This paper explores the symbolic representation of the teaching situation as a triangle involving teacher, student, and content. The paper explores what is meant by didactic communication, and then studies the meaning of the semiotic triangle in the light of two lines of research: the patterns used to analyze communication situations and ongoing research being conducted in the field of teacher thinking and teacher planning. The paper discusses the distinction between didactic and pedagogical communication, examines the forms of didactic communication, clarifies the distinction between didactic communication and didactic speech, and examines the parts played by each partner in the didactic communication contract. The paper distinguishes among three types of didactic communication, which vary according to context (pedagogical method chosen, age of students, communication contract, etc.): (1) the teacher as the only acting partner and the producer of messages; (2) verbal interaction between teacher and students with two sorts of content (content to be taught, for the teacher and content to be learned, for the student); and (3) mediation between student and content, as the teacher builds an interactional strategy that helps students give meaning to the content. The paper concludes that such complex realities cannot be explained simply by placing "content" as a third pole on the semiotic triangle. (Contains 25 references.) (JDD)
THE TRIANGLE OF COMMUNICATIVE "DIDACTIQUE"

Paper presented at
AERA ANNUAL MEETING
New-Orleans - April 1994

Session : The "Teacher/Content/Student" Semiotic Triangle
The Triangle of Communicative "Didactique"

The triangle is now frequently used as a figure symbolizing the teaching situation. Researchers find it attractive because it is a convenient polysemic representation of the relationships existing between the three poles which have been identified in this situation: teacher, student, content.

I propose to explore this symbolic representation to see if it remains relevant and fruitful when applied specifically to didactic communication and not to teaching/learning situations in general.

To start with, I intend to explore what is meant by didactic communication (a concept which is perhaps more adequate than that of "communicative didactique" originally used in the title of this presentation).

I will then study the meaning of the semiotic triangle, which is the subject of this symposium, in the light of two lines of research: firstly, the patterns used to analyze communication situations, secondly ongoing research being conducted in the field of teacher thinking and teacher planning.

1. Towards a definition of didactic communication

The definition of didactic communication is based on its content and its aim.
- It's a type of communication which functions around a particular object: a content to be taught, or possibly a skill, though the most common reference is to a content.
- Its aim is the transmission of this content.

Communication can be called didactic insofar as its acknowledged finality is the transmission of a content, in the same way as a document assumes a didactic status when it is used for teaching purposes.

This type of communication may take place outside educational institutions, provided the same object is pursued, but the present analysis is limited to the context of teaching.

The actors mentioned in this presentation are those generally present in any classroom: one teacher and several students.

This looks simple enough; however, the definition of didactic communication raises four questions:
- is there a distinction between didactic and pedagogical communication?
- what are the forms of didactic communication?
- what is the distinction between didactic communication and didactic speech?
- What are the parts played by each partner in the didactic communication contract?
1.1. Didactic or pedagogical communication?
Can a distinction be established between these two concepts?
Classroom communication includes both matters related to relationship within the group, discipline, etc., which might be called "pedagogical" elements, and also what strictly concerns the transmission of learning. Only the latter is referred to as "didactic" communication. This distinction is based on a possible definition of didactique in the French speaking world as a technique used for the communication of learning. If we want to study didactic communication as such, we should separate it from pedagogical elements, whereas they are intermingled in classroom communication. This separation is often difficult to achieve in field observation.

But if we take the teacher's standpoint, the distinction becomes clearer, since most pedagogical exchanges are improvised and are the result of on-the-spot decisions and interactions, as opposed to didactic communication which is generally pre-organized. The teacher's skill consists precisely in using or inventing techniques for the communication of learning, or at least in planning their use (Tochon & Druc, 1992).

However, if we accept this analysis, we may distinguish two stages in didactic communication as far as the teacher is concerned:
- the first one takes place outside the classroom, before the teaching situation, when the teacher plans his/her didactic process, with reference to a mental image of the classroom situation;
- the second one is based on teaching in action; didactic communication then consists of the realization of the teacher's original plan, adapted according to feedback from the class.

