Chapter 3
Patterns of Didactic Intentions, Thought Collective and Documentation Work

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Understanding someone's action requires, in particular, understanding his intention. Understanding an intention, or a system of intentions, does not necessarily mean understanding the whole action, but at least an essential part of it. This statement, however, could be understood as a form of solipsism (the intentions are specific to the individual) and mentalism (intentions are in the head). On the contrary, this text defends and illustrates an alternative conception, in which intentions are regarded as more or less shared and more or less external to the individual (Duranti, 2006).

This chapter participates in the general project of this book in underlining the essential dialectics between the documentation work and the shaping of intentions.

In this perspective, it aims to demonstrate how intentions are formed in a system of resources (Chapter 2). Intentions are therefore understood, through the documentational genesis process as resulting largely from a documentation work (Chapter 2) performed by the teacher.

This contribution falls within the scope of the Joint Action Theory in Didactics (JATD) (Amade-Escot & Venturini, 2009; Ligozat, 2008; Sensevy, in press; Sensevy & Mercier, 2007; Schubauer-Leoni, Leutenegger, Ligozat, & Flichgert, 2007), a theory situated in the general paradigm of joint action (Blumer, 2004; Clark, 1996; Elan, Hoert, Mc Cormack, & Roessler, 2005; Mead, 1934; Sebanz, Bekkering, & Knoblich, 2006; Tomasello, 2008). In this framework, human activity is seen as grounded in the recognition of signs founded in others' behaviors. It is viewed as a social game (Bourdieu, 1990, 1992; Bourdieu & Wacquant, 1992). The didactic activity is modeled as occurring in a didactic game that can be described, in particular, with the concepts of didactic contract and milieu (Brousseau, 1997; Sensevy, in press; Sensevy & Mercier, 2007; Sensevy, Mercier, Schubauer-Leoni, Ligozat, & Perrot, 2005) and their relation. According to this theory, the joint work of teacher and students can be seen under the description of two articulated moments: (1) didactic activity in situ, in which the
teacher makes the students play the didactic game; (2) the preparation of this activity when the teacher builds the game he will implement. We argue that the teacher's intentions are shaped in his documentation work. The morphogenesis of intentions, in the documentation work, is thus the link between the building of the game and the actual play that the teacher institutes.

In this chapter, we rely on practical descriptions of teachers' and students' practices, but our first objective is theoretical. We propose conceptual elements with a three-fold purpose. We try to achieve a better understanding of (1) the relations between intentions and didactical action; (2) the relations between classroom preparation and the actual implementation; and (3) how these relations unfold in a collective that can in some cases produce a specific thought style (Fleck, 1979, p. 99), a system of categories shared in this collective, that ultimately produces "the readiness for directed perception and appropriate perception of what has been perceived."

We then propose a description of the elaboration process of the game, supported by three related assertions we work out in this chapter. First, the resources system that the teacher mobilizes (in the process conceptualized by Gueudet and Trouche, Chapters 2 and 16) is a key source of his action. Second, the teacher's prior didactic intentions do not have to be found "in his head" or "in the situation," but in the dialectical relationship between resources or documents, and the way he anticipates the progress of the game in situ. The didactic intentions in action stem from the dialectical relationship between prior intentions and the game as it is enacted in didactic transactions. Third, the process that connects documents, prior intentions, and intentions in action is rooted in the inclusion of the action of individuals in a collective structure.

In the first part of this chapter, elaborating on Baxandall's Patterns of Intention (1985), we develop a framework to understand intentions from a generic viewpoint. We argue that prior intentions function as strategic rules that drive the teacher's game. The second part is devoted to the study of two empirical examples, which may illustrate the above framework. In particular, we show how prior intentions, as strategic rules (Hintikka and Sandhu, 2006), are drawn from the documentation work, and how the strategies they enact depend on the structure of the milieu suitable for the didactic action in situ. In the third part of the chapter, we briefly summarize our findings.

