., 2012; Bonn  ry, 2015; Ferone et al., 2016). Diachronic analyses of textbooks (Vigner, 1997; Bonn  ry, 2012) show that these characteristics have evolved over time and have become increasingly complex. Vigner (1997) describes textbooks as follows:

formatting of information and knowledge for the child/student [in] fragmented devices (multiple boxes) superimposed on a text in columns that are heterogeneous in nature (images, diagrams, texts, statistics) with very varied sources of information and modes of enunciation, thus allowing multiple entries and reading paths. (p. 47)

In the same vein, more recent studies (Bautier et al., 2012; Bonn  ry, 2012; Joigneaux, 2015) show that textbooks, as well as other learning materials, are complex because they are heterogeneous from a semiotic point of view. All of today's learning materials are made up of written texts, images, tables, graphs, icons, captions, audio documents, videos and more, which often need to be linked together. The abundance of these elements in learning materials can result in a fragmented reading experience, sometimes resembling a treasure hunt. These authors also point out that learning materials are heterogeneous from the discursive point of view, which adds to their complexity. In fact, there is an enunciative heterogeneity³, an alternation between written and oral registers and different intentions, different communication issues (instructing, entertaining, convincing, etc.) (Ferone et al., 2016). This leads to uncertainty about the truth value of the information contained in the teaching materials.

In order to learn with these complex instruments, children must engage in high-level intellectual activities. According to Bonn  ry (2015), dealing with semiotic heterogeneity requires numerous cognitive skills, such as relating heterogeneous texts and documents, formulating intermediate conclusions for each activity or instruction, constructing a final conclusion constituting a homogeneous whole institutionalised as knowledge, and making this construction conscious ... Dealing with discursive heterogeneity presupposes, in particular, that the pupil finds her/his bearings in the heterogeneity from the enunciative point of view, differentiates between what is written and what is oral, and distinguishes the essential from the ancillary, etc., and distinguishes the knowledge to be retained from the rest. Some pupils, mainly those whose families do not provide them with a high level of legitimate and academically profitable cultural

³ Several enunciators are present in heterogeneous and interconnected communication situations: there is the designer of the textbook, who may be addressing the pupil, but also the discourse of other enunciators addressing other interlocutors in another context.

capital, do not have the knowledge and know-how to learn with complex learning materials, and teachers must take this into account when encouraging pupils to use these materials in class. If this is not the case, it fosters the creation of inequalities in learning, since not all pupils have the necessary codes to use and learn with these materials.

The framing⁴ of intellectual activity

Learning materials and their use in the classroom may also create inequalities at school by providing a different framing for pupils' intellectual activity (Rochex, 2011). This involves adapting the learning material and/or its support so that it is used according to the actual or perceived level of the pupil, and, in so doing, by means of 'over-adjustments' (Bautier & Goigoux, 2004, p. 97), the task is simplified to the point where the pupil does not have to face up to the demands of the actual class level, thus gradually widening the gaps. Differentiation in the framing of intellectual activities can take several forms. Firstly, framing can vary when the learning materials are adjusted according to the children's level of difficulty. Bautier et al. (2012) explain, for example, how one teacher differentiated the learning materials within a class on reading comprehension: the 'struggling' pupils were given a comic strip and the more advanced pupils a story. The comic strip and the teacher's framing encouraged the weaker readers to decipher words and not to construct a general meaning from the text. The more advanced pupils, on the other hand, remained focused on the initial objective of the session, on comprehension.

The learning materials and their framing may also depend on the social context of the school and therefore *a fortiori* on the social background of the pupil. Bonn  ry et al. (2015) found that from kindergarten onwards, schools located in REP⁵ made different choices from those in more privileged backgrounds. "Heritage stories are more prevalent outside the REP, while in the REP it is stories about everyday life and books on themes that are more widely available to the general public" (Bonn  ry et al., p. 53, author's translation). These different choices can "lead to uneven appropriation of the skills needed to master complex written texts" (Bonn  ry et al., p. 54, author's translation).

Differentiation in the framing of intellectual activity can also occur with the same learning material intended for the whole class, when the teacher's framing varies according to the type of student he or she is addressing. As Bonn  ry (2011) shows, when the student who is "least familiar" with the school code asks for help, the teacher sometimes frames the activity very narrowly around a purely executive task, diverting the

⁴ As defined by Bernstein (2007).