1.2. The forms of didactic communication
The most usual form of didactic communication is the oral one, but at least three written forms also exist:
- comments made by teachers when they mark pupils' books or students' papers. These are not restricted to assessment, but often consist in restatements or expansions concerning the object of learning. This is a furthering, in a delayed, individualized form, of didactic classroom communication.
- teaching aids produced by the teacher before or during class (graphics, transparencies, posters, diagrams or notes written on the blackboard). These are generally pre-planned and used by the teacher as speech supports.
- lesson plans, drawn up in greater or lesser detail, which work as memos or signposts as in any other previously organized form of speech. The part they play depends on the expertise of the teacher, on his capacity to improvise, on the complexity of the subject and on the teaching situation itself (the function of a lesson plan is obviously not the same in the case of a university lecture as in a primary school lesson).

1.3. Didactic communication / didactic speech
All that has been said before may suggest that the teacher is the main actor in didactic communication. Can we go so far as to infer that he or she is the only one entitled to produce didactic speech?
If one considers that the learning to be transmitted is held by the teacher, it seems natural that no one but he or she should produce didactic speech. However, shouldn't we explore the idea that student speech may also assume didactic status? This implies necessarily that the learner's pre-existing knowledge is taken into account and plays a role in the teaching strategy.
Some experiments also show that the teacher can give a didactic function to student speech. For instance, Bouchard (1993) studies speech interactions within a group of pupils who were given the task of producing a didactic text based on specific sections of several maths books. The resulting text was intended for other pupils of the same age-group. So the concept of didactic communication can either be considered as restricted to the teacher's didactic speech or can be understood as including all verbal exchanges in classroom communication, notably student speech, provided that they contribute to the transmission and acquisition of contents.

1.4. Status and part played by partners in the didactic contract
The situation described above is rather far from the traditional conception of teaching in which teacher and student have clearly separate functions manifested by distinct activities, as described in the following table (Charaudeau, 1993):

<table>
<thead>
<tr>
<th>TEACHER</th>
<th>FUNCTION</th>
<th>ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>teaching</td>
<td>-presents ) the object of learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-describes )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-analyzes )</td>
</tr>
<tr>
<td></td>
<td>assessment</td>
<td>-asks questions,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-formulates instructions</td>
</tr>
<tr>
<td></td>
<td>captivity</td>
<td>-makes the object of learning appear valuable,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-uses seductiveness and coercion,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-gives a dramatic turn to his speech</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STUDENT</th>
<th>FUNCTION</th>
<th>ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>learning</td>
<td>succeeds in assessments</td>
</tr>
<tr>
<td></td>
<td>showing interest (in the acquisition of learning)</td>
<td>-produces signs of interest in subjects taught,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-answers questions,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-responds to solicitations,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-asks for information,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-reproduces speech models</td>
</tr>
</tbody>
</table>
This conception determines, roughly speaking, the roles defined for each partner in the "communication contract" which operates in the classroom. This contract, most often an implicit one, clearly places the teacher in a managing position as regards classroom communication. He enjoys a preferential status as sender of messages, whereas the student's role is restricted to the largely passive one of a receiver whose energies are entirely devoted to understanding the teacher's messages, reproducing models and reacting to solicitations in a way expected by the teacher.

Yet, this type of contract has now become impossible to maintain in many schools, because it supposes that the function called "captivation" is of less importance than the other two, whereas it is often a prerequisite for students who find the idea of learning in school meaningless. For such students, it is necessary to draw up a new contract based on a different functioning of classroom communication.

2. The semiotic triangle and the diagrammatic representations of communication

After these attempts to clarify the idea of didactic communication, we can now see if it fits in with the triangular pattern, different from the other diagrams generally used to represent the communication process. In doing so, I shall try to separate the phase of classroom communication properly speaking, from the preceding phase of lesson-planning.