3.1 Patterns of (Didactic) Intentions

In his book (1985), Baxandall formulates a system of descriptions of the intentions of certain artists (e.g., Picasso) in relation to specific paintings (e.g., the Portrait of Kahnweiler). For this purpose, he first built a generic framework for studying how an English engineer, Benjamin Baker, built in the east of Scotland a bridge over the Forth River. To summarize Baxandall's conceptions, we can look at the following quotation:
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The intention to which I am committed is not an actual, particular psychological state or even a historical set of mental events inside the heads of Benjamin Baker or Picasso, in the light of which — if I knew them — I would interpret the Forth Bridge or the Portrait of Kalmus iner. Rather, it is primarily a general condition of rational human action which I posit in the course of arranging my circumstantial facts or moving about the triangle of re-enactment. This can be referred to as ‘intentionality’, no doubt. One assumes purposefulness — or intent, or, as it were, ‘intentionness’ — in the historical actor but even more in the historical objects themselves. Intentionality in this sense is taken to be characteristic of both. Intention is the forward-looking look of things. It is not a reconstructed historical state of mind, then, but a relation between the object and its circumstances (Baxandall, 1985, pp. 41–42).

One can notice the importance of the so-called ‘triangle of re-enactment’: there is a situation (first term), a problem arising from this situation (second term) and the solution-object (third term).

Let us see how Baxandall summarizes his investigation into the Forth Bridge:

One came first to the general Charge that the agent, Benjamin Baker, would be responding to, and noted that while it could be terse — ‘Bridge!’ — it was a rubric for performance that contained within it various general terms of the problem — spanning, providing a way, not falling down. From this one moved on to specific terms of the problem, which I called the Brief, though the name does not matter.... Together Charge and Brief seemed to constitute a problem to which we might see the bridge as a solution (Baxandall, 1985, p. 35).

To finish summarizing the framework provided by Baxandall, I will address the issue raised by the ‘relationship between object and its circumstances.’ Baxandall argues in the following way:

Some of the voluntary causes I adduce may have been implicit in institutions to which the actor unreflectively acquiesced: others may have been dispositions acquired through a history of behavior in which reflection once but no longer has a part. Genres are often a case of the first and skills are often a case of the second (Baxandall, 1985, p. 42).

We can now put forth a first formal framework for the description of intentions we will project on the description of didactic intentions.

1. The objects (and actions) can be described as solutions to a particular problem. To understand an object or action, it is worth asking the question of the problem they are supposed to respond to, and, in some way, which shaped them. One can see a close relationship between this way of conceiving things and the background epistemology in Dewey’s (1922) and Brousseau’s (1997) works, both of which focused on the notion of a situation.

2. Intentions are inherent to physical objects and environments in which these objects (and actions) are located. This view is obviously opposed to mentalistic or psychologizing conceptions of intentions. To understand the intent of an agent in a situation, even before questioning him or eliciting his rationale, we have to understand how the symbolic and physical milieu within which he is acting will lead to such or such intention. In this perspective, material objects themselves (e.g., tools) are purveyors of intentions and plans (Suchman, 1987),
for the use of people playing the appropriate social game. The concept of 'affordance' enables us to understand how objects may be viewed as purveyors of intentions: 'what we perceive when we look at objects are their affordances, not their qualities. We can discriminate the dimensions of difference if required to do so in an experiment, but what the object affords is what we normally pay attention to' (Gibson, 1979, p. 134). More broadly, it is the symbolic milieu (e.g., the meanings associated to a specific genre), and therefore the identification of the games that the agents are expected to play in specific situations that may give access to the intentions. One of the fundamental aspects of this milieu is that symbolism is not confined to action in situ and the here and now. Most of our actions are prepared.

3. It is useful and relevant to consider these intentions at various levels of granularity (specificity). In this respect, Baxandall distinguishes the 'Charge' that can 'summarize' the general intention specific to a particular action and the 'Briefs' that characterize these intentions locally.

It is interesting to notice that these scale levels call for a differential description of the action. In this perspective, one may usefully appeal to Searle's (1983) distinction between 'prior intentions' and 'intentions in action' to figure out how the prior intentions are redesigned as intentions in action in the current action at stake.1

4. The intentions have to be thought about in a broader framework than that fixed by the common epistemology. We saw in particular how Baxandall seeks to extend the meaning of the word 'intent' to both institutional practices (including genres) and skills. One can therefore read the intentions in the categories of perception and action that are provided by the institutions, and in skills inherent in the 'handling' of a particular object.

The four dimensions of the framework presented above can and should be specified in didactic action, and more specifically to the situation of the teacher who 'prepares the classroom.'

