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## Narrative Competence by Pupils of Developmental Coordination Disorder

### ABSTRACT

Diagnosis of developmental coordination disorder can be accomplished by evaluating the narrative skills that reflect the knowledge of the world embedded in the human mind, i.e. the way of cognitive representation of the world. The need for rapidly responding to stimuli, inscribed in the phylogenetic development, is associated with the formation of different systems of information processing. The article contains an analysis of the narrative competence of pupils with developmental coordination disorder.

**Key words:** developmental coordination disorder, narrative skills, narrative competence.

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The Aristotelian definition of a human denotes a being that has a logos. Logos means reason but it also means language, word, speech. While learning to speak we get to know the world, assimilate it, and name it. Hans-Georg Gadamer emphasizes that in speech, in language “real being consists in what is said in it. What is said in it constitutes the common world in which we live (...) The real being of language is that into which we are taken up when we hear it – what is said” (Gadamer, 1979, 53). The presentation in language – of events, ideas, or emotions involves action that serves to collectively exchange experiences and form relationships<sup>1</sup>. In this interpretation, verbal action associated with the interaction context is connected with the category of narrative.

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<sup>1</sup> Psychological and cultural conceptions of narrative emphasize that a narrative is co-created socially; socio-cultural experiences provide ready-made scenarios of conduct, their interpretation being of collective character. Cf. J. Trzebiński, 2002, S. Grabias, 2004, Ch. Baker, 2005 et al.

The category of narrative and the narrative view of the world has become not only influential and broad but also interdisciplinary in the last decades. It has brought new discussion on the condition of the human being and the specificity of contemporary culture, strengthening the conviction that so-called identity is only a certain construct while the constructing of it in the process of self-understanding is precisely of narrative character<sup>2</sup>.

## THE CONSTRUCTIVE CHARACTER OF COGNITIVE REPRESENTATIONS

The structuring of knowledge of the external world results from cognitive processes on the basis of which a human creates certain patterns of conduct expressed in narrative form (Dziob, 2010, 3). Narratives, Trzebiński points out, are mental forms of understanding the world that structuralize experiences through the development of cognitive representations in the mind, popularly called “reflections” of objects, phenomena or states that make up reality (Trzebiński, 2002, 17). What’s important, cognitive processes and their products have a different form of interpreting external data and different capabilities of generating them by the mind (Trzebiński, 2002, 18). Certain interpretive rules are contained in the biological structure of the sensory organs (Trzebiński, 2002, 19) and determined by individual abilities to adapt them. Although every individual has relatively constant interpretation rules, yet the readiness to gather them determines the quantity and quality of acquired data and their processual character. The inability to narratively structure experiences in the life spheres important to an individual always adversely affects his/her functioning because it both limits the individual’s memory resources and does not develop his/her operational knowledge (cf. Trzebiński, 2002, 22). The cause of this condition can be the lack of or too few situations in which an individual can acquire new experiences. The achievement of social maturity involves developing the ability to communicate, share one’s personal experiences to exchange them and improve oneself both in individual life and life in a community of experiences.

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<sup>2</sup> Narrative is an extremely attractive category for different fields of science, in which it is differently interpreted. In the most general perspective, narratives should be deemed elementary forms of cognition because it is them that events and experiences consist in, owing to which a human being experiences the world and gives it a sense. Cf. literature and language, e.g.: J. Culler, 1998, A. Burzyńska, 2004, Przybyła 2004, logopedia, e.g.: S. Grabias 2001, 2015; psychology, e.g.: J. Trzebiński, 2001; B. Bokus, 1988, 2000; M. Kielar-Turska 2018 and many others. In such a perspective, narratives should be considered as elementary forms of cognition because they encompass events and experiences, owing to which a human being experiences the world and gives it a sense.

## EARLY NARRATIVE EXPERIENCES

A person gathers experiences by interacting with different subjects. As s/he reaches biological maturity, the child gradually develops his/her narrative competencies, from non-verbal messages, to different socially and culturally acceptable forms, to using increasingly complex verbal messages.

