Chapter #9

AN INNOVATIVE METHOD FOR INTRODUCTION OF WRITTEN LANGUAGE: EXPERIENCE IN MEXICO

Yulia Solovieva & Luis Quintanar Rojas
Autonomous University of Puebla, Mexico

ABSTRACT
Introduction of written language at primary school represents one of the important aspects of school learning. In Mexico, as in many other countries, common methods of teaching are repetition, memorization and reproduction of provided information. This chapter shows an example of implementation of a new method for introduction of written language based on activity theory and concept of guided orientation and comparison of the results with traditional methods. Our method implies fulfillment of joint actions of children guided by teacher. Children learn how to codify and represent oral words of Spanish language with the help of external materialized and perceptive schemes. Specific symbolic means are provided by teacher and used by children. The results of application of the method show correct pronunciation of all known and unknown words, usage of correct space between words in writing, reduced number of orthographic mistakes. After working with the method for one year, children commit less mistakes in reading and writing in comparison with the pupils who learn according to traditional methods. Our proposal may serve as an example of creation of similar method for introductive teaching of written process for other languages and organization of teaching and learning process according to activity theory.

Keywords: innovative education, methods of teaching, written language, primary education, orientation in teaching.

1. INTRODUCTION

The process of teaching of reading and writing at primary school represents one of the most important aspects of child’s life during this period. Learning to read and write is the point of attraction for psychologists and teachers. However, there are no real intents for searching of new ways of psychological understanding of the child’s actions during introduction of reading and writing at school.

From psychological point of view, the period of school learning should be based on gradual formation of concepts by steps (Galperin, 1979; Talizina, 2009) instead of traditional training of separate habits and abilities of pupils. The basic activity of this age is the directed school learning divided between two participants: teacher and pupil. According to Vigotsky’s psychological only school this activity guarantees the establishment of such neo-formations as complete self-voluntary regulation and self-reflection as important characteristic of personality (Vigotsky, 1992). Another important achievement of primary school is the capacity of theoretical thinking instead of empirical thinking predominant in pre-school age (Talizina, 1984, 2009; Obukhova, 1995; Davidov, 2001).

Obviously, the success of a child in acquisition of reading depends on the level of previous preparation for school learning (Akhutina & Pilayeva, 2012; Solovieva & Quintanar, 2009, 2016). Nevertheless, we also consider that traditional methods of school teaching are very far at this moment to solve the problem of learning disabilities and low success in school learning including poor reading and language comprehension.
According to pedagogical psychology developed on the bases of cultural-historical conception of Vigotsky (1992), it is possible to create more productive methods of education. Since proposal of Talizina (1984, 2009) such methods could be called “invariant methods” if they satisfy the following theoretical methodological principles of modern activity theory of learning process:

1) Cultural and historical nature of child’s abilities.
2) Straight relation between pedagogical method (cultural sphere) and child’s learning abilities (individual sphere).
3) Learning process is a specific kind of directed activity divided between teacher and pupil.
4) Learning activity has specific structure: motive, objective, orientation base of action, operations, result.
5) Construction of orientation base of action from external level with posterior gradual interiorization as essential part of the actions.
6) Reconsideration of school object (reading in this case) as a system of concepts and actions instead of empiric or chaotic organization of learning process.
7) Gradual formation of these concepts and actions starting from the most general in the direction to the most particular.
8) Usage of Vigotsky’s concept of the zone of proximal development in real process of formation of concepts and actions according to the level of presentation of action and of joint elaboration of orientation base of action between teacher and pupil (Vigotsky, 1995; Solovieva, 2014; Solovieva & Quintanar, 2016).

Activity theory is a new option for proposal of new alternative methods for initial education and especially for introduction of reading and writing in primary school. The main challenges of activity theory are preparation of specific orientation for each part of knowledge. Our presentation shows an example of usage of orientation for initial introduction of reading and writing process in primary school. The method of orientation is based on previous methodological conceptions of Elkonin (1980, 1995), Galperin (1979, 1992), Talizina (1988, 2009) as main representatives of activity theory and cultural psychology. Reading and writing process is understood as a reflective and voluntary process of symbolic codification and de-codification of oral words by a subject (Luria, 1980, 1997).