⁵ As a reminder, REP (Priority Education Networks) are initiatives where educational support is intensified to combat school failure. These networks consist of schools and colleges where social challenges are more prominent, with a predominance of students from working-class socio-professional backgrounds.

learner's attention away from the knowledge at stake. The teacher's framing (linked to adaptation to the student's difficulties) then creates "a 'together-separated' learning space" (p. 8), in which there is a difference in tasks and learning outcomes between students from contrasting social backgrounds (Bonnéry, 2011).

Research methodology and research questions

In order to better understand how the choice of learning materials and their usage impact the creation of inequalities, we conducted both qualitative and quantitative research (Camusson, 2023). A questionnaire was first administered to 511 primary school teachers (4th grade) about their practices in history and spelling lessons⁶, their teaching context, and their personal characteristics. The respondents also provided us with 346 class materials⁷ which were analysed. This analysis enabled us to characterise the history and spelling materials in terms of complexity (semiotic and discursive heterogeneity) and the framing of intellectual activities. Finally, some of the teachers (14) were interviewed and observed during a classroom lesson. More specifically, for this part of the research methodology, each teacher was recorded during a history lesson on *the Age of Kings or the Republic* and a spelling lesson on *subject-verb agreement*, using two audio recorders placed at different locations in the classroom. Photographs of the room and the blackboard were taken to check the layout of the classroom and the various written materials displayed (particularly the posters). At the same time, a field diary was kept. It documented the layout of the room, the location of the materials used during the session, the placement of students in difficulty, the position of the teacher, the students who raised their hands, as well as the body language and attitudes of the teacher and learners, in order to highlight what was not visible through the audio recordings. Interviews with the teachers were conducted after the classroom observations and lasted at least 30 minutes. They were semi-structured, directing the teachers' responses toward the elements essential to our research. The interviews were organised around three chronologically ordered themes: the choice of medium (*before* the lesson), its use *during* the session, and the future of the medium (*after* the lesson). Lastly, the interviews were conducted in the classroom, as discussions based on situations observed in the same place provide a more accurate reflection of the contextual reality of the classroom.

Rigorous measures were taken in order to ensure the anonymity and integrity of the interviewees. In accordance with the ethical standards of educational research, several strategies were implemented to guarantee, among other things, the confidentiality and

⁶ Comparing teachers' instrumental practices across two disciplines makes it possible to identify what is specific to the discipline itself and what depends on the teaching context or on the teachers' individual characteristics.

⁷ Teachers uploaded their material to the website where the questionnaire was published (photographs or scans), or provided references and page numbers in the case of textbooks.

anonymity of data⁸, the informed consent of participants⁹, and the secure storage of all sensitive information.

In this paper, we focus on work with two 4th grade teachers, H       and St      ¹⁰, who teach in REP schools¹¹ and were observed during one history lesson. These are interesting cases to compare because they both offered their pupils learning materials having similar characteristics.

Learning materials with egalitarian characteristics

St       and H       both chose to select activities in the same teacher resource¹² entitled *Comprendre le monde* (Understanding the world¹³). During our observations, each chose a specific theme: H       worked on the first feudal castles and St       on Louis IX¹⁴. As explained below, the material provided to students (through photocopies) is not very complex, neither from a semiotic nor a discursive point of view, and the activities proposed are relatively demanding.¹⁵

In terms of semiotics, the graphic quality of the documents is fairly good and the reading direction is unambiguous. The typography helps students to find their way around, since it is consistent for each level of information and there are four levels of clearly distinct headings. The density of information in these learning materials is low. H      's material consists of six documents (two drawings, one sketch, and three historical texts), while St      's material consists of five documents (two paintings and three historical texts). In comparison, the average history learning material generally consists of 10 documents. Work instructions are limited, with only three instructions per material, whereas the average history material contains 10. Finally, the documents to be studied can be given out and projected as the session progresses. The pupils are then guided on what to look at and process.

⁸ The information collected from participants was treated as confidential. A unique code was assigned to each person who completed the questionnaire, which made it possible to separate the responses from the personal data. The first names of the teachers observed and interviewed were changed. Names, addresses and any other identifying information were removed or made anonymous.

⁹ Each person was informed of the nature of the research, the objectives pursued, the procedures followed and their right to withdraw from the study at any time without suffering negative consequences.