2.1. Linear representation: the information process

The diagrammatic representation of communication initially proposed by information theories or structural linguistics was not a triangle, but a line (diagram 1):

![Diagram 1](image)

It has often been demonstrated that this model is in fact a diagram relating to the information process and not that of communication. It supposes an asymmetrical relationship between the person who holds information and those who do not. It also presumes that the receiver, when represented by a group, is a homogeneous entity.

Now, the point is didactic communication cannot be reduced to a simple transmission of information between sender and receiver, for the obvious reason that we are not really talking about information to be transmitted to a group, but in fact about knowledge or learning to be acquired by each member of this group, heterogeneous by its very nature; in other words, each individual learner has to assimilate the body of knowledge to be acquired into his own particular cognitive system. In fact one of the criticisms that have
been levelled at the didactic triangle (Cornu & Vergnioux, 1992) is that it includes content as the third pole, whereas this is not on the same level as the other two. It represents an activity undertaken by the subjects and not a substance or object in itself.

However this diagram could be used to describe a still commonly held notion of didactic communication: the one which works predominantly with student or adult learners in a so-called ex-cathedra or traditional form of teaching. In this context, the teacher has indeed a transmitting function and the students have the role of receivers; the only real teacher/student exchanges occur in the monitoring of the reception. In this model, the teacher's main concern in the didactic situation is not helping the students to build up their knowledge through an interactive process but producing a high-quality message. So in both the lesson-planning stage and in the way these teachers address they audience, they pay particular attention to the encoding process, i.e. the way they put the content into words. For them, this is an essential condition for efficient didactic communication ("if I explain it properly, they'll understand and that way they'll learn").

This is also why this kind of communication relies heavily on a written support prepared beforehand and then transmitted orally by the teacher without allowing much room for the non-verbal. So this kind of support is not in fact a medium, it's an aid to oral expression for the person sending the message.

We might say that in this type of communication, if we refer to the semiotic triangle model, the only link is the one existing between teacher and content. At best the students are only taken into account in two ways:
- firstly during the lesson-planning stage, in the first encoding process designed to produce a written statement when the teacher adapts his vocabulary, syntax, exposition of arguments to the students' understanding capacities.

However, what is actually taken into account is not the real students but the teacher's mental image of them, particularly of the "core group" in his class (a sub-group of pupils, often the best achievers) as noted in a Swedish study in 1970 (quoted by Tochon, 1993): the production of the message takes into account the supposed conditions of the process of enunciation;
- secondly in the teaching situation, when the prepared speech has to be adapted to the actual conditions of reception (e.g. time limits) and to any possible feedback from the class (often, in fact, the core group who act as a reference). But these alterations due to feedback, between the prepared message and the actual enunciation, are generally limited, because for the receivers, the real process of decoding takes place after the lesson, when they work from the notes they have produced during the teaching situation (which supposes a written re-encoding of an oral message).

In this type of case, I don't think we can talk about didactic communication properly speaking, but only about didactic enunciation. Yes indeed, the teacher's main aim is to transmit a certain content but it is not to communicate. Can we even use the word "didactic"? For there to be knowledge, there has to be appropriation of that knowledge, otherwise we're talking about mere information. But in this model, the content to be taught is treated as information, the building up of knowledge on the student's side is supposed to take place outside the time of the didactic communication, and will often
need the assistance of other learning tools (textbooks). The teacher's sole concern in terms of didactic communication is linked to his own speech: "What am I going to say? How am I going to formulate it so that I present the subject most accurately (the teacher/content relationship) and most clearly (teacher/speech relationship)?"

What's important to note is that here the real student is hardly taken into account at all except as a justification for the existence of the teacher's speech. Ironically, the student is involved to a greater degree in the construction of the didactic speech during the lesson-planning stage, but only as a virtual audience, in the way the teacher imagines him/her (cf. Kerbrat-Orecchioni, 1990, p. 14:

"At the encoding stage, prior to any answer or even any reaction on the recipient's part, the latter is already inscribed in the sender's message, sometimes explicitly, always implicitly, insofar as the sender constantly takes into account the image he/she has built up of the recipients and the competence he attributes to them."

