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## **The strategic method of the improvement of phoneme production. The main reasons and assumption**

If one will not feel the soul of a single sound,  
he will not feel the soul of a word,  
the soul of a sentence or of a thought.

*Józef Mikulski*

### SUMMARY

The author presents the motivation and the assumptions of the strategic method of the improvement of phoneme production. In the article there are several opinions on the therapy in the area of articulation disorders and some definitions of the terms: a procedure, a method, a strategy. It also determines their mutual relations. The author lists the stages of the improvement of phoneme production and the strategies of work in this field.

**Keywords:** dyslalia, improvement of phoneme production, therapy of articulation disorders.

### INTRODUCTION

The disorders of phoneme production may appear in different aberrations and assume a diverse form and intensity. Therefore, they influence the intelligibility of speech, the possibility of building new lexical items, morphemes and phrases. It is obvious that if there are more sounds in the child's repertoire of speech, the more possibilities of uttering the new words the child has at his or her disposal. Without these basic 'bricks' of speech, there would be no possibility to speak. However, there is the opposite relation, namely, if the child knows and utters more words, he or she will faster get through with intricacies of articulation in the Polish consonants (Łobacz 2005, Zarębina 1994).

When we comment on nonnormative production of phonemes in the context of the typology of speech disorders, the following thought comes to our mind: can the distinguished nosologic units be found in their clear form in speech therapy? Is it the case that currently we can more and more often talk about the **mosaic of symptoms and the mosaic of causes**? As my experience shows, in some children, for example, the children with autism there are also the circumferential disorders of the motor and functional nature. They hinder learning which is similar to the situation when children suffer from aphonia or hypoacusis. Therefore, we can talk about some patchwork of symptoms and causes. In the context of the diagnosis and therapy, it means the necessity of taking into consideration different reasons of disorders. At the same time, we should not only pay attention to the main factor. Hence, it is difficult to work with children with seemingly the same defect of speech in the same way, because even slight pathological factors, which were not perceived during the diagnosis aimed at recognition of the main reason of the disorders, may cause the modification of the therapy in different ways (Pluta-Wojciechowska 2012a).

The procedure in the area of speech therapy is based on three stages in which what can be distinguished is the explanation of the reasons of disorders and the prognosis, programming of the therapy and the way it is led (Grabias 1997, 2008). Each of these stages is connected with definite actions carried out by the therapies. The actions fulfill the tasks connected with each stage of the task. In the context of the phoneme disorders the first task aims to establish the reasons of the disorder in phoneme production, which means something more than only indicating of the phoneme which is produced in a nonnormative way. Hence, it is not enough to say that there is multiple dyslalia. It is essential to indicate the essence of this non-normative phoneme/s production in the phonetic categories. It means that we must describe which phonetic feature/s are nonnormative and in the later stage, we must establish what we can hear and observe in the place of the expected feature and the postulated feature in the description of normative phonological-phonetic system and at the same time, take into account the age of the child. We have to do much more than just say that there is rotacism or lambdacisms or stammering. The description of nonnormative phoneme production is an issue of many studies which give a lot of practical tools facilitating the task (Ostapiuk 1997; Konopska 2006, Pluta-Wojciechowska 2006, 2010).

The following stage of the procedure is associated with the explanation of the reasons of the fact that the nonnormative phonetic features occur in the described production of phonemes. If the description of the disorders in phoneme production is prepared correctly, the following stage is bound up with the following questions: why instead of alveolarity during the production of the phoneme /l/ do we observe interdentality, or why instead of bilabiate occlusion do we observe a

pharyngeal occlusion or why instead of back glossal feature do we observe front-glottic dentality or why instead of affricativeness do we observe fricativeness or why instead of oral sounds are nasal sounds created?

