

## CUISENAIRE RODS IN THE LANGUAGE CLASSROOM

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*I use them for the negotiating game, and for simple things like prepositions of position, but otherwise I'm never really sure what to do with them. S.*

*I use them as much as I can, but especially for teaching tenses. M.*

*I learned a lot of exercises to do with them at the workshop, but I've forgotten them since. T.*

*I suppose they must be pretty good when you've got a long course, but you can't use them once or twice - they seem too much like a gimmick. C.*

*I don't feel confident about using them with a group of forty year old bankers. J.*

*I don't use them. It's not a method I would take to if I was a student. Students want to learn languages, not play around with coloured blocks. A.*

Cuisenaire rods come in boxes like a building set. A box contains 10 different sizes of rod. The smallest ones are 1 cm cubes: the others are 2, 3, 4, 5, 6, 7, 8, 9 and 10 cm long, but are all 1 cm<sup>2</sup> in cross-section. The rods are normally made of wood (real or artificial). Each size of rod is a different, bright colour.

Naturally the rods can be used to build simple models; not as realistically as Lego, since they do not snap together and you cannot buy motors and little people to go with them. Their attraction as building blocks lies in their simplicity, and therefore in the space they leave to one's imagination.

But this is not an article about playing at building blocks. The rods have been used for many years to teach with. They were invented for teaching children arithmetic, and many books have been written about ingenious ways of teaching maths with them. The rods have also been used for teaching languages.

The idea originated with the fascinating character Caleb GATTEGNO, a fringe pedagogue whose use of the Cuisenaire rods formed part of the "*Silent Way*" method of teaching languages. An original and quite controversial theory of learning was behind this methodology. GATTEGNO complained that all the "new" methods for teaching languages (in the 1950s and 1960s) only changed what the teacher did in the classroom, not what the learner did, which was more important. GATTEGNO posited that people should learn languages as if they were babies, "*surrendering*" to the language. The teacher should intervene as little as possible, their personality should be eliminated from the equation (neither praise nor criticism should be used), and ideally the teacher should

not talk at all, but stick to mime and gesture. Cuisenaire rods were one of the most important tools to be used with this methodology.

The use of Cuisenaire rods in language teaching has travelled round the world in the English as a Foreign Language teaching industry, being seen by some as a panacea and by others as a passing fad. It has become an oral tradition, because little has been written about how to use the rods to teach English. The vast majority of rod users pick and choose exercises or methods taken from the *Silent Way* or invented by themselves, without adhering in general to Gattegno's philosophy or theories of learning (and without keeping their mouths shut). Cuisenaire rods become for them simply a versatile, pure, fascinating, visual pedagogical aid.

The rods seem to have reached certain parts of the EFL industry but not others. The language schools of Paris, Tokyo, Brazil or the Lebanon, working with successful businessmen or unsuccessful school students may use the rods. Spanish-speaking immigrants learning English in the USA are unlikely to see them. In the public sector in Europe (IUT or university and so on), they are very little used, perhaps because their playful appearance shocks teacher or student; perhaps because they are considered more suitable for private lessons or very small groups; perhaps simply because their potential is unknown. In in-company teaching of languages other than English, they are also extremely rare in France.

In this article I hope to give a structured survey of possible uses of these rods, based on my experience using them both in companies (recently in the Banque de France and Warburg Securities SA) with small groups of adult learners at various levels, and with young adults in larger groups (BTS immobilier, Licence, Maltrise), and on the experience of my colleagues at Transfer Formation Conseil in Paris.

#### WHAT'S THE ATTRACTION ?

In a world where interactive learning tends to mean CD-ROM's, videos, computers with microphones attached and other multimedia devices, why go "back" to a set of coloured building blocks ? From the practical point of view, they are easy to transport, very versatile, not subject to technical gremlins, and can replace a lot of posters, blackboard drawing or overhead projector transparencies.

From the pedagogical point of view, the simplicity of the rods is part of their attraction. Their simplicity takes away a lot of the sensory "noise" on the channel and allows to concentrate on the language being acquired (this was GATTEGNO's aim). They are also very visual and tactile, and this type of sense-input is particularly useful for certain learners, whose memory is more easily stimulated by sight/colour and touch.