We must be aware of the specificity of this situation. In the intentional part of the documentation work, the teacher uses the resources of a given milieu to organize them into a document. Following Gueudet and Trouche (Chapter 2), we can consider such devices as artefacts monitored by a scheme of use. We have to acknowledge the intentional structure specific to the documentation work. The teacher, related more or less to a group, selects resources according to certain intentions. The arrangement he produces from these resources in turn redefines the system of intentions, which will be further reorganized in the effective course of action. As a 'historical object' (Baxandall, 1985, p. 42), a document embeds purposefulness. Intentional structure and actional structure codetermine the other in the document. In some ways, this is both the condition and the effect of this codetermination.

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1 In this respect, Pacherie's recent work (2008) may be also of some help.
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The second part of this chapter will be devoted to the empirical study of some elements of this process.

3.2 Didactic Intentions: An Empirical Study

The short empirical study that follows will allow us a first use of the theoretical framework above. For this, we will refer an example in mathematics in elementary school, in which we try to understand what is going on when the teaching intentions are designed in a specific collective, within an implementation process of a new version of a given instructional design.

The collective we talk about is a group of teacher educators and researchers. The teacher educators are half the time in their primary school classroom and so able to implement the instructional sequences designed by the group. The collective work we describe has been conducted for 2 years and is inscribed in an ongoing process.

The instructional sequence is called Treasures Game. It is a months-long didactical sequence, designed for Kindergarten by Brousseau and his team at the beginning of the 1980s, as documented in Pérès (1984). Brousseau (2004) has presented strong theorization of this research design, which he considered as a fundamental situation for the notion of a representation.

The Treasures Game consists of producing a list of objects to be remembered and communicated. The didactic device takes place over a long period (about 45 sessions, of variable duration), which thus becomes a ritual time, but one where the rules change as the game progresses.

There are four main stages in the game (Schubauer-Leoni, Leutenegger, Ligozat, Flückiger and Thevenaz-Chrisens, 2010²):

In Stage 1, the teacher presents two or three small new objects belonging to the world of children to all the children. The objects are passed from hand to hand, the teachers ask the students to name them and then she puts them in a gray box (the treasure chest). She then asks: what's in my box? A student then calls out the name of an object, the teacher pulls it out of the box and places it in full view of everyone. 'Is my box empty?' she asks, and if not, the game continues, and so on.

The game takes place every morning. Every two or three days, new objects (two or three objects) appear and are added to the previous ones.

By the end of 1 month, the whole class has emptied a box of 40 objects seemingly disparate but carefully chosen. This stage is played out with the entire group of students and focuses on the creation of a verbal system of reference for the objects in the treasure chest.

Stage 2 starts the individual memory game, as each pupil must remember the two objects that are hidden daily in the treasure chest.

All the children understand the game and are able to succeed, which means, memorize short lists of items from the morning to the evening.

² I would like to thank Florence Ligozat for sharing this text with me.
Stage 3 is an individual game aimed at making lists whose production is driven by an important change in the rule of the game (jump from 2 to 10 or 12 hidden objects): the informational leap that finishes Stage 2.

Stage 4 is aimed at collectively developing a common code and is driven by a communication game between pupils.

The purpose is to offer children new to school life, an opportunity to experience the necessity to rely on a graphical code (drawn or written) to remember a set of objects and to communicate about them with others. It is the very basis of the representation process that is triggered through this game.

3.2.1 Designing New Versions of the Treasures Game: The Building of Intentions as a Collective Strategic System

We now focus on Stage 3 of the instructional sequence at the end of Stage 2.

It is an important moment, in that the students are confronted with what Brousseau coined as an 'informational leap.' The epistemic strategies that enable the students to memorize the right objects (by relying on their 'internal' memory) are invalidated by the large number of objects they have to retrieve. For students, it is impossible to memorize 10 or 12 objects without an external (public) representation of these objects. Therefore, introducing this informational gap aims to foster the students' passage to an external representation, or inscription system.

In the following, we compare three ways of thinking about this crucial moment, in the two studies we mentioned in the previous sections, and within our collective.

The first way of thinking is presented by Brousseau (2004, p. 256):

The passage from 3 to 10 represents a considerable complexification of the situation. The unruffled teacher notices failures, but remains encouraging. 'Think, we'll get it' ... No child of that age can invent or even conceive the answer all of a sudden, by making a list of objects designed with small drawings of these objects, because the process can succeed only if one controls together all the components. On the other hand, the project can be meaningful only if the children consider, at the outset, specific means to carry it out. The situation appears to be blocked, which causes teachers' anguish. Yet, we observed that each year, drawings and lists appear.