Let us pay the reader's attention to the fact that each phonetic feature results from the predetermined arrangement of the speech organs which work in the particular way and which are put in motion after the activation of the given phoneme. Focusing on the arrangement, placement and movements of the speech organs, which are the peculiar machinery carrying out the tasks connected with production of the sounds (but also connected with the primary activities), allows us to "move" the nonnormative features of phoneme production to the movement of speech organs activated under the influence of the activation of the phoneme. From this point there is a short way to the moment where behind the nonnormative features of phoneme production we are able to "see" the damaged mechanism taking part in their production. Therefore, the questions formulated above may take the form taking into account the perceptual and productive processes. We may ask the question in the following way: why cannot the child activate the tongue in the way that allows him to obtain the contact between the frontal part of the tongue and the gums? Why cannot the child achieve the contact between the lips and obtain pressure in the oral cavity in order to produce the bilabial stop sound? What prevents the child from achieving the contact between the back part of the tongue and the soft palate? What prevents the child from achieving affricativeness instead of fricativeness? Why cannot the child separate the oral cavity from the nasal cavity?

The answers to these questions entail the activity of searching for the reasons of it in the perceptual and/or productive processes which are responsible for the production of the particular phoneme. Such decisions require the assessment and explanation of the relations between phoneme production and the routes of the central and peripheral processes conditioning language and linguistic behavior. In other words, what is required is the description of the symptom in relation to the man's features that refer to the central and peripheral processes conditioning the emergence of the given symptom. It is consistent with the contemporary vision of the field and tasks in speech therapy (Grabias 1997; 2008).

The subsequent level of the procedure is connected with the prognosis, programming and carrying out the therapy. The improvement of the speaking abilities, together with the improvement of phoneme production, is one of the procedures of the speech therapy beside 1. building up the competence and 2. stabilization of disintegration state, reconstruction of the speaking ability and competence (Grabias 1997, 2008). Yet, it should be strengthened that programming all elements at the beginning of the therapy is not always practical as the diagnosis has to be verified during all the meetings with the patient.

The procedure involved in speech therapy itself is defined as “the entirety of treatment during speech therapy applied in the definite procedure” (Grabias 1997, 32). We can assume that the procedure of improving the phoneme production is a set of therapeutic actions applied during the improvement of phoneme production; in other words, they aim at removing the undesirable states and introducing/initiating the expected and desirable ones which refer to the sound-like production of phonemes. This procedure cannot therefore be reduced to the sound elicitation, even though this is a key moment during the procedure of phoneme production improvement. It happens in this way because the sounds as the realizations of phonemes are conditioned by manifold factors which “have an effect” on the child from the birth (or even earlier) leading them from a scream to a sound in the word carrying meaning.

Hence, when commenting on the route of the improvement of phoneme production, one should be perceived broadly. What should be taken into account is the construction of the foreground of articulation. It ought to be understood as the creation of some base from the birth, the preparation of the foundations or even of the scaffolding by means of some kind of elimination of the undesirable features or by means of lessening their strength or also by stimulating or supporting the desired features in the area of nonverbal functions connected with the oral-nasal set, the practice of the hearing sense, the practice of the speech sounds and the culture learning (Pluta-Wojciechowska 2011). The construction of foreground of articulation is a notion that is narrower than the construction of the foreground of speech acquisition. The contemporary knowledge that is connected with the sound and phoneme development allows us to state that this moment desired by parents, the child and the therapist which may be defined as “using the practiced sounds in the everyday speech” sometimes requires some peculiar “remodeling” of the activity of the whole oral-facial complex in the aspect of, for example, the primary functions, as well as, some alteration within the perceptual processes depending on the kind of pathomechanism.

### THE MAIN ASSUMPTIONS

Before the author starts to discuss the main foundations of the strategic method of the improvement of phoneme production, one would like to indicate the most relevant assumption. The main statement for the author is the one which says every child has the right to develop oneself in an optimal way depending on the possibilities and potential and the speech therapist’s main task is matching his or her treatment to the child so that one could develop in order to achieve the most beneficial effects of development from the point of view of its needs. I do not support the thesis that can be defined in the following way: “due to the fact that the child suffers from such developmental disorders, we should be pleased with the

state of this child's present speaking ability". The results of this attitude is some deficiency in some initiative to undertake steps to alter phoneme production, as, let us repeat the phrase - "due to the fact that the child suffers from such developmental disorders, we should be pleased with the state of this child's present speaking ability". Children have manifold tools of phoneme production at their disposal, the different state of perceptual processes; however, if we would like to pronounce the statement "we will not gain any more", we should carry out the deep analysis earlier and we should not withdraw from the therapy before we recognize the disorder. Obviously, we should not follow the main factor conditioning the given defect.