¹⁰ First names have been changed to ensure anonymity. Some of their characteristics are given in the appendices (table 1).

¹¹ More than 30% of the pupils in this academic region, where our teachers work, attend REP schools. https://www.education.gouv.fr/sites/default/files/imported_files/document/depp-2018-RERS-web_1075287.pdf

¹² This "teacher's guide" takes the form of a book with photocopiable pages for pupils, information on the knowledge being taught, and methodological points for the teacher.

¹³ Bouteville, E. and Falaize, B. (2017). *Histoire CM1 : Comprendre le monde*. Paris: Retz.

¹⁴ King of France 1226–70.

¹⁵ They are not very complex and are demanding in comparison with the 346 teachers' teaching materials analysed, since our research includes a quantitative part with 172 history teaching materials and 174 language study teaching materials.

From a discursive point of view, the enunciators of the different documents are few in number and clearly identifiable thanks to the captions. In this way, the historical facts presented by each document are situated in relation to the time and place of the utterance (as recommended for a history lesson by Sensevy & Rivenc, 2003). Finally, the words essential to understanding certain documents are defined. Taken together, the learning materials used by these two teachers are not very heterogeneous from the semiotic and discursive points of view, and the way in which the content of the learning material is formatted makes it easier for all the pupils to grasp and understand it, and to take part in the activities.

In terms of framing intellectual operations, the learning materials offer activities that are commonly expected in the current curriculum. They specify the subject and the objective in the form of a nominal group (*Au Temps des Capétiens*). This leads the class, from the start of the session, towards the knowledge to be built up and places it within a subject area. The objective is also problematised (“How did peasants and lords live in the time of the first castles?” for Hélène and “Why was Louis IX considered a saint?” for Stéphane) and aims to encourage pupils to investigate. Some of the proposed activities require pupils to extract information¹⁶. Others are more demanding and encourage a more interpretative reading¹⁷, e.g. search for clues to construct an interpretation/conjectures about events in the past (as advised by Cariou, 2016). Finally, the resource proposes a final activity for the pupils, designed to link what they have done and learnt during the session and to produce a written trace in the form of a text.

Research questions

The characteristics of these two learning materials, taken from the same educational resource – in particular their low complexity and the framing of the activities – can help to reduce the creation of learning inequalities by encouraging all students to engage with the materials and work on challenging activities. At this stage, it is essential to examine how teachers supervise and guide the use of this material in the classroom. To do this, we observed and analysed Stéphane’s and Hélène’s sessions. We then asked the following questions: How do two teachers working in a school where the majority of pupils come from working-class backgrounds (in a REP) manage the use of learning materials with a low potential for creating inequalities? How do they manage the use

¹⁶ In Hélène’s learning materials: “Read the text below and then colour in in blue what the peasants have to do for the lord and in red what they do for themselves.” (author’s translation). In Stéphane’s learning materials: “Underline all the passages in the texts that show that Louis IX was considered a very Christian king.” (author’s translation)

¹⁷ In Hélène’s learning materials: “In the speech bubbles [placed above a painting depicting a lord giving orders and peasants working in the fields], make the characters speak by putting yourself in their place.” (author’s translation) In Stéphane’s learning materials: “Cut out this boat, stick it on a piece of paper and then draw the setting that corresponds to document 2 (the destination land, the inhabitants and their reactions). Under your drawing, write a few lines to describe the scene.” (author’s translation)

of materials that are relatively simple in semiotic and discursive terms? And how do they encourage their pupils to engage with materials that involve demanding activities? In short, how do two teachers from working-class backgrounds take account of the characteristics of these materials in their teaching practices?

Contrastive case study of how two teachers considered the characteristics of learning materials

Our two teachers, Stéphane and Hélène, did not use the learning materials in the same way. During the session we observed, Hélène used the materials as suggested in the teaching guide. She used only the suggested learning materials. She frequently referred to the instructions provided in the guide, specifically the essential subject knowledge for the lesson and the description of how the session should unfold. During his lesson, Stéphane deviated from the use of the learning materials suggested in the guide. He did not give the children the activity sheet to do individually and preferred to show the documents one by one and discuss each orally with the class. These teachers do not take on board all the features of the learning material in the same way.