Furthermore, the connotations of play can be a positive element. There is something childlike about being a language learner; and one could argue like GATTEGNO that the learner has to become vulnerable (to feeling or sounding stupid or infantile) in order to learn quickly. Play is about not being over-careful, not being over-critical, and is about appropriating the environment for one's own uses.

## THE SILENCE OF THE RODS

If GATTEGNO's "Silent way" went to the extreme on this, the silence of the rods is still part of their attraction. That is, simple rod movements can replace long instructions to students.

The simple replacing of a rod with another of the same colour in the same position in the sentence (the sentence being represented by a row of rods in front of the teacher) is equivalent to an instruction such as *"You, Pierre-Henri, please give me another example of the structure we have just learned, but with a different verb in place of the one Marie-Chantal used."*

Reducing instruction language to a minimum in this way helps to focus the maximum amount of attention on the structure being learned. It also allows drilling to be much more interesting because it is faster, and it allows the drilling to be varied very simply (by swapping another rod).

I am going to explain the use of the rods by classifying their uses according to what they can represent or symbolize. So my article will be divided into several sections: the rod as representing a sound, an element of syntax, a real object, a building block, a paintbrush, and the rod as rod (or not representing anything outside itself). For each section I will give two or three examples of exercises or lessons which might be taught, but the main aim is to explain the dynamic behind their use, so as to allow the reader to invent his or her personal plethora of uses.

## THE ROD AS SOUND

The rod can be used to represent a phoneme. With a word that is difficult to pronounce, this can be used then as a visual aid, to treat each sound separately. Pointing at each rod in turn to check the sounds can be pronounced separately, then moving them together to elicit the whole pronunciation. This way of correcting leaves the maximum amount of time for the student to speak and thus be actively involved in the learning process. The teacher does not (except as a last resort) give the correct pronunciation, but simply shows where in the word the mistake has been made, allowing the student or a classmate to correct. This method can be used for any words difficult to pronounce. I have used it recently for "generalist", "tenacious, and "delayed".

Otherwise, the rod can represent a syllable. So, for example, the teacher can place two rods in a row to show that there are two syllables in the word "varied" but three in "various".

A small rod placed on top of one of the "syllables" can represent the word stress. Moving the small rod will change the word stress. So we can easily show visually, for example, at upper-intermediate level, what happens when the verbs *"refund, increase, record, take off, take up"* become the nouns *"refund, increase, record, take-off, take-up"*. The visual demonstration focuses the attention of the students, and emphasises the regularity of the process. Showing how the stress moves on *"photograph", "photographic", "photography"* would be another example.

The simplicity of the rods allows immediate drilling. If a student pronounces "*photography*" with the stress on the second instead of the third syllable, it is easy to show him/her what s/he is saying and what s/he should be saying, and get him/her to repeat both pronunciations to make him/her aware of the difference. The instructions for such repetitions can be made by simple gestures (moving rods) as soon as the students have understood the conventions.

To teach or practise weak forms, a sentence can be represented with a rod for each word, with small white rods for those words which are pronounced weakly, so that for example, the sentence "*The boss could have decided not to let them go for the moment*" would have seven little white blocks out of the thirteen used to represent the sentence.

Having the sentence in front of the teacher "*spelt out*" in rods makes it very easy to show what happens when we need to emphasize one of the segments. Taking away one little white rod and replacing with a longer rod, we see what happens when we need to say "*The boss could have decided...*" (but we are not sure) or "*The boss could have decided not to let them go for the moment*" (as opposed to anyone else).

To encourage the use of contractions, the rods work well. Putting out five rods for "*They should not have done that*", and showing by moving the rods closer together where the contractions come: "*he shouldn't have done*" or "*he shouldn't've done*". Showing liaison sounds between words can be done in the same way "*The economy's on the up and up*".

If the students are manipulating the rods, this allows many more variations. Try playing them the first few sentences of the news headlines from the radio, or of the dialogue or speech on your classbook tape. Ask them to represent it in rods on the table, with small white rods for all the unstressed words, or showing the liaisons or the contractions.