When commenting on the improvement of phoneme production in the context of working with other subsystems of language, for example, alalia, dysglossia, and others, I underline the fact that during the therapy with such patients we should stress all the elements, meaning, we should look for the answer to the question what the most weighty issue is at the given phase of the therapy – is it competence building and then, phoneme production improvement or only phoneme production improvement? It depends on the priorities of the therapy which aspects of phoneme production improvement will be highlighted, if we take into account the predetermined goals.

I assume that relevant part of ontogenesis is individual learning and culture learning. What is important though is the fact that from the birth these two paths of development are tightly connected with each other and, at the same time, they are the elements of the same single developmental process. The individual learning refers to those elements that the organism is able to acquire individually, for example, during some games or play with the language, as well as during autostimulation, breathing, swallowing, biting and chewing. The culture learning refers to what the organism may learn due to the influence of other people or the products of culture<sup>1</sup>. The speech therapy is, according to this perspective, the example of the latter type of learning.

I also assume that the child can learn different sounds by adopting two directions (Pluta-Wojciechowska 2008, 2012b). The first one is a natural way that can be observed in all children. In this path of learning the sounds, the natural methods of learning are utilized. One, similarly to all other developmental paths of other functions, is an ordered developmental program which has been created by nature for those young people. The second way of learning of sounds, occurring in the children with the disorders in the area of phonetic development, has the structured construction, meaning that this way is planned and ordered according to the predetermined methodology in speech therapy. However, this path imitates

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<sup>1</sup> See the Frome of this issue by M. Tomasello 2002.

the natural way in many cases, but, on the other hand, taking into account the kind of symptom, the pathomechanism and the reason, it also utilizes the special kinds of treatment, for example, instead of the developmental order of learning sounds, it takes advantage of the therapeutic order. The structuralized path applied during the improvement sessions of phoneme realization is a powerful means of influencing and affecting the natural way, which the speech therapists know a lot about and which they expect to appear. It implies that in many cases the correctly led therapy causes that in the child's speech the normative sounds start to appear in the place of nonnormative ones; it may happen even in spite of the fact that the speech therapist has not worked on this particular aspect with his patient.

This is an extraordinary effect of therapy resembling the activity of the system of cascade character where the activation of one element of it causes the subsequent changes, which may occur spontaneously and without the therapist's ingeration. Yet, it is the speech therapist who activates this cascade of the subsequent changes via the therapy. We can even state that it is the snow ball effect. We can also state that during this process of achieving some skills of phonetic-phonological nature (and of the others ) the child "switched" the defected mechanisms into the right course.

The child's way from the scream to the sound in the word carrying meaning is described by many factors, and the most essential ones are as follows: the development of perceptual and productive processes, experiencing and doing exercises with various sounds during cooing, etc., the development of social-cognitive abilities. This unusual way is submerged in the child's whole developmental process; thus, it is involved in the development of thinking ability, locomotive and manipulative skills, social skills, visual perception, posture development, as well as, in the developmental transformations in the vocal-articulation route and in the breathing system (Pluta-Wojciechowska 2011).

In my opinion, the path which is followed when we deal with the improvement of phoneme realization runs in time and refers to a few steps which occur one after another. Yet, this path embraces more elements than in the case of sequences we used to distinguish traditionally: the preparation for sound elicitation, sound elicitation, recording it in words. The way we follow in order to achieve normative realization of a phoneme during the speech therapy is an ordered double-track structure. At the same time, let us focus on the fact that this path goes along two routes simultaneously. This implies that the speech therapist cannot lead each child according to the planned way in the same way as all children differ. In the context of the subsequent stages of the procedure, what should be taken into account is the fact that each of them may be accomplished in a different way depending on the child's individual features. These features include: the character of the symptom, patomechanism of the disorders in phoneme realization, the reasons connected with it and the child's psychological properties. It also means

that within the path of improvement of phoneme realization we have two kinds of orders: in one with the series-connection the subsequent stages of the procedure follow one another. The second one is marked by different possibilities of accomplishment of the same stage, which depends on the child's individual features. These **various possibilities of accomplishment of the same task are various strategies of carrying out the procedure**. Hence, the suggested approach to the improvement of phoneme production got the name: *the strategic method of improvement of phoneme production*.

