

# THE LINGUISTIC BASIS OF NATIVE LANGUAGE GLOTTODIDACTICS IN THE EDUCATIONAL SYSTEM OF BRONISŁAW ROCLAWSKI

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## ABSTRACT

*A child is born with numerous predispositions for language. As early as in the uterus he / she has contact with speech sounds. After birth all babies produce cooing sounds. This is an instinctive behaviour serving as a workout for the speech organ. When the baby is 6 months old, he / she starts to babble. Babble talk contains syllables, among which previously heard syllables can be found more and more. The baby is now intensively preparing to learn to speak. At about 12 months, he / she is building his / her first words. While developing his / her sound structure of words, the child will hear syllables whereby adults will inform him / her about the correct sound structure of words. Syllables are used by Bronisław Roclawski in his methods of teaching speech, reading and writing. These methods belong to native language glottodidactics.*

*The article presents the linguistic basis for native language "glottodidactics" used in the educational system authored by B. Roclawski as an innovative method of teaching pre-school and early school children to read and write. The author, who is licensed and qualified to teach with this method, shares her knowledge and skills which she effectively employs when working with her students of preschool and early school pedagogy at the Institute of Pedagogy, John Paul II Catholic University of Lublin, Poland.*

**Keywords:** *Polish language education, language education, innovative method, learning to read and write, teaching aids, glottodidactics.*

## INTRODUCTION

In Polish scientific literature we encounter rich terminology that distinguishes such notions as phonetics, phonology, phonological, phonetic, phonematic or phonemic hearing. However, not all of these terms are treated synonymously.

Phonology deals with speech sounds with respect to the function they play in the process of communication. Central to phonology is the phoneme, the smallest, abstract and functional unit of a language system that comprises a set of co-occurring phonological distinctive features which distinguish it from other phonemes

(Kamińska-Szmaj, 2005). Phonetics studies and describes speech sounds with respect to their physical properties, that is articulatory and acoustic characteristics of a particular sound, focusing on the phone (Ostaszewska, Tambor, 2002, 101).

The child's acquisition of phonological competence is gradual and distributed over a length of time. In the period when speech sound discrimination skills are trained, the language that the people around the child use affects her ability to detect phonetic-phonological contrasts. Acquisition of phonological competences is tightly associated with phonemic hearing. This term was introduced into Polish science thanks to research carried out by a neuropsychologist and neurolinguist Luria, who claimed that: "If a phonological system is based on isolation and juxtaposition of meaningful features of expressive speech and on organisation of phonemes, it is obvious that the analysis of speech sounds must be based on cortical mechanisms of the hearing analyser with the participation of kinaesthetic and motor analyser. After the cortical representation of the hearing analyser is damaged, the ability to isolate essential features of sounds and synthesize them into stable phonemes is disturbed" (Luria, 1976).

For Styczek phonematic hearing is "an ability to distinguish the smallest constituents of words, i.e. phonemes." Phonematic hearing is also an ability to identify a phone thanks to its fixed and essential features, the so-called distinctive features. Phonematic hearing entails an adaptation of the hearing system to receive specific phonematic features of a particular language and to discriminate speech sounds, that is to be able to analyse and synthesize them. It also provides for discrimination of these features of a speech sound sequence which play a major role in the identification of a particular phoneme, whereby one can distinguish a given word from others with a distinct meaning (Styczek, 1982, 6).

Analysing Luria's Approach, Bronisław Ročlawski concludes that "a phonematic adjective is fully replaceable by a phonological adjective, the latter moving us towards phonology and the phoneme." He also remarks that in line with Luria's conception the analytical and synthetic process at the phonematic level (phonological) does not stand for a break-down of words into phonemes (phones) and a synthesis out of phonemes (Ročlawski, 1995, 20).