Educational system in Mexico, as in many other countries, is facing strong difficulties, especially in teaching of reading in primary school. The process of reading and writing at school traditionally is based on isolated training of this cognitive ability. Strong difficulties in reading and in comprehension of texts persist up to high school and university levels. Common methods of teaching of reading and writing are repetition, memorization and reproduction of given information: letters or syllables. In public schools in Mexico, children never read entire books. Only pages or paragraphs of reduced and simple texts appear in official programs for primary school. Even in private schools reading acquisition is a mechanic process, which starts from the first grade of pre-school age and continues up to the sixth grade of primary school (Quintanar et al., 2011). Cognitive tests measure the quantity of words, which the child can read loudly in a minute. Understanding of the meaning and sense of texts is never taken into account. Situation with reading and understanding at all education levels in Latin America is a serious problem. Such countries as Mexico and Colombia normally occupy last places within OGDA tests. Alternative methods within active school and global reading can’t solve this problem. These methods never take into account orientation, analysis of content of actions and reflexive participation.
of the children in their own school actions (SEP, 2010). Alternative methods are always based on the theory of constructivism or conceptions of competences.

The objective of our study is to show the possibilities of elaboration and application of such method for initial training of reading for Spanish language. The method was created on the bases of the theory of Historic and Cultural Development and Activity Theory using the former proposal of Elkonin (1986) elaborated for Russian language. There were no correspondent proposals for introduction of written Spanish language according to activity theory.

According to Activity Theory, teaching process is considered as shared activity between teacher and pupils. The basic concept of such activity is the concept of orientation (Talizina, 2009; Galperin, 1992; Solovieva & Quintanar, 2019). In all occasions, teacher has to present clear and optimal orientation for each task in the classroom. Clear and optimal orientation depends on specific thematic analysis of each topic, which is studied. In our case, the topic is the type of phonemic representation by graphic signs (letters) typical for specific language (Spanish language). Consequently, the start point of such orientation consists in identification of the level of sounds and the level of graphic signs (letters). Such situation is never taken into account in traditional way of introduction of learning process, when children (and often teachers) have no reflection about the difference between level of sounds and level of letter of the language. Additionally, all tasks should be presented as collective guided activities instead of isolated individual tasks as it happens in traditional form of education.

According to activity theory and conception of interiorization (Vigotsky, 1992; Galperin, 2000; Solovieva, 2014), school tasks should be presented as intellectual actions of pupils by stages: 1) materialized actions, 2) perceptive actions and 3) oral and written actions. The tasks should be presented by stages, starting from external materialized actions of pupils. On this level, the pupils work with external symbolic objects. Orientation base, at this stage, should also be presented on materialized level. Materialized actions should be followed by perceptive stage, on which pupils work with images and produce their own images and schemes and models. Orientation base becomes also perceptive, while children work with images and perceptive models. After work with materialized and perceptive actions, the pupils might be able to pass to oral and written actions. Orientation base is presented by oral and written words and instructions. On this stage, pupils might achieve more independent and reflexive actions. Obviously, all orientations are related to identification of specific linguistic feature of concrete language to be studied (Spanish language, in our case). Specific kinds of orientation, on each stage, should be designed, explained to the teacher and applied in classroom with children.

The previous considerations imply correspondent preparation of teacher before implementation of the method in order to guarantee proper understanding of linguistic and psychological aspects of the method. Our original method took into account important linguistic, psychological and pedagogical aspects (Solovieva & Quintanar, 2016, 2019), which were explained to the teachers who work with the method. These aspects are as follows:

1) Consideration of all linguistic features of sounds in Spanish language.
2) Types of co-relation between verbal sounds and letters used in Spanish language.
3) Necessity of special work on images and graphic activity with children of first year of school education.
4) Necessity of stressing of the order of sounds on oral level and of letters on written level.
5) Inclusion of clear distinction between materialized and perceptive levels.
6) Work with all phonematic differentiations at both materialized and perceptive levels.
7) Inclusion of guided orientation by teacher at all levels.
8) Election of the order of introduction of vowels and consonants.
9) Particular orientation for differentiation of simple and combined sounds.
10) Particular orientation for combinations of letters in case of only one sound.
11) Work in group together with the teacher at all levels.

2. METHOD

The method was used consistently with the first grade of primary school during six years in a small experimental private school, founded by the authors in the city of Puebla, capital of the state of Puebla in Mexico. The school uses methodology according to activity theory for all subjects of primary school. This article describes only the method used for introduction of written speech for first grade of primary school. The groups of children included from six to twelve pupils in classroom. One professional teacher of secondary school was invited and trained by the authors for implementation of the method. The article describes general methodology with qualitative result of progress of children according to the work with the method. Each year, the method is applied during one-hour session at school five days per week during first school year from August to June.