The above way of treatment, which is discussed only in a general way in this article, is also based on the physiological-phonetic approach (Pluta-Wojciechowska 2012b, p. 51-55). It is particularly based on the application of the knowledge referring to:

- the developmental rules connected with the speech development, together with the development of the phonetic-phonological system, also the aspect of exercises of speech organs and hearing perception,
  - the physiology and pathophysiology of speech sound production,
  - phonology, phonetics and pathophonetics,
  - the analyses of cause-effect connections between arrangements, positions, movements of speech organs and the features of the sound in the context of the norm and pathology,
- different media and cognitive paths of learning the articulation, which results from the essence of the sound as the physical and multimodal phenomenon.

#### SOME OPINIONS CONNECTED WITH THE IMPROVEMENT OF PHONEME REALIZATION

The key stage of the improvement of phoneme realization is sound elicitation. There are several views on this issues. Among them the following ones could be worth distinguishing:

I. Before the sound is elicited, the lips, the tongue and breath should be trained.

II. The speech therapist elicits the sound.

III. The sound should be elicited in the determined frames, which means that some therapists opt for the necessity of eliciting the sound in isolation in the first place (later at the beginning of syllables, in the middle of syllables and at the end of syllables and then in words), and others think that the sound should be elicited instantly in longer structures, for example, in the syllable. These are two contrary standpoints.

IV. There are some better methods of sound elicitation which are efficient in the case of every child.



***The polemics with the I opinion: Before the sound is elicited, the lips, the tongue and breath should be exercised***

The following statement may be summarized in the form of the following question: should the speech organs be exercised before sound elicitation? How long do the exercises take? When do we know that the speech organs are well-prepared for sound elicitation? These questions are not easy, because every child is different, which implies that children have the different state of perceptual and productive processes, the skills of the lips, the tongue and the ability to breath. They also have the different state of the ability of achieving the position of the wide tongue raised to the area of the front part of the palate, so called vertical-horizontal position<sup>2</sup> (the key position for the Polish system, and the state of the skill of directing the air stream towards the front part of the tongue differs in children, which is conditioned by various factors, for instance, the course of the primary functions, etc.

It should be emphasized that we should train those elements which are essential for the elicitation of the given sound (and also the elements which are necessary when we aim to achieve the skill essential for rebuilding the damaged primary functions). However, we should also “see further”, which means we should not only perceive the needs connected with a single sound which is to be elicited. The useful idea facilitating the search for some answers to the questions whether we should do exercises and what should be trained in order to start the sound elicitation is assuming the concept of the threshold conditions of sound elicitation. They have two facets: the perceptual one and productive one. The threshold conditions are connected with the minimal and indispensable skill of the organs. They are necessary if we mean to elicit phonemes, as well as indispensable to distinguish and diversify the particular sound. These conditions of work with speech organs result from the knowledge of the phonetic-phonological system, which in the case of every sound determines the necessity of defining the arrangement of the organs, their position and movement as well as the course of air flow.

Therefore, if the child is able to achieve the given position of organs, also during the first visit at the therapist's, and one is able to achieve their movements (determined by the norms), the sound elicitation can be initiated without delay. In such cases the time of exercises is limited and reduced to the procedure of checking if in the child's behavior there are the threshold conditions. In the case of, for

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<sup>2</sup> **The vertical-horizontal positioning** is assuming an erect position of the wide tongue in the oral cavity, when the tongue is lifted on the one side and touches with its top the area behind the necks of teeth of upper incisors and its dorsal part sticks to the palate and on the other side, it has the wide shape. We have to emphasize that the frontal part of tongue has the horizontal position and its tip is directed towards the palatal part of the upper teeth. This position is called vertical-horizontal positioning, meaning, that on the one side there is the vertical rise, that is, assuming the erect position, but, at the same time, there is the horizontal positioning of its frontal part (see Pluta-Wojciechowska 2009).



