

Arts, Linguistics, Literature and Language Research Journal

EXPERIENCES ABOUT MULTILITERACY

Leonor Scliar-Cabral

PhD, UFSC, *Prof. Emeritus* and Postdoc at
the University of Montreal.

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



INTRODUCTION

The Symposium “Neuroscience applied to early literacy: experience reports” set out to expose and debate the narratives arising from the most recent applications of the Scliar Early Literacy System, with an emphasis on the Brazilian northeast. As widely publicized, in the 2016 National Early Literacy Assessment (ANA) (INEP, 2017), 2,160,601 students were evaluated at the end of the 3rd year of the Early Literacy Cycle, in Brazilian public schools, in reading and writing, of which only **12.99%** reached the desirable level (4) in reading and only **8.28%** reached the desirable level (5) in writing. It must be noted that Sergipe was the state that presented the worst performance in reading and Alagoas, the worst in writing. This alerted us to the need to seek recent references in the language sciences, in new methodologies and in adequate pedagogical material, which would support the continuing education of early literacy teachers, based on successful experiences, such as that of Lagarto, in 2017, when almost all of the 70 children from three classes, at the end of the 1st year of primary schools, located on the periphery, they became fluent and with a taste for reading.

As the author of the Scliar Early Literacy System (SCLiar-CABRAL, 2013, 2014, 2018a, b), which intends to apply the most recent findings of cutting-edge sciences that deal with verbal language, both with regard to its structure and functioning, regarding its acquisition and learning, that is, Linguistics, Psycholinguistics, Neuropsychology and Neuroscience to eradicate functional illiteracy in Brazil, I used, as a tripod, the continuing education of educators involved in the early literacy process, the methodology based on the contributions of the human and biological sciences and the elaboration of pedagogical material consistent with such contributions.

The educators’ continuing education

involved several courses, among which I highlight the Distance Extension Course: Scliar Early Literacy System (SSA), 1st module, coordinated by Dr. Ana Cláudia de Souza, sponsored by the Graduate Program in Linguistics, of the Department of Vernacular Language and Literature (DLLV), which are part of the Center for Communication and Expression (CCE) belonging to “Universidade Federal de Santa Catarina”. The videos were made available on YouTube.

Among the various courses taught via SKYPE, it is worth highlighting those being given in Lagarto (SE), with full support from SEMED.

José Humberto dos Santos Santana, employee of the Municipal Department of Social Development and Labor in Lagarto, student of the SSA distance course, in 2017, obtained full support from SEMED in Lagarto to train the teachers’ team and educational advisors, including Professors Jaqueline da Silva Nascimento and Patrícia Vieira Barbosa Faria; he started the training, according to the teachings received during the distance course, the theoretical basis (SCLiar-CABRAL, 2013) and the instructions for applying each Unit of the Scripts, sent via *Internet* before its publication in a book (SCLiar-CABRAL, 2018a, b). Seventy children received “*Aventuras de Vivi*” (Scliar-Cabral, 2014), a book that, with the replicated pages of the *Scripts Attachments*, constitutes the child’s pedagogical material. In July 2017, Humberto Santana withdrew from the project and I began to guide the educators’ team every two weeks, via SKYPE. At the end of November 2017, at the Secretary of Education, Maria Vanda Monteiro’s invitation, I was in Lagarto to meet the children, family members, educators, SEMED and Mayor José Valmir Monteiro, whose support was decisive for the project success : the children were reading with fluency and understanding, the recognized

parents and grandparents hugged me!

So, in 2018, SEMED in Lagarto extended the SSA application, serving another 430 children in the 1st year and continuing early literacy training for writing for 70 children in the 2nd year. I continue to give biweekly training, via the Zoom platform, then for 19 educators in the 1st year and for the 5 who assisted the 70 children in the 2nd year.

The theme of this article, “experiences on multiliteracy”, was motivated by the following: the SSA has as one of its assumptions, Integrated Education, which means, among other things, that the development of reading comprehension does not apply only to the texts of Portuguese language, but also to the texts of other disciplines, in this case, mathematics (CENTURIÓN; LA SCALA; RODRIGUES, 2014) and human and natural sciences (MENDES; ARTACHO; JAKIEVICIUS; GIANANTI, 2014), the books adopted by SEMED from Lagarto. I noticed that the authors, in an attempt to introduce other codes, do it in an inoperative way, because they lack the most elementary notions about the nature of signs and how different codes are processed, as well as because we can only understand a sign, in its context of use. I then proceed to examine essential notions, a prerequisite for anyone working with multiliteracy.

HUMAN COMMUNICATION AND THE NATURE OF SIGNS

For the text understanding and interpretation (CENTURIÓN; LA SCALA; RODRIGUES, 2014, p. 14) and consequent proposed activities execution, it is necessary to review the concepts of communication through languages and those of some communication systems used by man.