A similar way of taking semiotic complexity into account

The two teachers made it fairly easy for the pupils to deal with the semiotic heterogeneity of the learning materials. For example, Hélène and Stéphane directed the pupils' gaze by indicating elements of the projected documents with their fingers or by zooming in. As the document below illustrates, they also used certain options offered by the resource to show what they were talking about on the digital board.



Figure 1: Extract from H  l  ne's learning material

There is an option to focus on a character or characters in the document being studied (a clergyman, knight or peasant). By clicking on it, the teacher distinguishes it or them from the rest, which becomes darker, thus helping the pupil identify what to focus on. In this case, using this option highlights the three orders of feudal society: the clergy, the nobility, and the peasantry.

This example shows how H  l  ne and St  phane use projection and the options and possibilities it offers. In this way, they avoid saturating the presentation (Tricot, 2020) by concentrating on the document and the elements of the document to be seen and analysed.

Different ways of taking discursive heterogeneity into account

The two teachers framed the discursive heterogeneity of the learning material in different ways. Admittedly, they both defined words and concepts that were essential to the lesson, such as "dynasty", "seigneurie", "tenure", etc. for H  l  ne and "Saint" or "royal decree" for St  phane. They clarified certain ambiguities between terms such as "castle" and "seigneurie", "soldier" and "lord's agent", or "sword" and "pilgrim's staff". However, H  l  ne provided the students with more support for navigating the discursive heterogeneity of the learning material, particularly when she questioned the

enunciator/author of the historical documents or when she focused the pupils on the communication issue and the learning objective. During his conversation-based lesson, Stéphane, on the other hand, probably made it more difficult for the students to deal with discursive heterogeneity.

First of all, when speaking, he mixed information belonging to the personal register with other information belonging to the impersonal register (i.e. knowledge). He thus referred to the Avengers¹⁸ and a French rap music group, NTM. Here is an extract from what he said to his class: “Power! The power! As a well-known rap group would say. These people represent power and you can see that he’s been crowned king, so what does it mean symbolically? The fact that he’s a king?” By his referring to the rap group NTM, the boundaries between what comes under the heading of knowledge and what concerns the pupils’ everyday lives is therefore blurred, which might cause difficulties for some of them.

Secondly, the teacher used a humorous approach, which makes it more difficult to distinguish knowledge from the rest. For example, after turning off the lights to show the first image, he said: “Everything's going to be fine. We're at cruising speed at an altitude of around ten thousand metres”. Finally, Stéphane put himself in the place of the various historical figures by having them speak, which presupposes certain prerequisites on the part of the students (differentiating between speakers, the essential from the accessory, discourse genres, etc.). For example, he said:

[...] taxes, in other words, taxes would be the same for everyone. It's not, “You're a lord, you're going to take twenty from him, twenty from her and twenty from her. You're another lord and you have to take ten, ten, ten.” No, he [Louis IX] was going to standardise all that, he was going to say, “Well, everyone's going to give four”. He also asserted his authority over the lords, telling them, “Hey, I'm the boss now ... I'm the king. Do you agree? I've been chosen by God. I'm one of the Lord's chosen ones, so as you're Catholics too, it's up to me...”

This desire to play roles and imitate characters recurred throughout the session, permeating Stéphane's speech. Marks of enunciation (making it possible to identify who is speaking, to whom, where and when) are difficult to detect and cast doubt on the truth of what the teacher is saying. In the end, this way of teaching orally presupposes that the pupils are familiar with the codes of the school and that they identify the many implicit elements, the different discourse registers, the communication issues... and that they distinguish the knowledge from everything else. Various studies show that these cognitive-language skills are socially related (Bautier, 2015; Lahire, 2019), which

¹⁸ The Avengers are a team of superheroes from Marvel Comics. Comprising characters such as Iron Man, Thor and Captain America, they unite to fight global and intergalactic threats, embodying a theme of collective heroism.

leads us to believe that many of these REP pupils may be kept at a distance from the knowledge in this course.

Different ways of managing intellectual activities

The teachers' framework for intellectual activities also differed, and one of them led the pupils (from working-class backgrounds) in undemanding activities.

Hélène: a respect of the demanding nature of the learning materials

Hélène encouraged all learners to engage in high-level intellectual activities. She structured the lesson around knowledge building. For example, she prevented some children from getting lost in the task by quickly rushing through a colouring activity or by reading the sentences in a document for pupils with reading difficulties. She encouraged all the children to participate and to take everyone's views into account. All the learners were questioned, particularly as, when correcting exercises, she randomly drew the names of several of them. They were all helped to produce written answers to questions in the pedagogical material. When necessary, she guided certain pupils towards what is required.