example, oral sounds in open nasality, the threshold condition which is a condition of starting the sound elicitation, is free blowing and breathing through the lips. Another example is associated with the sound [l], where the threshold condition in the case, for example, of interdentality, is the ability to raise the frontal part of the tongue towards the area nearer the upper gums. If we do not check whether this movement is obtained before sound elicitation, it may happen that the child will achieve the dental sound or another one which is different from the one we expect. Therefore, if the patient fulfills the threshold conditions connected with learning the given sound, we ought to start working on it from instantly, but, at the same time, just after this stage we should plan our work on the subsequent sounds in this aspect of threshold conditions.

***The polemics with the II opinion: The speech therapist elicits sounds***

Does the speech therapist really elicit sounds? I know how controversial the question may sound; however, the presentation of the issue in this way is a purposeful action which helps to emphasize certain problems connected with sound elicitation.

The route to the moment when the sound is uttered can be shown in the following simplified way: the phoneme activation → the movement of the speech organs → the sound possessing some definite phonetic traits that reflect the properties of the given phoneme. I assume that behind each phonetic feature we may find the definite arrangement, position and movement of the organs coordinated with breathing. Let us take advantage of the following example. The child produces phoneme / ö / in the dorsal way. Therefore, the child uses the phoneme, but in the nonnormative way within the area of articulation, as instead of alveolarity there is dorsality. What does the speech therapist do? He or she focuses on the tongue in order to obtain the movement of the tongue in the direction of the gums, so he or she prepares the organs for the elicitation of dorsality. When he encourages the child to produce phoneme / ö / in the alveolar way by means of several kinds of treatment, he elicits a phonetic feature which the child realizes in the nonnormative way, or, more precisely, he elicits the movement of speech organs. Obviously, it results in the normative sound; it can be even stated that the speech therapist exchanges dorsality for alveolarity, which means that he introduces the movement of the frontal part of the tongue towards the upper gums instead of the movement of the dorsal part of the tongue towards the palate. The procedure may be carried out by means of 2 strategies (Pluta-Wojciechowska, 2012b): the analytical method (the brick assembling) or the syntactic method (rebuilding of the construction), or also – taking into account the level of the patient’s awareness of the essence of the speech therapist’s job – by means of the two strategies: “the awareness of work on the new means of realization of phoneme / ö /” or by means of the

strategy “I am teaching a new sound”, which is helpful in the case of many young patients.

In *Uniwersalny słownik języka polskiego* we may read that the expressions *elicit* – in Polish: *wywołać* – *wywoływać* has the different meanings and the main sense of the term can be described as encouraging someone/something to reveal oneself but, at the same time, this “something” has already existed earlier (the meaning 1, 2, 5). The substantial discussion relating to this issue was presented in another article (Pluta-Wojciechowska 2012b), but we may remind in this place that although the term sound elicitation may be sanctioned by the tradition, it can be understood in different ways. On the one hand, some people think that the sound elicitation is a single action during which the speech therapist by means of several activities, or even gimmicks, “discovers or detects a sound which is hidden somewhere”; on the other hand, the action termed “sound elicitation” may also be associated with the long term process leading to the elicitation of it. For the author, sound elicitation is a synthesis of various skills<sup>3</sup>. They appear during the development in the children in the normative way in the natural way (this is why the children do not have difficulties in the phoneme realization), but in the case of the disorders in the area of phonetic development in the children, they are “equipped” with such skills by different kinds of treatment, for example, by means of exercises of the tongue, by the exercises of the repose position when breathing, by the exercise of the perceptual processes, etc. Equipping the child with certain skills may last different periods of time depending on the patient.