The authors of the method present detailed analysis of phonological and phonetic system of Spanish language as the base for introduction of symbolic codification and graphic representation of kinds of sounds of Spanish language. The Program for Training of Written language implies fulfilment of joint actions of children guided by teacher (Solovieva & Quintanar, 2016). On each stage of the work with the method, the teacher shows children what and how they should do. The work in classroom is always collective and interactive process with no kind of individual tasks. The teacher helps children always in cases of difficulties. Children are encouraged to ask and answer questions collectively, to help each other to correct mistakes or to put examples of words and sounds. All kinds of initiative and interest of children are taken into account by teacher (Obukhova, 2006). All tasks are shared in the group and are fulfilled collectively together with the teacher (Solovieva, Torrado & Quintanar, 2018).

All procedures of the method are based on the concept of the zone of proximal development introduced by Vygotsky (1995). According to this concept, children learn don’t learn independently and individually, but together with an adult. This means that children work collectively and are assisted by teacher constantly. The teacher takes part as another mate of the children and as a guided of intellectual activity. Collective dialogue is the main type of interaction and children are free to move from place to place in the classroom. Children learn how to codify and represent oral words of Spanish language with the help of external materialized schemes. Collective dialogue and joint creative tasks are the main type of interaction and children are free to move from place to place in the classroom. On perceptive stage, children draw these schemes in notebooks together with examples of drawings corresponding to the words they choose.

The method includes introduction of actions of codification at materialized, perceptual and verbal levels (Solovieva, 2015). Gradually, children pass to the level of reading and writing of words and sentences in Spanish. Different creative tasks and work in groups are used during the work with the method. Children use reflective orientation of all kinds of types of correspondence between the sounds and letters in Spanish language.
Seven stages of the Innovative Method for introduction of reading and writing are as follows:

1. Oral phonetic analysis of sounds in words. On this stage children say loudly different words they like. The teacher helps children to identify orally the sounds in each pronounced word.

2. Phonetic analysis with the help of external materialized action. On this stage, the teacher shows the scheme for words, in which the quantity of squares correspondents to quantity of sounds in the word. Children choses correspondent scheme according to the quantity of sounds and fill the schemes with the circles in correspondent places.

3. Introduction of general phonological differentiation of vowels and consonants, work with types of consonants. The vowels are symbolized as red circles, while the consonant sounds as green circles in external schemes. Long and short sounds are presented by symbolic means, as well as hard and soft sound.

4. Stage 4. Perceptive actions of analysis of words. On this stage, children fulfill similar tasks as during previous stages, but on perceptive level: children draw schemes of word in their notebooks.

5. Introduction of letters with the help of materialized external action:
   - Introduction of letters which correspond to vowel sounds;
   - Introduction of letters which correspond to consonant sounds (according to the order of rules for correlation between setter and sound of Spanish language);

6. Introduction of the action of writing and reading of words without external scheme:
   - Writing and reading of letters which determine vowels of Spanish language;
   - Writing and reading of letters which determine consonants of Spanish language;

7. Independent reading and writing of words, sentences and short texts.

Procedure and examples of tasks and exercises in classroom.

During the work with the Method the adult (teacher in group or neuropsychologist in correction individual session) directed all executions of the children. The external scheme of the word served as orientation base of action of phonetic analysis of the words. Initially, the teacher presented known words, later on new words were presented gradually to the children.

Stage 1. Oral phonetic analysis of sounds in words.

At the first stage, the child pronounced the word with help of an adult and tried to fill the presence of different kind of sound in the words. All children pronounce altogether the words. The teacher pays children’s attention to the presence of different sound in each word.

Stage 2. Phonetic analysis with the help of external materialized action.

At the stage of materialized action, the child has to learn not only to fill the existence of sounds, but also to determine the amount of sounds in each word and to represent it with the help of the scheme.

Example of materialized scheme of the word “pato” (duck). In Spanish this word consists of 4 sounds.
Later on, the white circle is placed on the scheme. At this stage the child does not know types of sound, neither names of letters. Instead of that, the child learns to perceive and to identify reflexively the order and the structure of each oral word.

Example: Stage 3. Introduction of general phonological differentiation of vowels and consonants (white circles), work with kinds of consonants.