## THE ROD AS AN ELEMENT OF SYNTAX

The rods can represent words within syntactic structures. By lining up the rods for the words "*He said he would do it*" and "*He told us he would do it*", the additional rod for "*us*". shows in a very visual manner that there is normally an extra element of syntax - the person addressed - when we use the verb "*tell*" as opposed to the verb "*say*". By replacing the rod for the word "*us*" with another identical one, then another, then another, we can rapidly drill "*he told them/ him/ the prime minister/us/ you/Catherine*". But as soon as we remove this rod for the person addressed, we are obliged also to change the rod for the word "*tell*" with another verb like "*say*". More complex structures with "*suggests*", "*recommend*", "*would rather*" and "*would prefer*" are easy to deal with in this way.

In general, parallel structures are clearly illustrated with the rods. To show that the verbs promise/ refuse/ forget etc. are followed by the infinitive, whereas deny/ enjoy etc. are followed by the -ing form, the placing of rods is quite suitable. Once we have the two structures down on the table, picking out another "verb rod" and announcing the name of the verb (say "*threatens*") we can ask students which of the structures it goes into.

At a higher level, I use the rods to explain the difference between *"I told you yesterday"* and *"I did tell you yesterday"*. A little rod manipulation allows to show that this difference is the same as the difference between *"I can help him"* and *"I can help him"*.

In general, the rods allow illustration of regularity in language. Most of the simpler "transformations": passive structure, continuous tenses, WH questions, negative formation, separable and inseparable phrasal verbs... are very easily illustrated with rods, either for revision or presentation purposes.

Some teachers like to use the different colours in the rods to represent different parts of speech: always green for verbs, white for prepositions, red for auxiliaries, brown for adjectives, black for present participle, etc., keeping the same colour scheme for the whole lesson or even for the whole course. This involves using colour memory as a supplement to other sorts of memory. One teacher of French has added a variation and prints out worksheets on her colour printer with the words of the sentence each appearing inside a block of colour which is the same colour as the rod used to symbolize it in class.

Another practical tip for the classroom, once the students are accustomed to the presence of the rods, is to blu-tac them to the white board, and write the words of the structure being taught underneath.

#### THE ROD AS BUILDING BLOCK

Seeing that the rods look like building blocks, why not use them as such ? Here is an exercise which teaches the giving of instructions, and the describing of positions.

First pre-teach or revise prepositions of position. Then build a small model with rods. Any model will do, not too simple, not too complicated. A square made of long rods of different colours, with three or four other rods placed on it, horizontally or vertically, and a few little rods scattered in the centre, is the sort of model I normally use.

Explain then that students have to give you instructions to help you build another model, identical to the first. Follow their instructions (being of course, quite bloody-minded, and taking everything *au pied de la lettre*) They will have to produce language such as *"Put an orange rod parallel to..."*, *"No, not that corner, the top right hand corner"* and so on, until the model is built.

Students using the rods lead to more variations and extensions. When they have succeeded in getting you to build an identical model, you can go over some of the mistakes in English they made. Then they can divide into groups or pairs, make models which they hide behind books and give instructions in English to their partner(s). They should do this "blind" so they cannot see the work in progress.

There are many variations and extensions on this. The instructions could be written down and the "original" model destroyed. When the imitators have followed the instructions and built a supposedly identical model, the first group can write a *"letter of complaint"* to the *"building company"* to point out its imperfections. *"We were most surprised to find that the blue rod was not placed parallel to the yellow one, despite*

*specific instructions we gave to that effect".* Depending on the level of the students other extensions can be used. For technical students, you can explain that whenever, say, blue rods touch yellow rods there is a danger of rapid corrosion, and they could write a safety report recommending changes in the design of the "*building*", in the style that safety reports are written.

If the students' English is not yet up to inventing instructions, give them the rods in small groups, and get them to follow your instructions for building a model (given live or on cassette). When the groups have finished they can compare models and if there is a difference, listen to the instructions again to see who was right. Variations on the listening exercise would include listening to a description, on tape, of a model and noticing the mistakes made in the description. The students then have to report back "*The cassette said the rods were parallel but they're not, they're perpendicular, and the red rod is lying down, it's not standing up.*"

### THE ROD AS PAINTBRUSH

In everyday life we use many forms of graphic or symbolic structures to communicate information. Clocks, calendars, organigrams, flowcharts, graphs, tables, thermometers, circuit diagrams, building plans, metro maps, and many other everyday communication aids transmit much more than the language which appears on them. It is very easy to elicit present or practice vocabulary and structures connected with different areas of activity by representing the above items using Cuisenaire rods.