Between the age of 2 and 10 the child begins to improve him/herself in understanding and producing stories, one of the earlier and more creative forms of activity (Bokus, 1988). As Stanisław Grabias emphasizes, this great diversity of verbal behaviors coinciding with the first years of the child's life (from first shorter dialogic utterances) is accompanied by his/her improvement in acquiring the most advanced narrative form – the organized monologic utterance (Grabias 2015, 22). The early years entail the intensive development of narrative competence: during this period, children learn to produce and understand increasingly complex and temporally structured plots that may embrace many different themes and different characters (Wales, Shugar, Bokus, 1988, 21).

Narrative competence, Hanna Nadolska maintains, is “the knowledge of the essence and structure of narrative, its basic functions and stylistic categories, which manifests itself in a complex linguistic skill associated with constructing narrative utterances with specific generic features in accordance with linguistic norms in force and appropriately for the situation (Nadolska, 1995, 43). Furthermore, narrative competence, which is a tool that enables understanding one's own experiences, and communication with the world, manifesting itself in the ability to understand, reconstruct and produce narratives, is based on extended social and linguistic knowledge. That is why it is necessary to carry out preventive measures whose formula should stimulate different areas of the child's functioning.

## THE GOAL AND ORGANIZATION OF RESEARCH

Recent decades have brought a new approach to the questions of how children and adolescents cope with narrative material (Nott-Bower, 2018, 69–81; Petersen, Brown, Ukrainetz et al., 2014, 67–86; Petersen, Spencer, 2016, 6–19).

Researchers stress a decline in the narrative competence of the youngest language users and postulate the need to introduce educational forms developing<sup>3</sup>

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<sup>3</sup> An example of a study concerning narrative language intervention can be the *Story Champs* program designed and developed by Douglas Petersen and Trina Spencer (2016). In Poland, a significant measure was the Council of Ministers Resolution of 6 October of 2015 setting up the long-standing National Program for Reading Development, inter alia a public initiative “ABCXXI – All of Poland Reads to Children”. The current core curriculum of preschool education has taken account of the aspects related to supporting the narrative development of children. Cf. Decree of the National Education Minister of 14 February 2017 on the core curriculum of preschool education and the core

both knowledge of narrative, and classes in improving narrative competence (Soroko and Wojciechowska, 2015, 211–236; Rostek 2018, 85–96). For it is important that children should have more extensive knowledge of narrative, and create narratives with clearly marked, causally related event sequences (Kielar-Turska 2018, 71–82.)

A group especially at risk of difficulties in acquiring narrative competence and having serious problems in learning the ability to read and write is schoolchildren with special educational needs, including those with developmental coordination disorder (dyspraxia). During corrective-compensatory classes conducted in 2017 in one of primary schools in the Silesian province, five pupils (three girls and two boys, aged 11) with neurologically diagnosed dyspraxia tried to improve their narrative techniques. As part of every-week classes with the pupils, classes in creative text reading were introduced, the content of readings were analyzed including the discussion on the sequence of events, and narrative competence was developed systematically, inter alia through educational games, primarily “Dixit” and “Cubes story”<sup>4</sup>, thanks to which the abilities to present events, and tell them in their chronological and causal relationship using appropriate linguistic features that dynamize the plot (=action), were progressively improved. There were also grammatical and stylistic exercises and exercises developing the use of different semantically similar parts of speech to add syntactic variety to utterances.

## DEVELOPMENTAL COORDINATION DISORDERS (DYSPRAXIA) – AN OUTLINE OF ISSUES

The physiological maturation of the central nervous system and sense organs as well as their mutual integration led to the organism achieving increasingly complex activities. In the case of the occurrence of the dysexecutive syndrome in a complicated biological system, which is the nervous system, abnormal psychomotor development is indicated as the underlying cause. It results in the developmental disorders of motor functions (abnormal stretch reflexes and balance reactions and inadequate changes in muscles tonus in their anti-grav-

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curriculum of general education for primary school (Dz. U. [Journal of Laws] of 2017, item 356); the Standardized Tools for Utterance Evaluation (SNOW) have also been devised (Smoczyńska et al, 2015).