Gradually, always with the help of orientation of adult, the child learns to differentiate the types of sounds: vowels and consonants. The child has to substitute the white circle by red (for vowels) or green circle (for consonants) in the scheme of the word.
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Figure 3.
Example: “fresa” (strawberry). This word consists of 5 sounds.

\begin{figure}
\centering
\includegraphics[width=0.5\textwidth]{fresa_diagram}
\caption{Example: “fresa” (strawberry). This word consists of 5 sounds.}
\end{figure}

The child also learns to discriminate stressed and unstressed vowels (tonic and atonic vowels) in oral words. The special external “stress” is used in the schemes in order to mark tonic vowels.

Figure 4.
Example: “elefante” (elephant). The word has 8 sounds.

\begin{figure}
\centering
\includegraphics[width=0.5\textwidth]{elefante_diagram}
\caption{Example: “elefante” (elephant). The word has 8 sounds.}
\end{figure}

During the next stage the child has to fill and to determine the soft sound “Ñ” in comparison with oral sound “N”. The teacher has to give examples of the words with these sounds and to stress the difference in their meaning. These differences are marked in external schemes of the words.
Another important phonematic characteristic in Spanish is differentiation of long consonant sound “RR” and short consonant sound “R”. The teacher or therapist gives the examples of such words and the child learns to differentiate these sounds by marking it with 2 little green circles or 1 one green circle as for any consonant sound.

Example: “pera” (pear). In order to differentiate these two words in Spanish it is necessary to perceive the difference between long and sort sound. Normally, children are confused in this situation very often and commit mistakes in their writing. Implementation of reflection about differentiation of long and short sounds helps children to use correct letter in these words, when the letters would be introduced.
Stage 4. Perceptive actions of analysis of words.
On graphic stage the child fulfils the same kind of tasks. The difference is that instead of elaboration of material schemes, the child has to draw the schemes and the circles.

Figure 9.
Example: “oso” (bear).

Figure 10.
Example: “auto” (car).

Letters are gradually introduced on the next stage: first, for vowels and later for consonants.
Stage 5. Introduction of letters with the help of materialized external action. Finally, the child learns to read and write the words with all conventional letter of Spanish alphabet.

Stage 6. Introduction of the action of writing and reading of words without external scheme. At this stage, the scheme is eliminated on the last stage of the work with the method.
Figure 13.
Example: “baño” (bathroom).

The last example shows the writing of the word independently by a child without the help of external scheme of the word.

Stage 7. Independent reading and writing of words, sentences and short texts.

Finally, the children were able to read and write independently sentences and short stories. The sentences produced by children in classroom and at home were of their own invention and were not copied or produced by dictation. There were no mistakes or lack of comprehension while reading after application of the method during one school year.

Figure 14.
Example: written text produced by a pupil at the final stage of the method.

The text is produced in the month of May. The text contains free exposition of the content of fairy tale “Little Soldier” by H.C. Andersen.

3. RESULTS

The results obtained as the consequence of the usage of the method show positive achievements in writing, reading and general linguistic abilities after application of method during a school year or as a part of correction sessions with children who have difficulties
in their development. Usually, children were interested in all kinds of proposed tasks and enjoyed the sessions in classroom.

We find it useful to divide the achievements on the implementation of our method into theoretical conceptual knowledge about language, practical help for reading and writing process at school.

During six years of implementation of the method, each groups of pupils of the first grade has formed the following theoretical reflexive knowledge about the language:

1) Sound and letter is not the same and letter is not the name of the sound. There is a level of sound in our words and the letters are the symbols, which represent sound and their combinations. For example, the children were able to say that the sound “k” may be represented by several letters in Spanish and that the letter “g” may correspond to two different sounds.

2) There are 2 main kinds of sound: vowels and consonants. Sounds may differ according to other characteristics (long – sort; soft – hard). After the work with the method children knew that sound “r” has long and short variants in Spanish, and sound “n” has soft and hard variants.

3) The words can consist of different quantity of sound and also of vowels and consonants. Children were able to give examples of short and long words and of words with different quantity of consonants and vowels. Children could give examples of words, in which the sounds, vowel and consonants, have special place and order in the words.

4) It is possible to change the words (meaning) by changing the sounds. Children were able to give examples of changing of meaning by changing one or more sound in words: “misa” – “mesa” (“mess – table in Spanish”) and many others.