The first issue that arises is that the human species is the only one that uses signs systems to communicate (although it also uses signals,

like other species, that is, systems based on stimulus-response, such as, for example, when someone steps on your toes, you feel pain and immediately scream).

Some of signs characteristics, which it is important for us to know, is that they are in place of something to represent it, that is, they are not the thing itself. When I say the word /meza/ → <mesa> (‘table’, in English), for example, it has the basic meaning of furniture that has a top, supported by one or more feet and can refer to any table that existed or will exist. One of the properties of such signs is that they are made up of two faces, one, that of the signified, which we have just exemplified, with “furniture that has a top, supported by one or more feet” and another, called the signifier, which is the way such meaning is fixed in our memory. In the above example, in oral language, the form is the succession of phonemes /meza/ (here transcribed using written symbols from the International Phonetic Alphabet); in written language, the signifier is the succession of graphemes < mesa >. The signifiers are conventional and arbitrary, that is, there is nothing in the succession of phonemes in /meza/ that resembles the shape of a table, but any member of the Portuguese language community, when they want to refer to the meaning “furniture that has a top, supported by one or more feet”, will use the word /meza/ and will be understood by his peers.

The channel universally used by the human species to communicate orally is the **audio-vocal channel**. This means that, in order to understand what people say to us, the **sounds** that make the **phonemes** (**signifier of an acoustic nature**) first reach the receptors in the **auditory canal** to undergo successive bottom-up processing in which the information is transformed until the message is reached. To produce, the path is reversed (top-down processing) and ends with the **execution** of

speech sounds, using the **vocal apparatus**.

When the individual is private of hearing, whether innately or in the language acquisition phase, he/she will not be able to use the auditory canal and, consequently, because without *feedback*, he/she will not use the vocal canal (albeit intact). Since the human species can use signifiers of a different nature to carry them out, when the individual is deprived of processing signifiers on an acoustic basis, the latter is replaced by the visual basis and, consequently, in production, the channel used is not the vocal but the manual, in relation to the body itself. Therefore, the deaf person's form of communication is **visual-manual**.

:A blind person does not communicate with his hands: he/she uses the **audio-vocal** channel!

The writing system, a late **invention**, is secondary to oral verbal communication. Being alphabetic, as in the case of written Brazilian Portuguese, the written signifier (graphemes) is carried out through the letters of the Latin alphabet. The channel that is used in the written system is the **visual-manual one**: to understand what we read, the **letters graphic signals** first reach the sensors located in the cones in the center of the eye (**visual channel**) to pass through successive bottom-up processes in which the information is transformed until the message is reached. To produce the written text, the path is reversed and ends with manual gestures, which **execute the letters**. In this case, the **letters** that carry out the graphemes. Take a good look at the difference between the manual gestures that, in sign language, **carry out its signifiers** and the manual gestures that, in alphabetic writing, **execute the letters** (which, in typing, are limited to a pressure of the end of the fingers on the keyboard).

READING IN THE BRAILLE SYSTEM

Secondly, in reading, we are not communicating anything to anyone: we are **receiving** information via written text (without the presence of the writer) and we start by having to recognize the letters. As the blind person cannot see, he cannot use the visual channel. Then, a tertiary system occurs, that is, instead of recognizing which, how many and how the invariant graphic features that differentiate one letter from the other combine in space, through sight, you have to recognize by touch how many small **salient** dots **there** are on the sheet and what positions they occupy in a matrix of 2 columns and 3 lines, forming a cell (a rectangle) with 6 boxes. Each house only admits two options: either nothing (zero), or the embossed dot. The Braille system is also used to recognize numbers. See below, the first five letters of the Latin alphabet in Braille :

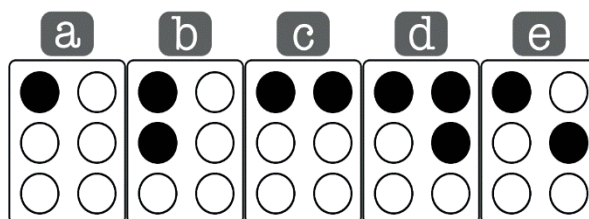


Figure: First five letters of the Roman alphabet in Braille

Source: Professor Cardy, 2018.

UNDERSTANDING MULTILITERACY, A SEMIOTIC ISSUE

Therefore, the question of multiliteracy, a very popular metaphor in textbooks, must be reexamined, as the proposal by which students must learn to read, to understand and appropriately use the various language codes within society (it is, therefore, a matter of semiology or semiotics).

