

## Language Therapy - Means of Development and Socializing for Autistic Children

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**Abstract:** The requirements of special education entail the approach to the educational act from the standpoint of the child's inability to understand reasoning or elements of learning contents. This cognitive block primarily involves personality imbalance and behavioural disorder. The child refrains from speaking and manifests inhibition towards learning. The more serious is the speaking handicap at an age when one is trying to affirm oneself at the level of the social life, the more the negative effects increase, and personality disorder accentuates. In this context, it is advisable that communication should be clear, concrete and constant – e.g. by using the same word for illustrating similar instances; by using short, simple sentences, accompanied by gestures and intonation; and also by using visual aids in communication (images, pictograms). Such interventions keep the child attentive and decrease his anxiety, making him perceive the words correctly and apply them in communication.

**Keywords:** autism; education; game; communication; social integration

### 1. Introduction

#### 1.1. The Role and Importance of Language

Language is the instrument which stimulates and supports the development of human intelligence and also the highest human individual expression and manifestation. The present-day social context allows the individual access to any type of information. The small children easily pick up any word, which is why we should be careful with the language used at home and in their other environments, as what is communicated would impact on their ulterior development. Verbal communication is acquired gradually, on the one hand under the circumstances of an active interest towards the hypostases in which the surrounding objects appear and towards their role, and on

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the other hand, as a result of an inquiring attitude regarding the origin and cause of some phenomena.

The language acquisition process during activities specific to early education has in view the following aspects: (Curriculum pentru educatia timpurie a copiilor de la 3 la 6/7 ani, 2008, pp.44-46)

- to form habits of correct speaking (phonetically, lexically, grammatically, semantically and literarily);
- to improve and actuate language and logical thinking;
- to develop the monologue and dialogue;
- to help in the acquisition of the generalizing verbal symbols, based on the age particularities.

The language has two components:

- **receptive** (understanding the message);
- **expressive** (utterance or communication of the message).

In the case of the autistic children, the receptive and expressive language is often altogether absent or, when it occurs in certain circumstances (requirements, protests), it is usually echolalic or stereotypical. Autistic children express their wishes and emotions through incoherent behaviour: screams, hetero-aggressiveness and aggressiveness.

## 2. Autism and Language Development for Autistic Children

As per the statistic data available (according to the Ministry of Health), at the level of the year 2012, there were 7,179 people diagnosed with autism in Romania, but the real number is much higher, as the majority are not included in official records. Nevertheless, at the moment in Romania the number of persons suffering from autism spectrum disorder (ASD) is not officially recorded (children, young people, adults). According to the most recent studies published in 2014 by the Center for Disease Control and Prevention, Atlanta, US, at the world level, 1 out of 68 is an autistic person.

ASD affects between 2 and 6 people out of 1000 (according to the National Institute of Mental Health - NIMH, US), this disorder being four times more frequent in the case of boys than in the case of girls.

Autism is a development deficiency which characterises by the lack of skills and abilities of communication and relation establishment. It is a wide spectrum disorder which manifests in various forms in individuals who display autistic symptomatology. In the less severe cases, small children are diagnosed, following evaluation, with Pervasive Developmental Disorder or with Asperger syndrome (these children usually develop normal speaking but have autistic-like social and behavioural issues). The autism notion represents a complex disorder to a higher extent than epilepsy or mental retardation. Autism is a symptomatic manifestation of the cerebral dysfunction, which may be caused by various diseases (Gillberg, 1989; Coleman & Gillberg, 1985).

Autism entails the presence of at least three basic symptoms: insufficiency of social interaction, insufficiency of reciprocal communication (verbal, non-verbal and paraverbal), and underdeveloped imagination, which manifests itself through a limited behavioural spectrum. When all these symptoms manifest concomitantly, one speaks of autistic triad (Wing, 1996).