<sup>4</sup> Dixit is an association game for 3-6 players. Its author is Jean-Louis Roubira. For more information, see <http://granapare.wordpress.com.2013/04/28/bajeczne-ilustracje-i-skojarzenia-dixit-recenzja/> [accessed 20 Nov. 2018].

Story Cubes was invented by Rory O’Connor from Ireland, a coach of creativity and creative problem solving, source: <http://www.storycubes.pl/> [accessed 20 Nov. 2018].

itational action)<sup>5</sup> and in difficulties in cognitive processes associated with the control of behavior and thinking in the broad sense, in memory disorders and in problems with controlling emotional reactions (Mass 1998, Platt, 2015, Przybyła 2016 a), 2016b), 2018).

Developmental coordination disorder is a diagnostic entity. In Poland – according to the ICD-10 classification – the official name is “specific developmental disorders of motor function” whose scope covers: developmental dyspraxia, developmental coordination disorders, “clumsy child” syndrome (F 82) and is classified as a developmental disorder and can change with age: in some cases difficulties in coordination may continue until adolescence, and frequently occur in adulthood (cf. International Statistical Classification of Diseases... 1994). Underlying the disorder are first of all the problems with coordination in complex activities involving multimodal integration and requiring quick and precise action.

Developmental coordination disorders have a considerable influence on the pupil’s functioning at school. The state of the progression of motor maturity is connected with “the abilities to control movements and entails the possibilities of creating mental action programs” (Czabański, 2000, 50), including the achievement of maturity in organizing and producing verbal utterances. That is why it is reasonable to carry out exercises that develop and perfect the narrative competence of pupils with specific developmental disorders of motor functions.

### NARRATIVE COMPETENCE OF PUPILS WITH DEVELOPMENTAL COORDINATION DISORDERS (DYSPRAXIA) – EXEMPLIFICATION

Taking account of the fact that developmental coordination disorder is accompanied by difficulties in cognitive functioning, classes were planned and conducted for the purpose of evaluating pupils’ narrative competence in producing oral narratives based on excerpts from literary texts discussed during therapy <sup>6</sup>.

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<sup>5</sup> For more on the problem see O. Przybyła O., 2016 a), *Zaburzenie rozwoju koordynacji – dyspraksja. Przegląd badań. „Logopedia Silesiana”* t. 5, 227–248; Eadem, 2016 b), *Studium przypadku dziecka z zaburzeniami motorycznymi o podłożu sensorycznym, „Logopedia Silesiana”* t. 5, 357–390; Eadem, 2018, *Trudności w czytaniu i pisaniu dzieci z zaburzeniami motorycznymi o podłożu sensorycznym, czyli uczeń z dyspraksją na lekcjach języka polskiego. “Z Teorii i Praktyki Dydaktycznej Języka Polskiego”* t. 27, 139–162.

<sup>6</sup> The research sample involved telling three stories for the following themes: “I’m going to tell the scene of the killing of Shere Khan” (R. Kipling “The Jungle Book”), “I’m going to tell about the saving of Mrs. Aouda” (J. Verne “Around the World in Eighty Days”), “I’m going to tell the story of how Staś and Nel found an elephant” (H. Sienkiewicz “In Desert and in Wilderness”). The classes were held individually, the narratives being recorded and written down for research purposes.

The evaluation of the narrative competence of pupils with developmental coordination disorder examined the degree of complexity of utterances in accordance with the pattern developed by Grażyna Krasowicz (1997, 91–92) that entailed: 1) identification of characters; 2) location in time; 3) location in space; 4) defining the basic plot (action); 5) indication of solution (Table 1).

Table 1. Specification of the occurrence of the elements of superstructure in the narratives of the pupils with developmental coordination disorder (dyspraxia)

	Narrative 1	Narrative 2	Narrative 3
Identification of characters participating in the action	5/5	5/5	5/5
Introduction of time	4/5	5/5	5/5
Introduction of place	4/5	4/5	4/5
Introduction of the background	3/5	5/5	4/5
Solution of the problem situation	5/5	5/5	5/5
Conclusion	4/5	3/5	5/5

Source: Own data.