More specifically, phonological hearing is identified with phonemic hearing. In this vein, B. Ročlawski defines phonemic hearing "as an ability to qualify phones that are isolated from a flow of words as belonging to defined, phonologically determined classes of phones." Disturbances in phonemic hearing can be caused by lack of this ability or disturbed qualification of phones (Ročlawski, 1986).

Phonemic hearing is responsible for the ability to isolate and distinguish individual phones in the sound structure of language and their qualification to a proper class with regard to meaning. Having well-functioning phonemic hearing, the child has models of the correct sound of words; she can also recognize incorrect pronunciation in others.

Phonemic hearing in Ročlawski's view is an ability to distinguish phones and prosodic phenomena of speech. This is closely related to musical hearing (Ročlawski, 2001). This type of hearing enables one to perceive the physical aspects of a sound and its identification when it is pronounced at various speeds or intensity, even in whisper, and with different qualities. This enable changes in intonation and accent to be spotted. Also word recognition is possible if the place of articulation of phones is altered, thus facilitating elimination of distortions of pronounced phones. The expressiveness and beauty of speech relies on efficient phonetic hearing.

## 1. THE WORLD OF PHONEMES AND LETTERS

Native language glottodidactics is an innovative method, developed and improved by prof. Ročlawski, an academic researcher at University of Gdańsk until 1994 (for 23 years), then at Maria Grzegorzewska University (Warsaw) until his retirement in 2008. Currently, prof. Ročlawski heads the Treatment Centre for Disturbed Speech, Reading, Writing and Calculation (Gdańsk); he is the general manager of the Centre for Teacher Development MODEN in Gdańsk, and he also teaches at College of Family Alliance in Warsaw.

The native language glottodidactic method prepares even very small children for the study of reading, writing with very good results. The method is successfully used in many preschools and schools in Poland and abroad. From the early days of such education, particular stress is laid on the proper development of the speech organ and respiratory tract. In the author's view, language education is extremely important for the child, for her learning to read and write, which is a complex process therefore it is crucial to begin games and exercises with pupils as early as possible. These activities should be adapted to the psychological and physical development of children and their articulatory and auditory ability. The child also needs spatial orientation, which should be connected with the pattern of his / her own body (the heart is the point of reference). When starting to learn reading and writing, pupils should be prepared, through various activities, to achieve the maximum efficiency of the hearing, visual and kinaesthetic-motor analysers (Ročlawski, 2001).

During play children can discover the operation of the vocal folds, lips and tongue. By improving phonetic and visual memory, the child encounters speech units which he / she has to remember as sound phenomena (phone) and visual (letter). A teacher who is beginning to teach children to read and write should start off by having them master phonemic (phonal) synthesis and analysis of words, and take care of their auditory memory of syllables and phones and their visual memory of letters. Activities devoted to the proper pronunciation of phones in isolation should always involve proper production of respective phonemes, with prolonged articulation of sustainable phones and using two- or three-phoneme words. The articulatory classification of phones, i.e. the arrangement and manner of movement of the speech organs, covers vowels and consonants. The Polish language uses six basic oral vowels

with a lot of position and optional variants. Vowels differ in quality, which depends chiefly on the state of resonators in the oral cavity. The front and rear resonators are typically mentioned. Basic vowels are produced with the use of vocal folds, so “when the synthetic-analytic-phonetic method is used, reading and writing cannot be taught without practising phonal (phonemic) analysis and synthesis of words” (Rocławski, 1986, 149).

Rocławski's method puts a great deal of emphasis on phonemic (phonal) synthesis and analysis of words which serve as the basis of fluent reading and writing. Pupils arrive at the phonemic synthesis via a series of activities in syllabic, morphemic, logo. The teacher should start phonemic synthesis with those words that are composed of sustainable phones. In other words, when phonemes are pronounced, minimal pauses are made and the phones are slightly prolonged. There must be no 'y' sound phoneme-finally. Activities in synthesis involve tasks which use syllabic and phonemic analysis. For phonemic analysis and synthesis the teacher should use LOGO blocks, authored by Rocławski, which serve as an excellent teaching aid. Children using these blocks deal with the whole alphabet from a very early age; they become familiar with distinctive features of individual letters, and through regular contact with letters they learn to correctly recognize and name letters very quickly. In this way children learn printed letters and handwritten style letters (printed on ruled worksheets), upper case and lower case letters because the blocks have four basic variants of a letter, each of which is a denotation of the same phoneme. Also each block features a point of reference in the form of a green stripe (Borowska, 2016, 117).