There are more hypotheses regarding the mechanisms of infantile autism. L. Kanner (1968) asserts that at the roots of this disorder there is a congenital insufficiency of the biological mechanisms of affectivity, which causes “the affective blocking” in the way of establishing contact with the people around. According to H. Asperger, the main cause of the psychic and behavioural disorders in the case of small children is the primary underdevelopment of their instincts. There is an opinion regarding the important role of the perception disorders which lead to the “informational block” and implicitly to communication difficulties, to a limitation of the intellectual and emotional functions. Some researchers advance the hypothesis of pre-eminence of the underdevelopment of inner speaking in the occurrence of the other disorders specific to infantile autism. R. Lempp stresses “the central disorder of processing auditory impressions”, which would lead to a blocking of the need to communicate with the others. Attempts have been made at explaining the cerebral mechanisms in the infantile autism pathogenesis. D.N. Isaev and V.E. Kagan advance the idea that disorders at the level of frontal limbic functional connections are responsible for the occurrence of the disorders in the behaviour organisation and planning system (Isaev & Kagan, 1974).

In what language is concerned, it does not occur at the usual age, and this absence of communication is not replaced with an attempt at any gestural or mimic manifestation. There are certain particularities observed in the case of autistic children when speaking does start: aside from the delay in the development of

communication, there is also immediate or delayed echolalia (the repetition, as an echo, of what the interlocutor has just said), a particular prosody, monotonous, staccato, an inversion of pronouns (e.g. using the pronoun “you” when one speaks about oneself). Furthermore, the syntax is poorly developed, and the expression of emotions (joy, pleasure, surprise, anger) is most often absent altogether.

Although the level of understanding language is usually superior to that of expressing oneself, there are, nevertheless, anomalies: the child especially understands simple, concrete words and commands to perform a simple task. The child does not understand abstractions or jokes.

Speaking acquisition is one of the greatest problems with autistic children. More often than not, they are not able to concretely address to another person, or to use the appellative “mother” to express their needs. However, these children are able to repeat, without emotional and intellectual involvement, long combinations, tirades, using verbal clichés without any logic. Autistic children are fond of rhymes. They love poetry, which they memorize and render regardless of the number of stanzas.

**Table 1. A comparative view on the aspects of normal and autistic development**

**Language and communication**

Age/months	Normal development	Autistic development
2	Utterance of vowel sounds. Cooing	
6	Dialogues in the form of vowel sounds or turning towards the parents. Occurrence of consonants.	Crying is difficult to interpret.
8	Various intonations while cooing, including interrogations. Repeated syllables: ba-ba, ma-ma-ma Indicative gestures	Limited or unusual cooing (whistles, screams). The child does not imitate sounds, gestures.
12	Occurrence of the first words Use of the vocabulary with sentence-specific intonation. Language is mostly used to comment phenomena in the environment. Vowel-using games.	The first words may appear, but they are not used with any meaning. Dissonant screams, hard to understand by the others, occur frequently.

	Use of gestures and vocalization to draw attention; indication of objects or needs.	
<b>18</b>	The vocabulary is made up of c. 30-50 words. They start making two-word combinations and simple sentences. Semantic transference of some words (“daddy” – form of address for all men) The use of language for comments, requirements, performing actions. Drawing attention Frequent echolalia and imitation.	
<b>36</b>	The vocabulary is made up of c. 100 words. Many of the grammatical morphemes (the plural, prepositions, past tense) are used correctly. Echolalia is infrequent at this age. A more active use of language for the meanings of “there” and “then”. The child asks many questions, rather for continuing to speak than for information purposes.	Scarce word combinations. The child may repeat phrases (echolalia) but the use of language is not creative. Incorrect rhythm and intonation. Poor stress in the case of 50% of the autistic children who possess a form of language. Speaking is not conscientious – they do not grasp meanings .
<b>48</b>	The child uses complex sentence structures. The child may carry out a conversation, bringing in new information. The child asks about the meaning of words and phrases. The child is able to adapt the language level to the interlocutor (simplification when the interlocutor is a smaller child).	The child may creatively form a few 2-3-word combinations. Echolalia lingers – it is often used in communication. The child imitates the TV anchor-men. The child expresses requests.