Teaching English to physicists, it is enough to build a circuit diagram with rods to elicit a large amount of vocabulary and structures ("*What have I done ?*" "*You've **broken the circuit**/ increased the resistance/ taken out the capacitor...*"). This method is more flexible than a poster or a whiteboard diagram.

With business students, I build up in rods the organigramme of the company I work for, presenting such vocabulary as department/branch /head/supervisor/ senior manager/board of directors/ subsidiary/parent company...and such structures as responsible to/deals with/ reports to. I introduce some of the rods: "This is Mr. Jenkins, he's the head of department. He's always away on business trips...". At the end of my explanation I have the organigramme on the table, and can check if the students have absorbed the vocabulary and structures. ("*Who is this ? Who does he report to ?*" pointing to one of the rods). The next stage is of course, with professional students, to give them the rods and get them to use the language to present their company. With students who have professional experience or who are studying management, a discussion class can be run about different principles of organisation of a company: hierarchy, channels of communication, "*delaying*", and so on.

At a lower level, build up a plan of your home (or office or laboratory) in rods. ("*There's a filing cabinet, two computer terminals with a swivel chair at each*" or "*Technical manuals go on this bookshelf, back-up computer cartridges in the top drawer*"). The students will enjoy building up and describing (or dictating to a partner) the layout of their own living room or office, laboratory, factory or building site or hotel, and you have a revision lesson which will engage their imagination.

There is no real limit to the types of graphic representation that can be reproduced in rods and therefore used to present, elicit or practice the vocabulary and expressions of a specific situation. I have used them to represent a clock face, a cheque (*"Where do I put my signature ?" "In the bottom right-hand corner, underneath the amount"*) and a calendar. (*"What will you be doing this time next month ?"*, etc.)

#### THE ROD AS SYMBOLIC OBJECT

Similar, but not quite the same, is the use of the rod as a symbolic object... or a paintbrush to paint in three dimensions something vaguely representing an object in the real world.

When I want to teach the use of the present perfect for past experience, I place two vertical rods not far from each other on the desk, and ask students to guess what they represent. Eventually, someone will guess the World Trade Centre or *"that big building in New York"*. Yes, I confirm, and ask a few students "Have you ever been to New York A, eventually getting the answer *"Yes, I have"* or *"No, I haven't"*. I follow this up with a couple more symbolic places (The leaning tower of Pisa, Red Square, the Sahara desert (simply a flat square made up of yellow rods). Then I ask some students to create symbolic places with the rods, and ask around *"Have you ever been to. . ."*

When students have absorbed this structure, I can move on to other verbs. Using the rods to symbolize activities (skis, a wall ...). I will ask *"Have you ever been skiing / Have you ever built a wall?"* When the students have absorbed the structure, we move on to the difference between *"I've never been to Moscow"* and *"When I went to New York, I didn't go up the World Trade Centre"*, i.e. the difference between the past simple and the present perfect.

#### THE ROD AS ROD

The rods do not have to represent anything at all. For grammar teaching, they can be used as an *"empty"* or dummy object, to focus attention on the grammar structure.

To teach comparatives is simple. (*"The red rod is twice as long as the white one"*). To practice more complex adjectives, I make two "modern sculptures" on my desk, one very regular in one colour, and one an anarchic pile of multicoloured rods. Students rapidly provide *"the blue sculpture is more classical/ more beautiful/more difficult to make than the multicoloured one"*. They have even been known to explore interesting aspects of language formation. One of my students provided *"The blue sculpture is more Mitterrand than the multicoloured one"* making reference to the geometric style of Mitterrand's grands travaux, and allowing me to do an aside on how easy it is to create new adjectives in English.

Add a third rod or sculpture-and you have a perfect support for superlatives.

A little suspension of disbelief allows rods as rods to be used in a hundred more contexts for revision or practice of language learned. The shopkeeper can sell rods to the customer, having written a price list. (*"I'm sorry, I'm afraid we don't have any green ones in stock. Can I order one for you ?"*). One group of students can write a business

letter ordering a series of rods of different colours or sizes, asking if they are in stock, and what the prices are. Another group can reply to the letter promising delivery. After the delivery, there might be more business letters complaining that the packaging was unsafe or the shade of blue was wrong, or the number of items was not quite correct, or asking for a discount on further orders.