The first stage in learning to read is synthesis and analysis which proceed using the basic letters of the alphabet. In his research, Rocławski resolved to divide letters into basic ones (a, ą, b, c, cz, ć, d, dz, dź, dż, e, ę, f, g, ch, i, j, k, l, ł, m, n, ó, o, p, r, s, sz, ś, t, u, w, y, z, ź, ż) and non-basic letters (ci, dzi, h, ni, ó, rz, si, zi). Thanks to such a division of letters Polish becomes more accessible and the ability to read and write is easier to master. At a later stage, when doing activities which train pupils to connect letters to particular phonemes, the child herself makes a discovery that there is yet another letter to denote a given phoneme (phone)<sup>24</sup>. Such exercises involve a faster matching of letters to particular phonemes. Such activities must be linked with an ability to distinguish letters and 2-, 3- and 4-phoneme syllables in words.

The teacher starts teaching reading only when his / her pupils have learnt to compose words out of phones and easily recognize letters. Reading starts with the 'skimming' of letters and syllables, which gives quicker results in fluent reading. Reading with the use of Rocławski's method involves a longer articulation of vowels (except ą, ę) and sustainable consonants (a, e, f, ch, i, m, n, o, r, s, sz, ś, u, w, y, z, ź, ż). This technique allows children to smoothly progress from phone-and-syllable reading to full words. Skimming with the vowel prolonged gives the child time to recognize

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<sup>24</sup> In general, the phone is interpreted similarly to the phoneme, which constitutes a class of functionally uniform phones whose substitution in a word does not change meaning.

the following letters and prevents them from adding the 'y' vowel to the consonants. Reading that involves skimming letters is just a preliminary stage. Now, from the sounding of short words and syllables, the child moves on to short texts. Working on reading skills, the teacher should gradually substitute the skimming technique for fluent reading, which ultimately leads to silent reading with comprehension. While teaching reading, we should work with our pupils at such a pace and for so long as not to deprive them of their natural desire to read.

In parallel with preparation for reading, the teacher should prepare pupils for writing instruction. Writing requires good fluency in reading, which is necessary to control the text being written down, therefore learning to write must not precede the ability to read. The author of the presented method developed 'loop' writing which is supposed to lead to fluent writing. There is also a 'loopless' version. While preparing for writing, pupils draw their letters along traced letters with the direction marked. The teacher monitors his / her pupils writing and joining letters correctly and groups letters in respect of the method of drawing and joining letters. In drawing letters, the choice of writing utensils is important. They must leave a trace when moved along a sheet of paper without pressing (Borowska, 2016, 120).

By playing with LOGO blocks children acquire a passive knowledge of letters. Handwritten-style letters are first to learn because children must have a passive and active knowledge of them. Printed letters occur only in reading, and for this activity only a passive knowledge of letters is sufficient. The first vowel chosen by pupils to sound and write is 'o'. They compare it with other vowels. Teaching correct writing requires a lot of effort from both the teacher and his / her pupil. Rocławski claims that one of the reasons why the teaching of correct writing is hardly effective is that teachers do not show enough concern for a proper encoding of the phonal structure of words which would be compatible with the current orthophonic standard. Another reason why teaching children to write is unsuccessful is lack of proper care of good phonal synthesis and analysis techniques. The graphical representation of letters visible on LOGO blocks slightly differs from the one used currently in Polish schooling. Rocławski proposed a style which consequently meets the requirement of smooth letter connection, for example letters 's' and 'z' in the digraph 'sz' are joined smoothly, and the artificial transition between the two letters of the digraph 'rz' has been done away with where the final element of 'r' and the initial element of 'z' have been dropped. In the case of letters 'p' and 'b', the child first closes the loop and then draws the link to the next letter crossing the shape created by the closed loop. This smooth and dynamic method of drawing letters is more convenient to children (Rocławski, 2008).