For Brousseau, the adoption of a list of written codes, even if it 'causes teacher's anguish,' is not really problematic. 'Elements of solution appear and spread in the classroom' and 'The method of making lists of drawings is quickly adopted.'

Schubauer-Leoni et al. (2010), in the 'second generation' of the implementation of the Treasures Game, consider this issue as follows:

'This is the trickiest moment and one should not expect the pupils to put in place the relevant strategies straight away ... The problem faced by the pupils is that they must feel empowered to shift to a remembering process based on inscriptions. I cannot suggest drawing as this would be too strong a command for the pupils and
it would prevent them from feeling the *need for a list*. It is in the discussion between the pupils that this idea can come to light."

We can acknowledge a similar conception of the way the teacher and the students have to deal with the informational leap and the necessity to adopt a 'remembering process based on inscriptions.' As 'Brousseau's teacher' must stay 'unruffled' and trust the students' invention, 'Schubauer-Leoni and coworkers' teacher' 'cannot suggest drawing,' and the necessity of designing writing codes (the inscription process) has to stem from 'discussion between the pupils.' In the same light, in the two texts, one can find that the teacher's role is to encourage the students, in particular by assuring them there is a way to win the game.

If we now look at the way our collective dealt with this issue, we have to keep in mind the following points: First, Brousseau's and Schubauer-Leoni and coworkers' conceptions were well-known by the collective, given that their papers have been studied before implementing the teaching sequence, and discussed throughout the implementation process. From this viewpoint, the collective documentational genesis (Chapter 16) encompasses the elaboration of these texts, in relation to the actual implementation. The collective was thus sure that the teacher had to stand to the side, and leave the students to figure out how to solve the informational leap problem. One can notice that such a perspective is consistent with the roots of the theory of didactic situations (Brousseau, 1997) as it is usually understood. According to this theory, an essential purpose of the didactical process consists of enabling students to build a first-hand relationship to a given piece of knowledge. To reach that goal, the teacher has to monitor this process by making sure that the students experience the mathematical necessity (in this case, the power of public representations).

Nevertheless, at the end of the Stage 2, when the informational leap had to be realized in the classroom, a discussion unfolded in the collective about this issue, initiated by the teacher who has the responsibility to carry out the lesson. Indeed, the collective habit of this group was to anticipate as precisely as possible students' actual participation and the range of didactic behaviors that students might produce in the didactical situations. In doing so, the collective tried to identify a link between the milieu and the teacher's action, and the students' behaviors. When trying to fulfill this a priori analysis pattern, in the case of the session in which the informational leap was presented, the collective was not able to anticipate by what concrete means students would be able to figure out the necessity of using inscriptions. In this respect, it was the teacher's responsibility to manage the situation by improvising on the basis of the conceptual background that was at the root of the collective's work.

One can thus consider how the collective work on available resources (from Brousseau's team and Schubauer-Leoni's team) provides a specific strategic system that one can describe as follows: confronted with the inevitable failure of his students, the teacher had to let the students know that the game can be played with success (encourage the students by giving them the assurance they can win); she had to stand to the side to allow the students to experience the necessity of the inscription system (let them find they can make a list); she knew that she was going
to face uncertainty stemming from her ignorance of the students' possible moves to find a 'solution' (she is prepared to use any opportunity to guide the students' learning trajectory).

Let us now consider the actual implementation of this part of the situation, which means, according to our theoretical framework, how the system of these strategic rules is enacted in actual strategies.

### 3.2.2 Implementing Instructional Sequences Within a Collective: A Teacher's Rational Improvisation

This part of the instructional sequence has been videotaped and transcribed. Several months after the sequence was carried out, an auto-analysis interview was conducted between the teacher and another member of the research team.

The studied episode took place at the end of Stage 2. This session occurred in a workshop gathering five students. It was the first day of a two-day process, in three phases (Day 1: morning; Day 1: afternoon; Day 2: morning). In the following, we focus on one of the crucial moments of the Treasures Game, in describing how the joint action of the teacher and the students fosters the emergence of 'making a list.'

#### 3.2.2.1 Day 1: Morning

The teacher presented the 10 objects that had to be remembered for the afternoon. She handed the items in the bag (the equivalent of the 'treasure chest'), and stressed the goal of the game: the students had to remember, and 'each child will be on his own to remember all things this afternoon.' At the end of this episode, a significant dialogue takes place between a student (Ima) and the teacher:

Ima: You have to write down...