The first utterances in the pupils' narratives under analysis were expanded simple sentences. Their goal was to impart introductory information on the main character/characters in the events described and indicate the reading text from which the particular character/characters come, e.g. *Pani Auda jest to jedna z bohaterów powieści "W 80 dni dookoła świata"* (Gabriela); *Shere Khan to jeden z głównych bohaterów w powieści R. Kiplinga. Shere Khan to zły tygrys, który chciał zabić Mowglię. Kuleje on na jedną nogę.* (Marzena), Staś and Nel are the main characters in the novel by Henryk Sienkiewicz "In Desert and in Wilderness". Next, time was specified by using complex sentences, e.g. *Kiedy Mowgli pasł bydło, zrobiło mu się gorąco i usiadł w cieniu i zasnął a bawoły pasły się spokojnie wokół niego* (Dominik); *Pewnego dnia dziewczynka bawiąc się...* (Gabriela).; *Pewnego razu Nel ...* (Marzena). Then, the location of events in space was shown.

The narrative texts consisted of several or over a dozen events which, when combined, formed one theme concerning the story of the main character/characters. The events in the narratives presented by the pupils had a chronological order with the maintained sequence of happenings, which was evidenced by the use of vocabulary that emphasized the temporal sequence expressed by adverbs (*następnie* – next, *kiedy* – when, *wówczas* – then/at the time, *gdy* – as) or prepo-

sitional phrases (*w momencie* – the moment, *po chwili* – after a while, *w chwili* – as, when) in compound-complex sentences, e.g.: *Po paru sekundach zauważył biegnące stado bawołów* (Marzena); *Kiedy już wróciła do domu...* (Katarzyna); *Gdy zaszło słońce ...* (Gabriela); *W momencie ujrzał...* (Dominik); *Po chwili rozeszli się...* (Arkadiusz).

The pupils also presented events that followed in succession by means of conjunctions typical of the complex sentence syntax. They made the plot dynamic by using simple or compound coordinate sentences. Examples of the use of conjunction “i (and)” which connects the constituent sentences in a complex sentence or equal sentence parts are: *Mowgli podbiegł do niego i obdarł go ze skóry* (Arkadiusz); *Tam na skale Narady tańczył i śpiewał na skórze Shere Khana* (Gabriela); *Wziął panią Aude na ręce i dał na słońca* (Marzena). To emphasize temporal relationships and causality the pupils usually employed complex sentences. Characteristic of the utterances was the frequent use of the conjunction “gdy – as, when”: *Pewnego dnia, gdy chłopiec pilnował byków* (Gabriela), *Gdy Fogg i Obieżyświat jechali na słoniu, to usłyszeli jakieś okrzyki i poszli zobaczyć, co tam się dzieje* (Katarzyna); *Gdy zniknął dym, zobaczyli słońca i pomyśleli, udało się* (Dominik). The other conjunctions, “więc – so”, “ale – but”, “że – that” “aby – so that, in order that”, “lecz – but, yet”, “ponieważ – because/as/since” were utilized much less often in the narratives, e.g.: *Namówił stado bawołów, aby stratowały Shere Khana* (Arkadiusz); *Wędrując, bał się wiedząc, że w pobliżu grasuje Shere Khan* (Dominik). In the narratives many compound-complex sentences appeared which consisted of more than two constituent sentences, e.g. with conjunctions “ale/ but” and “aby/so that”: *Kobieta była jeszcze żywa, ale jej mąż nie żył, nieśli ich do świątyni, aby ich spalić* (Marzena). Conjunctions “ale/but” and “lecz/yet, but” are equivalent to each other and combine two equal sentence parts or constituent sentences in a compound sentence. They most often served to express opposites or contrast, e.g.: *Dzieci chciały zwiedzić okolicę na następnny dzień, lecz padał deszcz* (Arkadiusz). In almost all narratives by the pupils the prevalent element was hypotaxis. The development of the action also showed stylistic factors serving to stimulate and dynamize the pace of the action. Practically in all the narratives the adverb *nagle* – suddenly was present, and it usually began sentences, e.g. *Nagle usłyszeli huk* (Dominik); *Nagle poczuł, że zbliża się do niego* (Gabriela). By placing the adverb *nagle* at the beginning of a sentence, the pupils introduced dynamism, thereby showing that something happened surprisingly and unexpectedly. The dynamism of utterances was also achieved by means of: a) movement-naming words e.g.: *podbiegł, przewrócił się, biegł, potknął się, skakał, odwróciła się, przeciskała się, wyleciały, wskoczyła, uciekła, wypuścił, etc.*; b) onomatopoeic words e.g.: *huk, pohukiwanie, miauczenie, szelest*; c) exclamatory utterances e.g.: *Są uratowani!* (Gabriela); d) short declarative sentences, e.g.: *I tak się stało!* (Dominik); *Tak zrobiła* (Gabriela); *Szli przerażeni* (Marzena).