A well-known exercise among Cuisenaire enthusiasts is the negotiation game. Teams of three to five students are each given a selection of rods, and a sheet of paper giving point values for each colour of rod, which show how much that colour is worth to them. The other team has a different set of rods and a different set of values. The teams do not show each other the value sheets, but proceed to negotiate the exchange of rods, simulating in this way a business negotiation. This allows the practice of the language of negotiation (*"We would be able to let you have two green rods in exchange for a blue one, though frankly we would prefer to keep one of our green rods..."*).

Any or all of these exchanges can happen "by telephone", and be recorded on tape for error correction later.

#### DISADVANTAGES AND RESISTANCE ?

The rods have some disadvantages. They can be rather small and fiddly to use for large groups, especially if your students are on chairs or desks in rows facing you. Another difficulty is initial resistance.

Some teachers and some students show resistance to the use of the rods. From the teachers' point of view, they have all the risks involved with using new methods: they have to work. What's more, if they do not, you are kind of stuck. No possibility of unobtrusively slipping in *"Now turn to page thirteen and do the grammar exercise"* with nobody noticing.

And because they are obviously new and different for the students, they have to work at least as well as traditional methods in order to be accepted. If you use a traditional grammar exercise with your students and it does not work, they do not learn anything, they will probably think it is their own fault. If you do a Cuisenaire rod exercise which does not work, they will be more likely to comment that *"Instead of teaching us English, the teacher just spent his time playing with building blocks!"*

Of course, for it to work, you have to believe it will work, so it is good to try it out at home first. The students may show resistance because the rods appear to be for children. Adolescents in particular are very sensitive to being treated like children. It is often an advantage, from this point of view, to introduce the rods very early on in the course, while students are still getting used to your way of teaching. I have had no problem using them with worldly-wise executives in finance companies, but it has been easier if the rods were present from the first lesson.

In general, once students see that the rods do help the lesson along, they accept them very easily, and hardly find them strange afterwards. Imagine using a blackboard with a group who had never seen one - it would take time for them to adapt.

Even so, with groups who are resistant to being imaginative, it can be better to leave some of the wilder exercises - the most playful ones - to a stage in the course where the students have already been won over to the idea of the rods, and stick with more prosaic exercises to start.

#### A SUMMARY OF THE ADVANTAGES

In such a short article it is only possible to give a few indications as to how the rods can be used in a language classroom. Nevertheless, I think the classification I have outlined above permits the generation of most of the types of exercise which can be done with the rods. To summarize their potential, I would say

- \* that they allow rapid improvisations of visual aids for teaching. This means they can be used to help teach words or structures *which "just come up"* in the lessons, and do not require previously prepared materials. This means they give more potential for spontaneous teaching;

- \* they allow easy and varied repetition. I feel we often try to teach too rapidly and do not allow enough repetition and thinking time for our students. Yet identical repetition, in chorus, or round the classroom, is boring. Rod work can help avoid these two pitfalls;

- \* they allow to reduce "teacher noise" on the communication channel with the students, by increasing the reliance on gesture and symbol. This is particularly useful for drilling purposes;

- \* at lower levels, the use of more gesture in instruction and demonstration allow to reduce the amount of French spoken in the classroom by the teacher - another "noise reduction" tactic;

- \* their simplicity and the fact that they are so easy to transport make it very easy to repeat exercises. If I have taught the contrast *between "I'm giving her a rod" and "I've given her a rod"* in one lesson, I can easily begin the next lesson with a very rapid revision, simply by repeating the gesture with the rod, but much more quickly than when I was teaching;

- \* the connotations of play, the brightness of the colour and the adaptability of the rods allow student imagination to be engaged easily.

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## BIBLIOGRAPHY

CUISENAIRE Georges and GATTEGNO Caleb, *Numbers in Colour*, 1954 (an introduction to teaching mathematics with rods).

GATTEGNO Caleb, *Words in Colour*, 1962 (an approach to teaching reading and writing to primary school native speakers with rods).

BERRINGTON DAVIES David (ed.), *Working on Awareness for Teaching andfor Research on Teaching* (transcript of a seminar by Caleb GATTEGNO). Bristol, Abon Language School, 1989.

BERRINGTON DAVIES David (ed.), *Can I be Creative ?* (transcript of a seminar by Caleb GATTEGNO). Bristol, Abon Language School, 1990.