T: I have to write down what, my dear

Ima: (inaudible)

T: I have to write down all the children who did the Treasures Game? I have to write down all the objects? What do I have to write?

Ima: You have to write down (inaudible) of Treasures Game.

In fact, at this moment, Ima wanted the teacher to write down the list of the students who played the game on that day. This is a generic classroom habit, specified to the Treasures Game situations. In the classroom, it is important to write down who has done the activity, to know who hasn't.

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3 This part of the chapter has been written on the basis of data collected by two members of the collective, Dominique Forest and Anne Le Roux-Giaire. I would like to thank them. I am grateful to Dominique Forest for the fruitful discussions we had about the interpretation of these data.
So the teacher takes the list from a table near the students and points to the students’ names:

T: Ok, I know that’s you, the other ones will do it afterwards...

It is interesting to notice a kind of uncertainty in the teacher’s behavior. Ima referred to a list. Even though after the teacher understood that the list Ima was talking about was not the type of list she was waiting for, this behavior could be considered as an opportunity for the teacher to give the students an incentive to think about making a list, for instance, by revocing Ima’s proposal.

The teacher comments on this event as follows:

I know I’ll have trouble, finally I am afraid I find it hard to make them think about the written record. Oh, I know that, I know that because we talked a lot about it in the group, and I know that at a point the written record must appear, and I do not see how it will appear. I do not know what I was thinking then, but when Ima said ‘write down,’ then I said to myself there is something, something that I must keep under my sleeve, because the idea of writing record, if it does not emerge after, at this moment there are traces, which emerge now, traces I will be able to rely on.

We can understand how the teacher was able to reenact her intentions in the dialogue focused on her videotaped practice. It is possible to recognize the strategic system we mentioned above. In particular, she knew she must let the students ‘find by themselves’ that they can make a list. This is one of the core constituents of the strategic system elaborated within the collective (‘we talked a lot about in the group’). One may say that this strategic rule stems from the ‘thought style’ (Fleck, 1979) inherent in the work of this collective. There are some fundamental relations and properties that are impossible to challenge in a thought style, a kind of ‘bedrock’ (Wittgenstein, 1997), which turns ‘individual thought over to an automatic pilot’ (Douglas, 1987, p. 63). We argue that the ‘let the students find by themselves they can make a list’ strategic rule is such a core principle in the collective thought style. Nevertheless, it is worth noticing that this strategic rule is not easily converted to an actual strategy. As we put it above, it is in some ways contradictory to the habit of thought, elaborated in the collective, which consists of drawing a precise a priori analysis to anticipate the students’ learning behavior. This uncertainty is obvious in the teacher’s comments (‘I know that at a point the written record must appear, and I do not see how it will appear’), which seems to mirror Brousseau’s and Schubauer-Leoni and coworkers’ statements we quoted above. Thus, it is perfectly understandable that the teacher be tempted to use all the

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4 We argue that one can consider the educational process as the slow elaboration of a thought style (Sensevy et al., 2008).
opportunities she could find in the students' utterances, even though there is a risk of misunderstanding. The following part of the teacher's auto-analysis sheds light on this topic:

I think I try to bring out small things, because it can be reseeded, maybe there are seeds that are sowed there.

On the excerpt in which the teacher shows students the list of children: This is the list of children, but it's true, I do not present it without purpose. This is a sample of a list, which ... So there is an emergence of something, I thought, if it is difficult for them to achieve the written record, perhaps I will be able to build on it.

The interviewer asks: But you do not go any further at this time?

No, because it is not the right time, it's not the game. And here it is about a list, which describes the children who played the game, it is not at all the idea of a written trace, which keeps a permanent memory for later. In the list of children Ima refers to, we deal with a written trace, which allows us to validate: has each child played? So it's not at all the same approach.