Words denoting movement often appeared in all the narratives, they were frequently used not very far from one another, owing to which the pupils achieved the increased tension of the action e.g.: *Nagle skręca, biegnie bardzo szybko. Staś łapie za rękę Nel, skręca na polanę* (Katarzyna). In contrast, onomatopoeic words, exclamatory utterances and short declarative sentences seldom appeared (they occurred barely in several narratives by the pupils).

In most narratives their endings expressed the pupils' own opinions on the presented events and were connected with the stories the pupils described. There were also sporadic conclusions not related to the subject matter of the narrative. Wishing to emphasize that these opinions were theirs, the pupils used the present tense and verbs in the first person singular (I think, I would like, I consider/believe) or the personal pronoun "I (*ja*)" (Table 2).

Table 2. Specification of the endings in the narratives of the pupils with developmental coordination disorder (dyspraxia)

Name:	Narrative 1	Narrative 2	Narrative 3
Gabriela	–	<i>I would also like to experience such an adventure but with my best (female) friend.</i>	<i>Staś did the right thing and Nel should be glad that he saved them.</i>
Katarzyna	<i>It appears to me that Shere Khan was a stupid tiger.</i>	–	<i>I liked this excerpt best.</i>
Marzena	<i>I think that Shere Khan is a stupid and thoughtless tiger</i>	What I liked very much was that they saved Mrs. Aouda, because she was to die by fire	<i>I think that it would be impossible to experience such an adventure in the real world.</i>
Dominik	I've told this story because it teaches us that good wins and evil loses.	This way Mrs. Aouda was saved thanks to Phileas Fogg and John [Jean Passepartout]	I think it was a beautiful and moving moment. Nel also cried but she accepted her fate.
Arkadiusz	<i>This adventure is important because there is a lot of action there, and good wins.</i>	–	In my opinion this adventure was important. Nobody knows what would have happened with the children without the elephant

Source: Own data

In the analysis of the narrative texts produced on the basis of the excerpts from the literary texts read and discussed with the pupils, the procedures proposed by Barbara Bokus were chosen that included: a) reference situations; b) the narrative line: temporal alignment of events – investigation of the rational way

of ordering events or logical competence; c) the narrative field: the sum of reference situations of different subjects (characters); d) narrative space: all narrative fields of a given narrative utterance; e) landscape of action: description of the actions of the character; f) mental landscape (consciousness landscape): the ability to animate characters and bestow mental properties upon them (Bokus 1991, 58–60; 2000).

In the narrative “I’m going to tell about the scene of the killing of Shere Khan”, 12 reference situations were distinguished. Their implementation after having read and analyzed the reading text is as follows (Table 3):

Table 3. Reference situations in narrative 1: “I’m going to tell about the scene of the killing of Shere Khan”

	Reference situations created by the pupils	Gabriela	Katarzyna	Marzena	Dominik	Arkadiusz
1.	Mowgli minding/pasturing the cattle			+		+
2.	Mowgli persuading the buffaloes to help	+			+	+
3	Mowgli’s wanderings	+	+	+	+	
4.	Mowgli letting the bulls out	+		+	+	+
5.	Running away from the tiger Shere Khan	+	+	+	+	
6.	Mowgli’s battle with Shere Khan	+	+	+	+	+
7.	Shere Khan’s death	+	+	+	+	+
8.	Mowgli after the tiger’s death	+			+	+
9	Mowgli and his friend Natahoo	+	+		+	+
10.	Mowgli on a rock	+		+	+	+
11.	Mowgli goes back to the jungle	+	+	+	+	+
12.	Mowgli and the hunter			+		+
13.	The total number of reference situations	7	9	9	10	10

Source: Own data.