## **2. THE USE OF ORTHOGRAPHIC RULES**

At a preschool stage and with Rocławski's method in place, during phonal analysis and synthesis of words, pupils study the rudiments of orthography. In this way they are faced not only with the world of phonemes but also letters. Pupils who are trained

using the method are not passive observers but they are the ones to discover spelling rules and participate in game creation. The conception Ročlawski's programme is based on a 44-letter alphabet which includes digraphs. Children study the alphabet by encountering all letters (printed, handwritten, upper case, lower case) and learning to recognize their distinctive features. By introducing a graphical pattern of a word (orthographic notation), the teacher teaches letters to his/her pupils as early as before learning to write, so they get to know various words before they learn to write letters.

The innovativeness of this method lies in a division of letters into basic (written in black) and non-basic (ci, dzi, h, ni, ó, rz, si, zi), which at the initial stage of learning to read and write are written down in red or outline print in order to pay attention to orthophonic and orthographic problems. In this way, children find out that there is a second, third and fourth letter denoting the same phone. There are more non-basic letters and they differ from the ones mentioned above in that they are shaped in the same way as the basic letters but they always denote a different phone. Orthographic rules are based on the orthophonic basis. Non-basic letters should be introduced after the basic letters have been linked to their relevant phonemes. Children themselves should spot the change in the way words are written and discover the reason why some letters are marked with red colour. The use of orthophonic rules while reading (substituting an appropriate phone for a letter) causes that the text being read is understood, e.g. *auto* should be read as [awto], not [auto], or *kwiat* is read as [kfjat], not [kviat]. According to Ročlawski, when teachers introduce letters in a traditional way, they mix up the world of phones with the world of letters while expecting their pupils to hear phones which they do not hear, e.g. a child perceives the phone "k" in *róg* but not "g" (Ročlawscy, 2010).

The presence of non-basic letters in a word is conditioned historically. These letters are a legacy of the old phonic notation of words in Polish, and we should know what phones they represent in words containing non-basic letters or we will mispronounce a given word. A non-basic letter always indicates a spot where the writing person should be doubly cautious. Data analysis presented in *Słownik ortograficzno-ortofoniczny* indicates that only five non-basic letters (z, dz, rz, ę, ą) require extra information to determine which phone they denote. Required additional information can be obtained by observing the context of a particular letter and sometimes by referring to the knowledge of phonetics, which classifies the phone either as a voiced or a voiceless phone. The dictionary also provides rules necessary for transformation of a orthographic notation into an orthophonic one. The readers of this publication, armed with knowledge, will easily determine the phonal version of a word, the knowledge of which is necessary for teaching of phonemic analysis and synthesis of words (Ročlawski, 2011).

Considerable difficulty concerning spelling is encountered in those utterances where phones presenting orthographic problems occur (i.e. two or more letters are used to denote one phone). The mastery of the correct spelling of words containing phones e, o, u, sz, ź, ch causes the greatest difficulty since no rules can be furnished

which would facilitate all orthographic doubts connected therewith. There are few phonemes which are written down using two or three non-basic letters, and nearly all of them are realized by means of soft phones, and their proper notation enables a simple spelling algorithm that contains only several easy rules that can be mastered even by a six-year-old. *Słownik* also provides the new, detailed rules of Polish orthography, presenting rules to write phones, not letters in a consistent manner. When seeking rules, children write words in tables, compare numerous examples and verify their spelling thus discovering orthophonic and orthographic rules. Errors are prevented by the orthographic window, which appear when there is no way to establish how a given phone is to be written down (Rocławski, 2011).