<p><b>60</b></p>	<p>The child uses a larger number of structures. Fundamentally, s/he possesses the grammatical structures and is able to appreciate the sentence as grammatical/ ungrammatical structures, correcting them when necessary. The child develops the understanding of jokes, irony, and is capable to acknowledge language ambiguities. The ability to adapt the language to the situation and the role of the interlocutor increases.</p>	<p>The child does not possess abilities to understand and express abstract notions (e.g. time). The child cannot carry out a conversation. The child uses phrases incorrectly. Echolalia lingers. The child rarely asks questions, and when they do occur, they are repetitive. The tone and rhythm of speaking are misadjusted.</p>
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By comparing the autistic child profile with that of the non-autistic child, we have tried to identify a number of tests elaborated by psychologists, educationalists and physicians experienced in the field, in order to assess the normal development on age groups. Among the most famous inventories, one should mention: (Vraşmas & Oprea, 2003, p. 46)

The Gessel Developmental Schedule is meant to examine children between 4 weeks and 5 years of age, this inventory being subsequently applied up to 10 years. The inventory comprises 28-46 items (differentiated according to age) and refers to motor, verbal and social adaptation behavior.

Brunet-Lezine scale is a French adaptation of Gessel, made up in view of precocious tracing and diagnosing the mental deficiencies at small ages. The scale traces the investigation of four areas:

- a. motor-postural;
- b. language;
- c. adaptation to objects;
- d. social and personal relationships.

At each stage of development, there are 10 items for each of the areas presented above. The Gessel Developmental Schedule allows the calculation of the developmental quotient according to the following formula:

Development age (expressed in days)	DQ =
Chronological Age x100	

**Tests for the examination of oral language:** (Vraşmas & Oprea, 2003, pp. 92-94)

This set of tests evaluates the language level and accentuates its eventual disorders. There are tests used for tracing logopathy and they are applied to preschoolers and small pupils.

Test contents:

1. The Alice Descoedres test for acknowledging the language psychological age
2. The definition test (adapted from R. Zazzo). The child is prompted to answer to the following questions: what is a chair? What is a doll? What is a horse? What is a chicken? What is a fork? What is an apple? What is a table? What is rain? What is mother?

Rating: 1 point for each correct answer.

3. The associative flexibility test
4. The independent speaking test:
  - a) An illustrated material (an illustrated alphabet) is used; the utterance of the sounds occurs gradually at the beginning, in the middle, at the end. The child is asked to correctly pronounce the words based on the sounds s/he hears.

Rating: the sounds mispronounced or omitted in words should be identified.

- b) The child is asked to utter:
  - verbal automatisms/counting to 10/ the days of the week;
  - colours;
  - recitation;
  - narration.

5. The reflected speaking test. In this test, the list of the words and simple sentences comprises all the sounds of the language.

6. The Borel–Maisonny method. The child is required to reproduce the following meaningless verbal structures: 1. mu-co 2. ri-ka-pe 3. man-dur-na-lo 4. va-fi-ta-ru-der.

7. Narration after images.

Points are granted for: fluency, vocal amplitude, speaking rhythm, vocabulary, grasping the essential, memorized details, etc.

8. The rhythm test

It determines the spontaneous tempo and the reproduction of rhythmical structures.

Materials: a metronome, a chronometer and a pencil. The metronome is activated at a certain time interval. The child is asked to grab a pencil and hit it against the table on the rhythm of the metronome. Not harder, not weaker, not faster, not slower. Go! After 21 hits, tell him: Stop! The execution time is jotted down, together with eventual accelerations, slowing downs, interval irregularities, weakening, and intensifications. The test identifies rhythm disorders in the case of the stuttering children

9. The filling in the lacunae test.

The children are asked to complete the sentences. Example: The spring is... The children are playing.... A noise is...

The test can be oral or written and aims at:

the correct completion of the sentence;

- vocabulary enrichment;
- linguistic imagination;
- penmanship, spelling .

10. Hearing testing (whenever necessary). One may also use: vocabulary tests (antonyms, comparisons). It should be mentioned that the order of the test is at the examiner's choice.

Starting from the proposed tests for examining the oral language for small children diagnosed with autism, we propose the introduction of the game in therapies such as ABA, AIT, DENVER, DTT, PECS, TEACCH, etc.

### **3. The Game – an Effective Therapeutic Means in the Development of Communication and Socialization for Autistic Children**

The game is an excellent means of activating the cognitive potential, of creative stimulation of language and psycho-social integration, by first and foremost modelling the child's personality. It is also the fundamental element in the psychomotor, sensorial, intellectual and socio-affective development of the small child.