***The polemics with the III opinion: The sound should be elicited in the determined frames, which means that some therapists reckon that there is the necessity of eliciting the sound in isolation in the first place (later at the beginning of the word, in the middle or then at the end), and others think that the sound should be elicited at once in the longer structure, for example, in the syllable. These are two contrary standpoints***

The generalization of the reflection connected with these opinions may be the question whether it is the imposed frame of sound elicitation that is always the best alternative for the child. It may be the case that some children find it easier to achieve a new sound in isolation and others obtain it more easily in other structure? If we assume that only this frame is the optimal one, we simultaneously assume that all children are the same. Obviously, as we know, this is not the case. The abovementioned questions are not simple; nevertheless, it is worth considering the case of the young child. Is it not more beneficial to choose the frame of sound elicitation which will be suited to those features of the symptom,

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<sup>3</sup> The child’s way from the scream to sounds in the word carrying meaning (Pluta-Wojciechowska 2011).

patomechanism, the reasons of the disorder and psychical traits? We rely on the knowledge coming from the research on the development of the phonetic features in children. We may find there the information that the initiation of the respiratory system, pharynx, and the base of the tongue after the birth takes the form of scream in which we find the sound of vowel profile. On the other hand, during the early stage of the child's development, we can hear the sounds profiling vowels and consonants, and later during cooing after the individual sound we can hear syllables which are the important structure in the speech development (Łobacz, 2005). However, as Łobacz writes, "[...] cooing is very important although not obligatory [D.P.W.]stage of development" (Łobacz 2005, 237).

The data on the development of the phonetic skill, coming from our practice, show that a sound in a word carrying meaning, for example, in [r], appears in children in different frames (in some cases after a consonant, and in others before a consonant). There are children who through experimenting achieve the ability to utter the sound [r], but they can do it only in isolation. In the case of nonnormative articulation of the sound [k], it turns out that some children are able to utter this sound only in the soften form. It implies that children represent various paths of phonetic development in the aspects of "emerging" the sound or – if we use another formulation – in different frames.

If we, therefore, assume that the data coming from the development of the phonetic skill appear to be the indication in the improvement process of phoneme realization, we have to say, at the same time, that such knowledge makes us take advantage of different frames of sound elicitation. It can be stated that the speech therapist should use different frames of sound elicitation depending on the child. Thus, one uses different strategies connected with a frame of sound elicitation: in isolation or at the beginning or in the middle of syllables or in the consonant group. At the same time, the given order may take another form, namely, in the syllable or in isolation or in the consonant group.

***The polemics with the IV opinion: There are the ultimate methods of sound elicitation which are efficient in the case of every child***

Speech therapists are still searching for effective methods of sound elicitation. The authors does the same. Many of the methods are known only by those therapists who have discovered them as a result of the needs of their particular patient. There are no universal methods that could be efficient in the case of every patient, even though there may exist methods which are more effective in the case of speech disorders of the given type. However, such statements should be aired with caution in the light of a mosaic of symptoms, their reasons and the fact that that we do not know all the facts connected with the development of the children's phonetic skill. On the basis of our discussion, it can be stated that there are only such methods that are efficient or inefficient in the case of the given patient. Why

is it so? There are not the same children despite the fact that we teach them the same sounds. Their perceptual processes and productive processes are in different state and condition as well as their brain differ. Hence, they require different procedures introduced and carried out by the speech therapist.

#### THE RELATIONS BETWEEN THE PROCEDURE, THE METHOD AND THE STRATEGY

The relations between the procedure, the method and the strategy have to be considered when we present the essence of the strategic method of improving the production of phonemes. The definitions of the abovementioned notions are presented beneath:

– **procedure** is ‘the whole treatment connected with speech therapy applied in the given case’ (Grabias 1997, 32);

– **method** is “the consciously applied means of conduct whose aim is to lead to the achievement of the predetermined goal” (*Uniwersalny słownik języka polskiego*), and from the metaphorical perspective, it is an instrument/tool of therapy which can be used in different ways by different strategies (the musical instruments can be used in different ways, too);

– **the strategy** has the narrower meaning than the method (the word *strategy* itself, is a hyponym in relation to the word *method*); this is “the way of treatment leading to the achievement of the given aim, the activity which is in agreement with the assumptions and the future plan of action” (*Uniwersalny słownik...*) or, in a different way, the different means of using the method (the instrument) depending on the patient’s individual features.