Hélène also incited them to adopt a historian's approach: to conduct an internal and external critique of the documents by studying the legends and asking questions, particularly about the author's intention, and to make assumptions about the past (Cariou, 2022).

For example, she asked the pupils about the caption on a document, a 13th century song, and about the author's purpose. She explained: "In 1200, it was a song, *la chanson des vilains*, so vilains doesn't mean 'hideous'¹⁹. She explains that *vilain* comes from the word *villa*, which refers to Gallo-Roman farms, and that *vilains* in the Middle Ages referred to people who worked in the countryside, in agriculture. She added: "Whoever wrote this was an author and his aim was to describe the life of peasants." In this way, she guided the children towards an interpretative reading of the documents (Cariou, 2022). To obtain this information, she referred to the instructions for teachers in the guide.

Finally, throughout the lesson, there were moments for institutionalising knowledge. She wrote keywords on the blackboard as they were discovered. At the end of the session, she asked pupils to individually write what they had learnt. Some of the pupils were then invited to read aloud their production to the class. Hélène then gave the students a handout with a written lesson (to be learned) and a timeline. She had written H12 on this sheet (meaning that this is the 12th history lesson) to help the children integrate this knowledge into the subject matter and tidy up their worksheets.

¹⁹ Today, in France, the word *vilain* means a hideous person. In the Middle Ages, a villain was a peasant.

As a result, the characteristics of the learning materials and the teacher's use of them in the classroom are consistent with each other. They are demanding and attempt to maximise learning for all pupils.

Stéphane: a diversion of the original framing, at the cost of less demanding individual activities

The individual activities suggested by the learning materials for the children were not carried out. The teacher, Stéphane, preferred to discuss the various documents with the class. As Audigier and Basuyau (1988) and, more recently, Moisan and Saussez (2019) have observed in a number of classes, the documents are used above all to illustrate and support the teacher's words and narrative in a sort of dialogue-based lesson. There was a very clear question-and-answer game, in which Stéphane had the pupils observe each document, leading to an emphasis on relatively undemanding intellectual activities. The questions put to the students essentially served to describe and extract explicit information. So, for example, when studying a document, he asked: "What's written there? Now we're going to describe the picture, what do you see? Nissa, what do you see?", "What does the girl look like?", "What position is she in?" ... Sometimes the questions are based on the pupils' own knowledge, such as, "Do you know anything about the Crusades?" or "What was the main reason [for the Crusades]?" This question-and-answer exchange was sometimes reversed, with learners asking Stéphane: "What's that lady holding in her hand?", "Why didn't his wife come to see him?", "Why aren't they all dressed the same?" As the lesson progressed, the teacher limited the number of questions, telling the class, "We've got to move on!" This session revealed very little critical work on documents, which were largely treated as simply telling the story of the past – a pattern frequently observed in this subject (Cariou, 2022).

At the end of the session, and more specifically during the construction of the knowledge lesson, the children were asked to reproduce a sequence of information they had heard during the session. They were not encouraged to make links between the documents they had studied, or even to respond to the problem set out in the textbook.

The learners gave a brief description of Louis IX and what he did using the documents presented in the lesson.

The teacher's framework was strong²⁰: he asked questions and gave clues to get what he wanted. For example, in order to get the pupils to say that Louis IX was a Saint, the teacher made them guess by explaining, "What did I say to the ... At a given moment, I told you, he was ... Think of the calendar". This suggestion of answers leads to a "Topaz effect"²¹ (Brousseau, 1998). "The teacher ends up taking on most of the

²⁰ Bernstein (2007) defines strong framing as a state of contexts where control over communication, the limits of knowledge and pedagogical discourse is strongly regulated by the teacher.