The use of game in the learning and language acquisition activities aims at: checking the vocabulary quantitatively and assessment of the degree of understanding notions; checking the child's ability to make analogies by opposition; checking the child's generalization ability, his (her) degree of acquisition of varied notions and the possibility to relate these notions to their integrating categories; the formation and consolidation of word use, but also the affective involvement in social relationships.

#### **3.1. The Didactic Game in the Educational Activities for Language Acquisition in the Case of Autistic Children**

Language development in the case of small children with autistic spectrum disorder involves motor activities with a ludic component, and aims at the formation of a cognitively and socio-affectively balanced profile. The game plays an important part in:

- development of the skills of correct, coherent speaking;
- enrichment and activation of language and creative thinking;
- development of dialogical language;
- the formation of habits of adequately and meaningfully expressing thoughts;
- the gradual transfer from concrete to contextual language, while the child goes beyond the limits of the sensorial experience.
- the gradual acquisition of the grammatical structure of the mother tongue in speaking practice;
- vocabulary enrichment under constant communication with the people around;
- the prevention and correction of mispronunciation in small groups (2-3 children) or individually.

In the following lines, we will recommend a few games which can stimulate the expressive and receptive language.

**General educational objective:** Education towards phonetically, lexically and syntactically correct utterances.

**Reference objective:** the children will take part in individual and group activities both as a speaker and as a listener.

**Game: Say my name!**

**The aim of the game:**

- to correctly name the hygiene objects presented naturally (in 3D) and as images;
- to correctly split words in their syllables;
- to make up simple sentences.

**Didactic tasks:** to identify the hygiene objects (expressive language) by correctly naming them; to split the indicated word in syllables.

**The rules of the game:** The children will name the objects at the imperative: Say my name! and then will split the indicated words in syllables.

**Game elements:** dialogue, applause, social and actual rewards

**Teaching aids:** soap, towel, toothpaste and toothbrush, hairbrush, shampoo, paper tissues, photographs of some hygiene objects.

**How to play:**

The educator or therapist presents each hygiene object and asks the children with autistic syndrome to name them when they hear the request Say my name! Then the children are asked to split in syllables the words corresponding to each identified object.

Variant: The children pick an image, name the object and make up a grammatically correct sentence with the corresponding word. Assessment: Actions which use these objects will be performed.

**Game: Complete it with the missing part!****The aims of the game:**

- to check the communication ability by using the contents of a story or poem known by the children (the texts will be introduced succinctly);
- to stimulate attentiveness;
- to actuate the vocabulary.

**Didactic tasks:** to carefully listen to the text interpreted (timeframe should be specified – short intervals, as the autistic children have limited attentiveness); to remark the missing word or phrase in the utterance; to complete the text by identifying the missing word(s).

**The rules of the game:** The children carefully listen to the text and, when a word is missing from a role, the appointed child must say the word when s/he hears the imperative: Complete it with the missing part! (It is important that the imperative sentence also contain the child's name so that the name awareness occurs.)

**Game elements:** loud or colourful objects, puppet theatre, social and actual reward.

**Game: Who is he and what is he doing?**

It stimulates the expressive language for 3-4 year old children. This game aims at vocabulary activation: various words designating beings are associated with their specific actions. Images of animals and birds are used. The autistic child is required to discover a number as big as possible of actions. e.g. The dog – it barks, it bites, it chews bones. The cat – it meows, it catches mice, it scratches. The sparrow – it tweets, it hops, it flies, it plumes.

**4. Conclusions**

Besides the language therapy activity, the autistic child must also benefit from activities of formation of personal autonomy, of awareness of the environment, socializing and vocational activities, physical therapy, game therapy, etc. All these interventions should be effectual to various extents, based on the physical and psychic qualities of the autistic child.

The alarming rate of autism incidence and prevalence, as well as the impossibility to prevent it in the absence of the actual knowledge of its causes, the diversity of

symptomatology, the precarious social integration and the multitude of complex, individualised therapies applied according to the affection degree of the five developmental areas, which do not provide the possibility of accelerating the progress of the autistic child, make us leave this study open to interpretations and improvements and, what is more, support the constant promotion of the most effective psycho-pedagogical intervention programmes.

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