To this end, it is necessary that, at a

minimum, multiliteracy proponents know:

1 – what are the signs;

2 - that the signifiers may be **primary**, as happens with the succession of phonemes in the oral word, or that of quiremas (gestural units in the signs of deaf's languages), or that of the rhythmic and melodic units of the musical sign, or of the three colors (which are not in succession, but in substitution), used in traffic lights; **secondary**, as with graphemes, in alphabetic systems or even **tertiary systems**, as with Braille;

3 – that the sensory base of each of these signifiers can be different: auditory, visual, tactile or kinesthetic;

4 – that the processing to recognize, identify and understand the signs is different from that involved in the responses, which, depending on each system, can be linguistic and/or behavioral.

In the text on p. 14 (Centurión; La Scala; Rodrigues, 2014), the authors intended that 2nd year students understood that there are other communication systems and how they work; the authors gave, as examples, a Braille System sample and a supposed sign language one: the latter is not a language whose units that carry out the signs represent, tertiarily, the letters of the Latin alphabet, as in the example on p. 14 suggests. See, below, an example of two words in sign language, CONVERSAR, DEPRESSA:

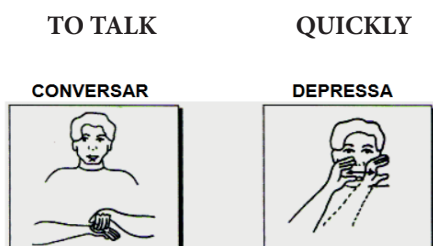


Figure: Example of two words in sign language

Source: KERLEN PEREIRA (undated).

activity in the Braille system, as it involves the use of mathematical reasoning, such as cardinal and ordinal numbers and geometric shapes:

1. Print as many copies as your students from Chart 1, below, **If I were blind, I would read the words by groping with my fingers.** Glue the sheets onto sheets of styrofoam or cork, placing thumbtacks in the black circles.

2. Distribute the sheets to the students and explain to them how the blind read; then, make a simulation, with the first line of the Annex, where the matrices of the letters **A, B, C, D, E are**, saying: “While you run your finger, on the thumbtacks, answer the following questions for each letter:

- a) How many thumbtacks for the letter (point on the board, or sheet you distributed)?
- b) What line(s) are you on?
- c) What column(s) are you in?”

You can see that, in the Braille system, calculations are made with cardinal numbers (how many?) and ordinal numbers (in the 1st and/or 2nd and/or 3rd line? In the 1st and/or 2nd column?).

Then train students to identify the first word of Attachment, **CABE** (‘fts’ in Eng.) and then propose the game “If I were blind, I would read the words by groping with my fingers”.

Divide the class into two groups (each group can choose its name). Then explain that they are going to have an experience of trying to read five words, as if they were blind. The words only contain the 5 letters with thumbtacks that were taught (**ABA** (‘tab’ in Eng.), **CADA** (‘each’ in Eng.), **CACA** (‘shit’ in Eng.), **BABA** (‘drool’ in Eng.). Write the name of each group on the blackboard, to put a dash underneath, indicating who gets the word right first.

Therefore, I propose the following reading

A	B	C	D	E

Chart 1. If I were blind, I would read the words by groping with my fingers A, B, C, D, E letters in Braille

Source: Professor Cardy, 2018, adapted by Leonor Scliar Cabral

Command: “Each Group must send an Inspector to take care of the other Group: during the game, everyone must close their eyes. If anyone opens their eyes, he/she is excluded. Let’s start with the 2nd line, which has 4 places, so 4 letters. With your eyes closed, run your finger over the 6 windows of the 1st house to find the letter. Then do the same on the 2nd and 3rd houses, finally on the 4th house. Raise your arm who knows what the word is, keeping your eyes closed until the end of the game”. Place a dash under the Group that hit first.

Follow the same command for the next three words that have 3 places. Keep putting the traits of the Group that gets it right on the

board until you finish reading the 5 words, saying: “Now you can open your eyes, the winner is...”.

OTHER EXPERIENCES WITH MULTILITERACY

In fact, many codes and symbols need to be **situated** in a certain context to make sense. What does a sign with **10:00 mean**, above **25°C**, hanging by two ropes, with what appears to be the outline of some buildings in the background (CENTURIÓN; LA SCALA; RODRIGUES, 2014, pp. 8-9)? We infer that the authors’ intention was to refer to a system that uses two alternating codes, arranged along the streets, roads, avenues, etc. (and not in the airspace) to inform passers-by of the ambient temperature in a given hour, minutes and seconds, thus demonstrating its social use.

To understand the system of the plate suspended by the ropes, it is necessary to know how to read the digital hour code and also to know that the small zero ° superscript to the right of the number 25 means “degrees”, as well as that the C, to the right of ° is the abbreviation for Celsius.

It is already clear that if we want our children to learn the meanings of the various uses of numbers and mathematical concepts socially, they must be taught in the appropriate situational context and, of course, obeying the criterion of increasing cognitive complexity.