Important achievements were noticed in reading and writing of all children who took part in the work with the method, while studying in the first grade of primary school. Positive characteristics of the reading process were the following:

- The children never read by syllables, but by whole words in all occasions from the very beginning.
- The children never committed mistakes of confusion between letters, omission of sounds or sound anticipation in the words.
- The children were able to read at once sentences and short text corresponding to their age with good comprehension at the end of the work with the method.

In the process of writing the positive results were:

- The children were able to separate accurately one word from another in their writing.
- No letter in the words was wrongly separated by children.
- The usage of space organization of letters in words and between the words were always correct.

A considerable number of common orthographic mistakes in Spanish language were prevented with the help of the Method (confusion between “N” and “Ñ”, confusion between “R” and “RR”, wrong usage of special cases with letters “G”, “C”, “K”, “Q” and others). The work on introduction of specific rules for sound-letter correlation forms an important part of the method (this part of the Method was not included in the present report).

The teacher who worked with the children noticed essential differences between possibilities of this group and other children who were learning by traditional (analytic or global) training of reading. After the work with the method for one school year the children
were successful in reading and writing according to the program of Mexican Secretariat of Education for the first school year.

At the present time, our method has been applied as teaching method in a small primary school in the city of Puebla in Mexico. This school is organized by the authors of the article according to proposals of historical and cultural psychology and activity theory. The results obtained during application of the method have shown correct pronunciation of all known and unknown words, usage of correct space between words in writing, reduced number of orthographic mistakes. The teachers who work now using our Method expressed notable differences between possibilities of this group and other children who were learning by traditional (analytic or global) training of reading. They were able to pass naturally to reading of complex narrative and artistic texts at the end of the first year of primary school. High cognitive motivation permitted introduction of profound analysis of meaning and sense of stories and short novel for children with good understanding. Children were eager to read books independently, which rarely happen in traditional Mexican schools.

4. DISCUSSION

Among strong advantages of the method is correct pronunciation of all known and unknown words in Spanish, usage of correct space between words in writing, reduced number of orthographic mistakes. The method guarantees better understanding of all regularities and exceptions of correspondence between phonological level of words and its representation with graphic symbols (letters). After working with the method for one year, children commit less mistakes in reading and writing in comparison with the pupils who learn according to traditional methods (Solovieva, Torrado & Quintana, 2018). In each group, where our method was applied, it was possible to use other kinds of creative activities with children, such as play “guess the word”, “change the word by modification of first, second or third sound and so on. Collective analysis of long complex difficult words was always accessible for children.

Another important achievement of the method is the platform for gradual introduction of theoretical thinking instead of empirical thinking predominant in pre-school age (Talizina, 1988, 2009; Davidov, 1988). We are sure that the main starting point of our Method is usage of specific orientation for oral and written analysis of words. Such orientation, introduced from external level by joint collective actions between teacher and children, permitted correct fulfillment of intellectual verbal actions of analysis and production of words and sentences. We would like to stress that the introduction of new methods elaborated according to theoretical and methodological proposals of cultural-historic psychology and activity theory could be very useful and productive (Davidov, 1996, 2001). Specific orientations might be created for correction in cases of learning disabilities and prevent mistakes of confusion, inversion, omission, wrong separation and anticipation in reading and writing. Intellectual reflexive analysis of words and separation of level of sounds and letter might be used as the basis for but also as a method for acquisition of foreign language (Solovieva, 2015), which is especially important in modern global world of communication.

The authors are convinced that high interest and constant motivation for learning depend on orientation of each action of a pupil introduced by guidance of the teacher. Such kind of pedagogical proposal is completely based on the principles of activity theory applied to teaching process (Talizina, 1984, 1988. Our proposal might be a new alternative method for initial education and especially for introduction of reading and writing in
primary school. The main challenges of activity theory consist in preparation of specific orientation within conception of the zone of proximal development.

In the case of our study, the concept of the zone of proximal development was adapted to the situation of initial introduction of written language. Specific orientation, based on the precise analysis of the system of grapho-phonemic relations in Spanish language, was created. Each content of the learning process related to introduction of initial abilities in reading and writing at school should be analyzed and systematized according to particular characteristics of each language, especially in concern of correlations, which exist between level of oral sounds and the level of graphic representation of the phonemes and their combinations. In future, it would be necessary to continue similar studies and experiences in different social contexts for diverse languages and levels of education. One of our future interests and possibilities consist in modifications of the method for introduction of written speech for English and Portuguese.