Therefore:

**Procedure**

includes

–

**Methods /instruments/**

include

–

**Strategies**

#### THE PATH OF THE IMPROVEMENT OF PHONEME PRODUCTION

The path of the improvement of phoneme production has certain stages which are accomplished by means of the determined methods. I. Styczek – the authority

in the area of Polish speech therapy – mentions the following methods applied in teaching the correct articulation:

- the exercises of the speech organs,
- the explanation of the place of the speech organs,
- the sight control,
- the control of touch and skin feeling,
- reconstructing of the sounds (the phonetic method),
- the place of the tongue by means of the stick or a ...
- symbolic gestures,
- the exercises of the phonematic hearing sense,
- the exercises of the musical hearing ability,
- the exercises of the hearing autocontrol,
- the exercises of the speech kinesthesia,
- the method of “sensitizing” (Styczek 1981, 446–455).

On the other hand, A. Sołtys-Chmielowicz when commenting on the therapy of dyslalia, mentions the preparatory stage, sound elicitation, automatization and strengthening (2008, 63–64). If we compare the methods proposed by I. Styczek i A. Sołtys-Chmielowicz, it can be said that some of the ways of working suggested by I. Styczek can be related to the distinguished stages of treatment described by A. Sołtys-Chmielowicz.

I assume that the path of improving the phoneme production may take on the narrow perspective or the wide perspective. In the narrow version, it only takes account of work aiming at the elicitation of the given sound and its strengthening, but in the wide approach, it refers to the various context connected with the construction of the foreground of articulation. The latter perspective also takes into consideration the young children in whom there may occur a risk of the disorders in phonetic-phonological development.

In my opinion, the improvement of phoneme realization could be compared with the way which is defined by the following steps undertaken by the speech therapist and the child’s activity corresponding with them. However, they go further than the stages mentioned above (nevertheless, they are important stages listed by A. Sołtys-Chmielowicz). The course of the improvement of phoneme production embraces in its wide perspective the following elements:

- **constructing the articulation foreground** which not only should be initiated at the start of the therapy, but it should accompany it,
- **selecting the sound for practicing**, meaning the initiation of the corrector phonetic path; therefore, establishing the type of the order of teaching sounds (the developmental and therapeutic one)
- **obtaining the threshold conditions**, that is, preparation for the improvement of the realization of the determined phoneme (in the form of intentional

exercises and by using the strategies of threshold conditions) and taking into consideration the whole body, the regulation of the muscular tension, respiratory exercises, the exercises of the tongue, lips, palate, the mobility of the jaws and the exercises of the perception of spoken sounds (which is carried out depending on the child and the defect),

- **teaching a sound** by using the optimal method adopted to the child's frame of sound elicitation,

- **the activation of the sound in the bigger structure:** in the syllable (in the case when a sound is elicited in isolation) or in the word (later in the phrase, sentence, text, dialogue, etc., which is associated with the exercises of respiratory-phonation-articulatory coordination),

- **polarization of the sound**, that is, **contrasting** the sound with other sounds<sup>4</sup>,

- **introducing the sound to the everyday speech** (Pluta-Wojciechowska 2008).

Consequently, the path taken by the speech therapist which is discussed here (see the table 1) has the progressive dimension, and in the context of application of different strategies connected with the given method, it has also the selective dimension which is connected with the paradigmatic axis. The feature connected with progressiveness is connected with the subsequent results of the next therapeutic steps leading to changes in the patient. These changes make it possible to achieve the final goal of the therapy. The second dimension refers to various possibilities connected with using the given method (the instrument of the therapy). It is reflected in the catalogue of strategies included in the given method and associated with the selection of the given one and not another one or these ones and not the other ones depending on the child.

The subsequent steps of the phoneme improvement procedure cannot run along the same path in all the children, as the young people are different, so they need different means of therapy. Hence, in the recommended method we take into consideration **different possibilities of accomplishing** the given stage of the therapy, which is reflected in the possibilities of the choosing of different strategies of doing in the given method. Each of the stages may take different periods of time. It depends on the child's individual features. Some children can even not need to go through certain steps of the improvement of phoneme realization.