So in that case (represented by diagram 2) the students are not real partners in the didactic communication at all, though they are the recipients of the so-called didactic message.

![Diagram 2](image-url)
2.2. The triangle pattern: an adequate model for real interactional situations?

If we agree that the situation outlined above is an extreme case where the communication process is practically limited to an information process and that we should therefore reserve the term "communication" for those situations where there is real exchange and interaction, we can try and use the three poles of the triangle "T/C/S" to describe the process of didactic communication. In this model, we can obviously retain the first two poles of teacher and students since they really do correspond to the two partners in didactic communication. However, it has been seen that the concept of communication only applies if each pole alternately assumes the role of sender and receiver, and if there is interaction. The third pole of the semiotic triangle - the content - could then correspond to the "referent" which any message refers back to.

Didactic communication is perceived here as an exchange of messages between teacher and students with relation to content. But we already know that for communication to be possible, the referent has to be at least partially "shared" between both partners. We might then ask: in actual fact, is the content the referent being shared in the didactic communication process? Isn't it rather the educational context that takes on this status, as indeed is the case in many messages emitted in educational communication (those to do with teaching, assessment and orientation procedures, etc.)? The teacher/student exchanges are indeed about content, but referent and content must not be confused. In a communication situation, the referent is what gives the message its meaning for each partner. But obviously, in the classroom situation, the messages sent by each of the two partners do not always refer to the same content. The teacher's main aim is to take care of the content to be acquired by his/her students, whereas the students themselves are perhaps more preoccupied with their own difficulties in relation to other pupils, their physical discomfort, social unease or whatever. This explains the gap between the messages produced by each partner. If such is the case, can one really say they have content as a common referent? (Perrenoud, 1993).

Anyway, it's impossible for the content to be the same in both cases, since the functions of the content are different for the two partners in the communication process. For the teacher, the content to be taught is the result of the initial phase of didactic transposition, it is the referent of his/her didactic speech and is very real for him/her; the students' position is different: their referent is a content to be learnt which has as yet no reality for them and which will only become knowledge beyond the didactic situation at the end of the learning process. So we cannot talk about content as the common referent in communication exchanges between teacher and students. At the very most, they each refer to their own mental image of the content, which justifies them both being in the same classroom and engaged in a particular communication process (diagram 3).
2.2. Introducing mediation and meaning in the diagram

Can we find a more satisfactory third pole? Recent or current research in communication concentrates on three ideas: interaction, meaning and mediation. These three concepts were already present in Vygotsky, who shows that in didactic interaction there is a co-constructing of meaning, with the teacher acting as mediator between the learner and the content (Vygotsky, 1934).

This is an entirely different approach. Certain teachers try to organize their teaching along these lines, i.e. they try to see how they can best ensure a mediation between the learner and the content (cf. the process of "learning" in Houssaye's analysis of the Student/Content relationship in the pedagogical triangle (Houssaye, 1988, 1993). So how does didactic communication work in this type of case?

Definitely not in the same way as in the first case examined. It works much more in the form of interactions with the students but it also plays a different part in lesson planning. All the more so, in my opinion, because in their lesson-plans, teachers, with this kind of aim in mind, try to conceive a real teaching/learning strategy, taking into account the objective to be achieved as well as their students' competence. This strategy seems to me to constitute the mediation which enables real didactic communication to take place.

Indeed, if this strategy tries to take into account the diversity of students and to allow for differentiated strategies, it means that it concentrates much less on the content to be taught than on the situation which must be created to ensure the appropriation of this content by each student. The teacher is going to attach much more importance to the conditions in which the didactic situation will have to work, notably to those which allow the development of communication between all senders/receivers: within the student
group, as well as between teacher and full group, teacher and sub-group or teacher and one student (diagram 4).

![Diagram 4](image)

Teacher

Group

Student

Communication interactions

Diagram 4

This is indeed the condition necessary for each student to feel concerned by the content and to cooperate with the teacher in order to appropriate it (diagram 5).