We would like to stress that the introduction of new invariant methods elaborated according to theoretical and methodological proposals of cultural-historic psychology and activity theory could be very useful and productive no only as a method of education and correction of learning disabilities but also as a method of prevention of many other kinds of difficulties, mistakes and confusion in future steps of education and in acquisition of second or third (etc.) language which is especially important in modern global communication.

5. CONCLUSIONS

The objective of the article was to describe theoretical background and procedure of implementation of Innovative method for introduction of written language according to Activity Theory. The method is introduced and applied by authors in small groups of children during the first school grade of primary school. The method shows reflective and conscious way of working with basic linguistic abilities such as phonemic and graphic representation and differentiation. These abilities conform the background for proper acquisition of reading and writing of words and simple sentences with less quantity of typical mistakes such confusion of letters, sounds, spaces between letters in words and space organization of graphic elements in writing. Specific orientation for materialized, perceptive and verbal oral and written actions were used in the method. All participants, children and their teacher, have shown interest and high motivation during six years of implementation of the method in private primary school.

Final conclusions of our experience are as follows:

1. The Innovative Method for Introduction of Written Language (Solovieva & Quintanar, 2016) showed positive results in the process of initial acquisition of written language.
2. Such positive results are related to concepts of orientation and acquisition (intellectual development) and practical usage of reading and writing correspondent to the age of the children.
3. The theoretical and methodological bases of the method open the possibility for creation of such methods for different languages and their broad usage in pedagogical and psychological day to day practice during the initial stage of introduction of written speech.
4. Other invariant methods for other steps of language acquisition, for example, for initial introduction of grammar in primary school should be created in future.
5. Frequently, learning disabilities and low success in school learning might be related to the absence of adequate pedagogical methods.
REFERENCES


Davidov, V.V. (1996). The theory of teaching, which conduct to development. Moscow: ITER.


Solovieva, Yu. (2014). Desarrollo de la actividad intelectual desde paradigma histórico-cultural. [Development of intellectual activity according to historical and cultural paradigm]. México: CEIDE.


ADDITIONAL READING


AUTHORS’ INFORMATION

Full name: Yulia Solovieva
Institutional affiliation: Master in Neuropsychological Diagnostic and Rehabilitation, Autonomous University of Puebla, Mexico.
Institutional address: 4 Sur 104, Centro Histórico, 72000, Puebla, México
Short biographical sketch: Master in History Sciences by Moscow Humanitarian University. Ph.D. by Faculty of Psychology of Moscow State University, Doctor Honoris Causa by University of Peru (Huánuco). Head and Researcher of Master Program in Neuropsychological Diagnosis and Rehabilitation, Faculty of Psychology of Puebla Autonomous University (Mexico). Member of National System of Researchers of Mexico. Member of Tutorial Council of PhD. Program in Educational Sciences of Iberoamericana University. Active member of Latin American Society of Neuropsychology. Author of numerous articles, chapters in books and books dedicated to the topics of historical and cultural psychology, child neuropsychology, developmental and educational psychology. Invited lecturer to public and private institutions of Latin America, European Union and Russian Federation. Specialist in qualitative psychological and neuropsychological assessment and creation and implementation of innovative methods for education and development.

Full name: Luis Quintanar Rojas
Institutional affiliation: Master in Neuropsychological Diagnostic and Rehabilitation, Autonomous University of Puebla, Mexico.
Institutional address: 4 Sur 104, Centro Histórico, 72000, Puebla, México
Short biographical sketch: Master in Psychology by Autonomous University of Mexico, Ph.D. by Faculty of Psychology of Moscow State University, Doctor Honoris Causa by University of Peru (Huánuco). Founder and Researcher of Master Program in Neuropsychological Diagnosis and Rehabilitation, Faculty of Psychology of Puebla Autonomous University (Mexico). Member of National System of Researchers of Mexico. Active member of Latin American Society of Neuropsychology, President of this Society (2011-2015). Author of numerous articles, chapters in books and books dedicated to the topics of historical and cultural psychology, neuropsychology, assessment and rehabilitation. Invited lecturer to public and private institutions of Latin America and European Union. Specialist in aphasiology, speech disorders, qualitative neuropsychological assessment and creation and implementation of programs for correction and rehabilitation of children, adolescents and adults with brain injury and learning disabilities.