²¹ Brousseau refers to a scene from Marcel Pagnol's *Topaze*. Topaze gives a dictation to a bad pupil and, not accepting the pupil's mistakes, strongly suggests the answers.

work.” (Brousseau, 1998, p. 52). The lesson copied by the teacher on the blackboard corresponded to what was suggested in the teaching guide. It was quite different from what the pupils had proposed orally. The discrepancy between what was expected by the teacher and what was proposed by the pupils is due to the fact that the written trace on the board responds to the problematised objective of the resource (“Why was Louis IX considered a Saint?”) whereas the children, orally, responded to the teacher’s question, “So, what do you think we have learnt about this dear man [Louis IX] today?” Stéphane let the class believe they had constructed the lesson written on the blackboard, saying: “Please write the summary. OK then, it’s exactly what you said.” The pupils have not analysed the documents to answer the initial problem, but have given a series of given items of information. This has had the effect of misleading the students about what they had really done during the session in terms of intellectual work.

In summary, by changing the use of the learning materials, Stéphane made the learning objectives (in particular the central problem of the lesson) less visible to the pupils and bypassed the instructions of the learning materials in favour of a dialogue-based lesson that did little to encourage pupils to engage critically with the material. This approach limits these REP pupils to a low intellectual level of engagement in the activities, mainly the retrieval of information, and it also presupposes a certain number of prerequisites (particularly for dealing with discursive heterogeneity), which are socially held.

Our analysis highlights how two teachers considered certain characteristics of teaching materials differently, and this could (based on what we know from the work of Bautier et al., 2012; Bonnéry, 2015; Ferone et al., 2016; Joigneaux, 2015; Lahire, 2019; Rochex, 2011) exclude certain pupils from more demanding learning.

Conclusion

What this contribution confirms is that taking account of pupil diversity cannot solely be explained by the choice of learning materials (as if there were some kind of determinism of objects) and not everything can be explained by teaching practices. Learning materials and teaching practices, and more specifically the characteristics of learning materials and whether or not teachers take them into account in the classroom, need to be considered together if the demanding learning expected in today’s schools is to involve all pupils.

The different ways in which two teachers have adopted the same materials open the way to further research and questioning. Firstly, they open up avenues for research that analyse the real effects on pupils. Secondly, the aim is to identify the influences of these different ways of appropriating teaching materials and to ask: how do teachers’ social, academic, and professional experiences produce certain dispositions to act in particular

ways with teaching materials? It is likely, for example, that Stéphane's personal experience of working-class life (he grew up in a working-class area of the Paris suburbs) and his professional experience in theatre led him to use classroom learning materials in this way. In his interview, he explained that using what working-class pupils know (or what he thinks they know), i.e. celebrities from working-class neighbourhoods and oral language rather than written language, facilitates learning in the classroom. He did not realise that he was offering these REP pupils an undemanding session. Adapting to one's class, as Stéphane does here, can create social inequalities in learning (based on what we know from the work of Bautier et al., 2012; Bonnéry, 2015; Ferone et al., 2016; Joigneaux, 2015; Lahire, 2019; Rochex, 2011).

As for Hélène, she had taken several training courses (on materials and educational inequalities in the classroom) and this is no doubt what drove her to use the resource in this way and to be demanding with her pupils from working-class backgrounds. Different levels of socialisation can undoubtedly influence the appropriation of educational resources. While training plays a positive role in this process, the reduction in teacher training time in France is certainly a cause for regret.

We are aware that the contrastive case study presented here below cannot lead to any generalisation, since it is limited to two teachers only²². However, it seems to us to draw attention to the possible consequences of limiting the level of exigency, particularly in working-class schools.

Biographical notes

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²² For a more complete study, see Camusson (2023), with its extensive dataset and combination of qualitative and quantitative methodologies (notably generalised linear models and factorial analyses).

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Appendices

Table 1: Characteristics of H  l  ne and St  phane

	Features	H��l��ne	St��phane
School context	Class level	4th grade	4th grade
	Size (number of classes)	From 10 to 13	More than 14
	Social context	REP	REP
	Level of students	Very heterogeneous	Very heterogeneous
	Internet connection	Not satisfactory	Satisfactory
	Number of digital tools	2 (computer and digital board)	2 (computer and digital board)
Characteristics of the teacher	Number of years of teaching	12	6
	Pathway specificity		Career transition
	Digital skills (0–7) ²³	5	5

²³ In a questionnaire, the teacher indicated what they do with digital technology in their personal lives. There are 7 possible uses: getting information, entertainment (film, music, etc.), exchanging/communicating, shopping, dealing with administrative formalities, creating montages and others. We then transformed this qualitative variable into a discrete quantitative variable.