In conclusion, it may be stated that the list of methods offered by I. Styczek includes the set of different ways of work/treatment. The different types of it mentioned by the abovementioned author can be assigned to the methods of work offered by the author of the present article. These are the instruments of speech therapy which I developed when constructing the model – the path of improve-

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<sup>4</sup> Depending on the type of the disorders some exercises connected with this stage can be moved for the later period of time.

Table 1. The strategies applied during the improvement of phoneme production

Procedure: improvement of phoneme production							
Procedure includes:	Construction of articulation foreground	Selection of a sound for the therapy	Obtaining the threshold conditions	Teaching a sound	Activation of the sound in the longer structure	Polarisation of the sound*	Introduction of the sound into the colloquial speech
<b>Methods include</b>							
<b>Strategies</b>	A. Controlling the correct psychomotor development. B. Controlling the correct development of orofacial space and other nonverbal activities connected with this area (particularly, the primary ones) C. Developing „phonetic realisation skills“. D. Stimulating the development of hearing perception. E. Watching over the correct development of sounds from the birth. F. Training the culture methods of learning sounds (particularly imitation).	A. The strategy of developmental order of sound learning. B. The strategy of the therapeutic order of sound learning. C. The strategy of optimization.	A. The strategy of threshold conditions. B. The strategy of current and long term targets of phoneme production improvement.	A. The analytical strategy of <i>block assembly</i> . B. The syntactic strategy meaning rebuilding the construction. C. The special strategies. D. The strategy of the frame of sound elicitation. E. The strategy of “the consciousness of work with the defected sound “ F. The strategy of a “new sound”.	A. The strategy of matching words with the exercises in the area of the target sound. B. The strategy of the segmentation of words. C. The strategy of exercising the structure of the words. D. The strategy of additional features.	A. The strategy of contrasting the phonetic features. B. The strategy of contrasting phonological features. C. The strategy of contrasting the target sound with the defected sound.	A. The strategy of exercises in the area of language, communication and cognitive skills. B. The strategy of current control of the progress in the therapy. C. The strategy of „minimal steps“. D. The strategy of „new speaking“.

\* Depending on the presented disorders and their etiology, this stage can be introduced later.



ment of phoneme production. Yet, I. Styczek's list was filled by me with some stages, such as, for example, the construction of the foreground of articulation, the introduction of a sound to everyday speech, and more strategies of treatment, for instance, using the therapeutic and developmental order of learning of sounds, which is presented in table 1.

## CONCLUSIONS

The suggested strategic method of the improvement of phoneme production is rooted in my deep conviction that the procedure of the improvement of phoneme realization includes much more steps than the sound elicitation understood as the single act, which corresponds with the results from the research on the conditions of the development of the phonetic-phonological system. In the recommended model we may find different possibilities of the realization of the same stage of work, which corresponds with the necessity of matching the actions to the patient. The discussion of these strategies goes beyond the frames of the present article and will become the issue of my elaboration in the following publications.

To conclude, it may be stated that the relation between the terms describing the therapy connected with the improvement of phonemes is as follows: the procedure of the *improvement of phoneme realization* includes methods (the instruments of the therapy ordered in a certain sequence), and the methods include different strategies. If we assume that the strategy is the notion subordinate in relation to the method, it should be indicated which strategies are suitable within the particular stages of the structuralized way of sound acquisition and the methods connected with them. Within the frames of the given method, on the other hand, several techniques can be distinguished.

The knowledge coming from the analysis of the factors along the way from the scream to the sound in the word carrying the meaning (Pluta-Wojciechowska 2011) makes us locate the step called by the author the construction of the foreground of articulation in the path of improvement of phoneme realization. It may also be applied in the case of children from the group of risk (connected with disorders of the phonetic development). It means that the action facilitating the phonetic development should be undertaken from the very birth. If we take into account the above points, the path of improvement of phoneme realization embraces the following stages. At the same time, the tasks connected with constructing the foreground of articulation are not the single act and can accompany the child throughout the whole time of the therapy. Ones can be initiated during the first meeting with the speech therapist and continued during the whole treatment.

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