![Diagram 5](image)

Didactic interaction from the learner's point of view

Diagram 5

On the teacher's side this communication will therefore include moments of didactic speech in the sense already mentioned (presentation of ideas, explanations, syntheses etc.), but it will also include all the working directives, a description of the tasks to be realized, explanations necessary during the course of the exercise. Didactic communication is thus taken in a much wider sense in this kind of model, because although the teacher's interventions may not have any direct bearing on the content, they help the students to construe this content for themselves. The student or the group also participate in this communication and thus in the didactic process.

Research done on teacher thinking (Charlier, 1989; Tochon, 1993) shows that communication itself is not really planned from a verbal point of view, since the
discourse is construed during the actual interaction. On the other hand, two new aspects crop up at the lesson planning stage:
- the search for an organization of space and time and for didactic material enabling constructive exchanges. This is only possible if the teacher has previous detailed knowledge of the students' real capacities and behaviour in class, as opposed to a mental image of an ideal reference group;
- work on the content to be taught still remains essential, but it will lead to drawing up a concept map rather than to the writing of a whole didactic speech.

Thus in this type of situation, didactic communication builds up much more in the classroom situation than in lesson-planning. The teacher's "communicative competence" defined by Hymes (1984) or Sinclair (1987) as "the group of verbal and non-verbal techniques put into action to ensure the success of the communication", plays a decisive role in the achievement of the teaching process.

We have seen that if we take the triangle as a model for an analysis of didactic communication, we come up against the problem of the teaching situation being more complex than the triangular relationship between teacher/student/content allows for. Several types of variables interact within this situation in a context which is both institutional (a point which has not been discussed here) and organisational, as in any other type of communication situation.

The term of mediation itself that we have introduced can give rise to interpretations extending beyond the teaching context. In any case, its importance must not be underestimated, either because it has a purely didactic function through the strategy set up by the teacher to help the student in his/her appropriation of learning, or in a larger sociological sense of the word, as the way through which the student constructs his/her social identity by the acquisition of learning (Habermas, 1981; Houssaye, 1988; Meirieu, 1991; Lamizet, 1992).

CONCLUSION

My research started as a tentative reassessment of the semiotic triangle from the point of view of communication. I hope it has shown the extensive part played by communication in the field of didactics. It has become commonplace to say that a teacher has to be a good communicator. My intention here was to explore what the term meant when applied to a didactic situation and also to show the way communication intervened in the semiotic triangle.

We saw that according to context (pedagogical method chosen, age of students, communication contract, etc.), a teacher does not produce the same type of didactic communication. We have distinguished three cases:
- The first one is when the teacher, practically the only acting partner, in which case the concept of communication, in the sense of exchange, becomes irrelevant. What the teacher plans - by a combined use of his/her capacities as a holder of learning and as a producer of messages - is his/her speech. This speech might be called didactic because it directly refers to the content to be taught, but in fact the teacher lets the students build up their own knowledge afterwards from that speech.
The second case is when the teacher rather conceives the didactic situation as a verbal interaction between him/her and the students. Then the two partners play a role in didactic communication, but the status of the content is not really different from what it was in the preceding situation. Teacher's and students' messages refer to two sorts of content (content to be taught for the teacher and for the students, content to be learnt) which can neither have the same reality nor the same meaning.

The third case is when the teacher conceives didactic communication as a real mediation between student and content. Planning then becomes essential because it's during that phase that the teacher will build up an interactional strategy, which will make it possible for students to give meaning to the content. However this strategy will be largely adapted through improvisation to regulate the various interactions in classroom communication. It's certainly the best way for content to be progressively integrated in each student's own representations.

It's clear that we cannot explain such complex realities simply by placing "content" as a third pole next to "teacher" and "student" as in the semiotic triangle. I am fully aware that the three theoretical models I have distinguished hardly ever exist as such in real classroom situation, but they can be helpful in showing how important it is for a teacher to be not only a "reflective practitioner" (Schön, 1983, 1987), but also a reflective communicator or mediator.
REFERENCES