In this excerpt, we can understand how the teacher's action (the teacher's game on the student's game, in the theoretical sense of the JATD) surrounding the 'question of the list' consists of reducing uncertainty by 'sowing seeds,' that is, by paying attention to the student's mention of the list of children, to be able to reuse this meaning later on. But it is interesting to note that this behavior does not entail a Jourdain effect (Brousseau, 1997). Indeed, the teacher explains that the strong conceptual difference between the two types of lists (the 'list of children' and the 'Treasures Game list') prevents her from relying too firmly on the student's designation of the list of children. One can acknowledge from the teacher's declaration how two fundamental aspects of the didactic game are at stake. First, the chronogenesis (the genesis of time) constraint (No, because it is not the right time, it's not the game) that explains that the teacher has to wait for the right time, the kairos, as the ancient Greeks said, to engage the classroom discussion on the issue of the list. Second, the mesogenesis constraint, which is closely linked to the chronogenetic one. In this episode, the mesogenesis (the genesis of milieu) necessity refers to the need, for the teacher, to introduce some specific meanings to create common ground and upon which she will be able to elaborate in order to help the students figure out how to produce a remembering process.

3.2.2.2 Day 1: Afternoon

The teacher asked each student to recall the names of objects, without success. Although some of them recalled more than others, nobody was able to recall the ten objects (carefully chosen, in kind and number.) The teacher asked the students to name and count the objects, and she made them acknowledge their failure. At a point in this session, the teacher insisted: 'I would like us to succeed, because we did

5 A Jourdain Effect occurs when the teacher pretends to acknowledge a specific piece of knowledge in an ordinary student's behavior.
not win'. It is important to note how the teacher emphasizes the students' failure, as an impossibility to retrieve the ten objects. But one has to identify, in the teacher's speech, the use of the pronoun 'we,' which means the teacher includes herself in the failure and the necessary subsequent research. For her, it is a way to deal with the difficult uncertainty students could feel. In doing so, she tries to enact the two main strategic rules in this part of the Treasures Game: (1) the students have to experience the limits of internal memory; (2) this failure must not alter their commitment in the enquiry. It is interesting to focus on a slight move, in the teacher's game, which occurred at the end of the session. Out of the blue, the teacher first intended to show the ten objects to the students, then she changed her mind: 'Well, I am going to show you the objects [the teacher takes the bag]. I intended to let you see, but before that, I would like us to succeed, cause we did not win.' To understand this point, the interviewer asks the teacher a question:

I: You said 'I am going to show you the objects' and you didn't do that . . .
T: No, because the problem is elsewhere, I would like to get it, I would like it to emerge, and I am afraid that, I tell myself that, by showing them the objects, they think 'oh, it's easy, I could have done it,' they could be in trouble. In fact, I want to leave them feeling the failure, I want to leave them telling themselves 'the hidden objects that I can't see yet, what is the representation I could give them.' In my opinion, it's the point.

During the following interactions, the teacher went on by underlining several times the reality of the failure, and its inescapability: 'you will not succeed, it's too difficult.' In the same time, she diffuses the idea of a possible solution: 'we should find a means.' She characterized this means as a 'little means,' thus signifying that every student had the possibility to find a solution. Even though the teacher tries to help the students, they do not provide a solution. One could identify a kind of fatigue among the students. So the teacher introduces in the milieu the 'meaning of writing' in the following way:

S1: And if you tell us?
T: Oh, me, I won't say anything.
S2: Ah, ah, ah, she tells us nothing because it's the Treasures Game.
T: Yes indeed you are playing, but Ima, what did she say she wanted to do in order to remember in the evening?
S3: Write!

The teacher gave a clear incentive, by focusing student's attention on Ima's word about the possibility of writing, and the students acknowledge this reminder. It is interesting to consider the teacher's analysis of these moves.

*Here I am cheating, I am cheating, because what Ima wanted to do in the morning was keep a trace of the students' participation in the game to be sure they have participated. On my side, it meant keep a memory to remember . . .*
The teacher critiques her own behavior, but after having emphasized again her recognition of the difference between the student's viewpoint and her own, she reconsiders her previous analysis:

After all, it's sure that the idea of a list, the idea of ticking the students' participation to be sure all the students have played, this idea is in the same spirit to keep a memory, it's what I reactivate here. Even though they do not have this anticipatory idea of keeping a trace as a representation to use it later on ... So, it's not really cheating, it's, umm, bridging the gap from my behavior to a behavior that they can adopt in their personal approach.

One can see this latter assertion as witnessing the complexity of the didactical practice. If one follows the teacher's justification, one can say that to reach her goal (enabling the students to refer to writing), the teacher admits a kind of minor misunderstanding of the nature of the remembering process. One can raise the hypothesis that to the extent to which the failure of the internal memory has been acknowledged by the students, the production of the 'solution' (writing) is not a major stake. The crucial point is that the students commit themselves to the writing process, given that the teacher's monitoring of this process will enable them to understand the very nature of the remembering process, and thus to correct the initial minor misunderstanding that will have allowed the joint process to proceed.