I suggest that, instead of order asking the meanings of advertisements, signs, cards and symbols, piled up without a threshing floor or edge (CENTURIÓN; LA SCALA; RODRIGUES, 2014, pp. 8-9), 2nd year teachers propose the following games :

1. READ FAIR

Scenario : shelves with sections and respective numbers: 292 (Only comic books); 294 (Sports and Leisure); 296 (Sports and Leisure); counter for the Cashier (simulate a

computer) to register; tents to display books and advertisements: THE BEST SELLING BOOKS..., EVERY BOOK...; bills (simulated) of R\$10.00, R\$5.00, R\$2.00; leisure corner (benches and tables for reading).

Characters : buyers and visitors to the Fair; manager, cashier and sellers, stock controller (write the name of the book sold on the blackboard and, as it is being sold, put a dash until completing a square with the diagonal cutting two right triangles.

At the end of the game, update the ad THE BEST SELLING BOOKS, which has the function of teaching the use of ordinal numbers.

2. Play Traffic Guard

Scenario : In the school yard, draw sidewalks, security lanes, parking for the elderly and wheelchair users on the ground; put poles with signs for the school area and with lights with the three colors that can be replaced, simulating a traffic light; scoreboard on which successive plaques with the various hours, minutes, seconds and the various °C can be placed (the characters, when passing by the scoreboard, must read the time and temperature).

Characters : passers-by; drivers (holding a wheel, simulating that they are driving); traffic guard (next to the lighthouse, maneuvering the colors); traffic cop (by the scoreboard, maneuvering the numbers)

The guards can write down in a notebook the fines for those who break the traffic rules. See below the children of the 2nd year of the Lagarto school, learning to use the traffic codes.



Figure: Playing Traffic Guard

Source: Jaqueline da Silva Nascimento, 2018

3. Playing tag at school

Divide the children into groups, equipped with arrows and signs with symbols produced by them for the men's and women's bathrooms; refectory; library; courtyard; secretary; 1st Year; 2nd Year. Signal the school: the teacher always asks if the arrow points left, right, up, down. Below, school signage, created by 2nd year students.



Figure: Playing tag at school

Source: Jaqueline da Silva Nascimento, 2018

FINAL COMMENTS

The concept of literacy requires knowledge of semiotics from educators, both for their performance in the classroom and for the preparation of didactic material. Based on the classic definition by F. de Saussure (1969, p. 24), that semiology is the science that studies the life of signs within society, it is not possible to teach them outside the context in which their meaning defines itself. Nor is it possible to discuss communication without knowing

how sign systems are processed.

We have evidence that, with a good foundation, it is possible to develop activities in which children in the early grades learn to use various codes in a pleasant way.

REFERENCES

CENTURIÓN, M.; LA SCALA, J.; RODRIGUES, A. *Porta Aberta Alfabetização matemática, 2º ano, Ensino Fundamental, Anos Iniciais*. São Paulo: FTD, 2014.

INEP, Ministério de Educação, Brasil. 2017. *Sistema de avaliação da educação básica - Avaliação Nacional de Alfabetização*, Available in <http://portal.mec.gov.br/index.php?Option=com_docman&view=download&alias=75181-resultados-ana-2016-pdf&category_slug=outubro-2017-pdf&Itemid=30192>. Access at: 26 de out. 2017.

KERLEN PEREIRA, G. Available in <https://ufsj.edu.br/portal2-repositorio/File/incluir/libras/curso_de_libras_-_graciele.pdf> Access at: 15 de mar. 2018.

MENDES, D.; ARTACHO, M.; JAKIEVICIUS, M.; GIANANTI, R. *Porta Aberta Ciências humanas e da natureza, 2º ano, Ensino Fundamental, Anos Iniciais*. São Paulo: FTD, 2014.

PROF. CARDY. Alfabeto Braille. Available in <<http://www.profcardy.com/cardicas/braille/>> Access at: 15 de mar. 2018.

SAUSSURE, F. de. *Curso de Linguística Geral*. Trans. A. Chelini, J. P. Paes e I. Blikstein, São Paulo: Cultrix/USP, 1969.

SCLIAR-CABRAL, L. *Sistema Scliar de Alfabetização – Fundamentos*. Florianópolis: Editora Lili, 2013.

_____. *Aventuras de Vivi*. Florianópolis: Editora Lili, 2014.

_____. *Sistema Scliar de alfabetização - Roteiros para o professor: Módulo 1, Volume 1*. Florianópolis: Editora Lili, 2018a.

_____. *Sistema Scliar de alfabetização - Roteiros para o professor: Módulo 1, Anexos Volume 2*. Florianópolis: Editora Lili, 2018b.