For learning spelling, Rocławski proposes a major change to the approach to spelling rules, the latter of which can be discovered using his books, e.g. *W krainie reguł ortograficznych. Pisownia samogłosek*, *W krainie reguł ortograficznych. Pisownia głosek miękkich ń, ś, ć, dź (miękkka)*, or *Nauka ortografii z glottodywanikiem*. These publications offer a number of exercises that check a pupil's readiness for the discovery of orthophonic and orthographic rules. A good source is the dissertation *A critical look at the rules of Polish orthography*, in which the author presents an insight into Polish orthography, assessing its existing erroneous rules, for proper and reliable education.

## CONCLUSIONS

The native language glottodidactics method developed by B. Rocławski, in line with contemporary trends, permits a different approach to the education of children and to their emotional and social growth. The method extends preparation time needed by pupils to start learning reading and writing in order to minimize time devoted to learning how to write and read fluently with comprehension. Thanks to a specially adapted and arranged process of teaching, creative thinking is developed, cognitive skills are fostered, and the child learns individual and group work, develops responsibility for an entrusted task, and above all the pace of work is adapted to the abilities and needs of the learner. The author of the method pays particular attention to correct orthophony (pronunciation), regarding it as the basis for correct reading and writing. The method implements exercises improving the function of the child's speech organs, and enables the child to produce speech sounds accurately. The method offers new techniques of teaching to read and write. Breathing exercises are given special emphasis. The teaching programme for reading and writing offered by this method provides an opportunity for individualized treatment of pupils. Each child has her own rhythm and pace of intellectual, social-emotional and physical growth, therefore she should be approached individually. Lessons involving this method foster logical thinking and creativity, and the opportunity to learn reading relatively fast makes her familiar with literature. Native language glottodidactics brings order to the child's world of phones and letters. Starting off with spoken language, which is close and natural to the child, rather than written language, gives each child a chance to succeed.

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## SANTRAUKA

### **GIMTOSIOS KALBOS GLOTODIDAKTIKOS LINGVISTINĖ BAZĖ BRONISLAVO ROCLAVSKIO ŠVIETIMO SISTEMOJE**

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Vaikas gimsta su įvairiais polinkiais į kalbų mokymąsi. Jau gimdoje kūdikis turi kontaktą su kalbos garsais. Užgimę kūdikiai produkuoja burkavimo garsus. Tai instinktyvus elgesys, tarnaujantis kalbos organų treniravimui. Kai kūdikis sulaukia 6 mėnesių, jis pradeda vebłenti. Vebłenimas susideda iš skiemenų, tarpe kurių anksčiau girdėti skiemenys vis tampa dažnesni. Kūdikis šiuo momentu intensyviai ruošiasi mokymuisi kalbėti. Apie dvyliktą mėnesį vaikas ištaria pirmus žodžius. Kurdamas žodžių garsinę struktūrą vaikas girdi skiemenis, kuriais suaugusieji informuoja vaiką apie teisingą garsinę žodžių struktūrą. Skiemenys naudojami Bronislavo Roclavskio metoduose mokant kalbėjimo, skaitymo ir rašymo. Šie metodai prisikiriami gimtosios kalbos glotodidaktikai.

Straipsnyje pristatoma lingvistinė bazė, skirta gimtosios kalbos glotodidaktikai, kuri naudojama B. Roclavskio švietimo sistemoje kaip inovatyvus metodas, mokant ikimokyklinio ir ankstyvojo mokyklinio amžiaus vaikus skaityti ir rašyti. Straipsnio autorė, turinti teisę dirbti taikant šiuos metodus, dalinasi žiniomis ir įgūdžiais, kuriuos ji sėkmingai naudoja su ikimokyklinės ir ankstyvosios mokyklinės pedagogikos studentais Pedagogikos institute Liublino Jono Pauliaus II katalikiškame universitete Lenkijoje.