3.2.2.3 Day Two: Morning

The day after, after having reminded the students of their difficulty to retrieve the ten objects, the teacher reactivated the writing solution:

T: And I, I still wanted 10 objects, even though it was a lot. So, this evening, will it be easy to remember them?

S1: No!

T: No, so what could we do to remember this evening?

Ima: We write.

T: You, you would like to write, so you need a sheet of paper. So, go ahead (the teacher gives Ima a sheet of paper and a pencil), for me, it's alright.

T: But she does that for herself, OK. To remember on her own. You, if you want to remember you have to do something too?

S2: Yes, me, I want to write, too (the teacher gives him a sheet of paper and a pencil).

S3: Me too. It's that, we all are going to write down (the teacher gives a sheet of paper and a pencil to every student).

Eventually, the instructional sequence continued. The students started to produce some inscriptions as a means to remember the objects, and the Treasures Game proceeded.
3.3 Conclusion

In this chapter, we first focused on the issue of intentions, on the basis of Baxandall’s work. Within the framework of the JATD, we consider human practices as social games. In this respect, we argue that to understand people’s actions, we have to identify what we modelize as the game they play. Thus, people’s intentions are to be drawn from these games, and we consider intentional systems as strategic systems. In doing so, we highlighted a conception of intentions in which intentions are public, found in the milieu of the action. In that sense, an intention is more or less always collective, not necessarily in the sense that it stems from a collective, but in that it has to be viewed as the expression of an institutional thought style that stems from the social game at play. This thought style plays a prominent role in the orchestration process (Chapter 14) that teachers enact.

In the empirical study we outlined in this chapter, the teacher’s intentions were collective, in the first sense of the term that we acknowledge below. The teachers work in a particular institution, broadly speaking, a didactic institution, which brings them to a specific thought style. For example, a teacher has to enable the students to establish more or less a first-hand relationship to a given piece of knowledge, and one who wants to understand the dynamics of the teaching–learning process has to take this general feature into account when identifying the teacher’s intentions. In this chapter, the case study allows us to understand how the didactic intentions lie in the documents designed by the teachers and in the relationship the teacher has built with these documents.

The case at stake is interesting in that it shows the nature of the teacher’s intention, about the necessity, for the students, to experience the failure of internal memory, and the consequent adoption of a writing strategy. This system of intentions is not an individual’s system, but the result of a collective documentation work, which is based on the study of the previous versions of the Treasures Game. But in the texts presenting these previous versions, as we saw, not enough was said about the way of dealing with the necessity of the list, even though the researchers present this necessity as critical in the teaching process. In this respect, we have shown how the teacher’s strategic system, as a system of prior intentions, is designed to achieve her two-fold purpose (failure of internal memory, necessity of a writing strategy), by standing to the side. We argue that it is impossible to understand the joint action of the teacher and the students, in this classroom, without acknowledging this two-fold purpose, which is purpose of the collective. But taking into account this collective purpose is not sufficient. We try to show that it is necessary to document the way the teacher, against this common ground, puts in place actual strategies that concretize the strategic rules that monitor his behavior. To understand the concrete action of a teacher, even though it has been designed in a collective documentation work, one has to acknowledge the teacher’s ‘feel for the game’ (Bourdieu, 1990) that enables her to rationally improvise, and to reach the collective goals beyond the collective preparation. In this respect, teachers could be seen as ‘instructional designers’ (Chapter 17) to the extent to the results of their improvisation modify the research design.
In this perspective, a thought style, conceived of 'the readiness for directed perception and appropriate perception of what has been perceived' is a precious support for people's practices, but it does not provide people with all the 'solutions' of the practice. In this study, the classroom concretization of prior intentions, as a strategic system, rests on the teacher's capacities to enact a particular way of 'standing to the side' within the joint action. In the *Treasures Game* situation, as it was implemented here, we have to acknowledge that this enactment is not easy. It seems that a major reason for this difficulty could be the 'lack of inteniveness,' to use Baxandall's neologism, of the scientific texts the collective was using. The resources and documents embed purposefulness, but in some cases, not enough.

References


A. Mercier (Eds.), *Agir Ensemble. L’action didactique conjointe du professeur et des élèves dans la classe* (pp. 52–91). Rennes, France: PUR.