The narratives of the pupils have an extended narrative line and consist of 14 reference situations concerning the majority of the characters in the story. In their utterances, the pupils mostly indicated the elements of narrative space. The landscape of action strictly referred to the presented events. The dramatic story contributed to the pupils taking into account the experiences of the main hero (the appearance of mental landscape).

The second narrative told by the pupils described the events connected with the saving of Mrs. Aouda (Table 4).

Table 4. Reference situations in narrative 2: "I'm going to tell about the saving of Mrs. Aouda"

	Reference situations created by the pupils	Gabriela	Katarzyna	Marzena	Dominik	Arkadiusz
1.	The situation of Mr. Fogg and Passepartout riding on an elephant through the jungle	+	+	+	+	+
2.	The situation of Mr. Fogg and Passepartout talking on the procession of the Hindus	+			+	
3	Mr. Fogg's situation, who wanted to save the woman		+	+	+	
4.	The situation of Passepartout sneaking up to the temple	+	+	+	+	+
5.	The situation of Passepartout and Mr. Fogg, who are saving the woman	+	+	+	+	+
6.	The situation of Mr. Fogg becoming friends with Aouda	+	+	+	+	+
7.	The situation of Mr. Fogg, Passepartout and Mrs. Aouda travelling together	+	+	+	+	+
8.	Passepartout's situation, who walked into the temple with the shoes on		+			
9	Mr. Fogg is worrying			+		
10.	Mr. Fogg and his friends travelling by train	+	+	+	+	+
11.	Passepartout and Aouda's escape	+	+	+	+	+
12.	The total number of reference situations	8	8	9	9	7

Source: Own data.

The pupils produced elaborate narratives related to the context of the reading text. The narrative utterances contain reference situations connected both with the two of the main characters and with Mrs. Aouda, which form a logical narrative line. Situations were indicated in the pupils' utterances which (situations) supplemented the narrative field affecting all the characters, as were the situations that made up the narrative space (e.g. the action in the temple, travel by train, relationships between the characters: Fogg, Passepartout, Mrs. Aouda, and friends on the train). The tellers of the stories pointed out the emotional states, plans, and intentions of the characters, thereby defining the mental landscape.

In the third narrative the pupils focused on presenting one of the adventures of Staś and Nel, concerning King the elephant.

Table 5. Reference situations in narrative 3: "I'm going to tell the story about how Staś and Nel found the elephant"

	Reference situations created by the pupils	Gabriela	Katarzyna	Marzena	Dominik	Arkadiusz
1.	Staś and Nel find an elephant	+	+	+	+	+
2.	The elephant named by the children	+	+	+	+	+
3	Nel feeding the elephant	+	+	+	+	+
4.	Nel playing with the elephant	+	+	+	+	+
5.	Nel despairing over the elephant		+	+		+
6.	Staś's idea of freeing the elephant	+	+	+	+	+
7.	The children after they freed the elephant	+	+	+	+	+
8.	The children seeking shelter	+	+	+	+	+
9_	Nel becoming friends with the elephant	+	+	+	+	+
10.	The children taking care of the elephant	+	+	+	+	+
11.	The children save the elephant	+	+	+	+	+
12.	Staś and Nel travelling across the desert	+	+	+	+	+
13.	Staś gathering gunpowder	+	+	+	+	+
14.	The children's further journey	+	+	+	+	
13.	The total number of reference situations	13	14	14	13	13

Source: Own data.

The pupils created a total of fourteen reference situations that made up the narrative line. The main actors/subjects in their narratives were Staś and Nel, and the additional actor/subject that was also present both in the landscape of action and in the mental landscape was King the elephant. In the pupils' narratives, the reference situations make up the narrative line that is correctly conducted. The temporal sequence between events is maintained, which is created by adding successive events in order. The events are connected based on cause-and-effect relationships, owing to which the narrative is coherent. Cohesion in narratives has its indicators both at the grammatical and lexical levels. The pupils use exact lexical repetitions: *Nel bardzo zaprzyjaźniła się ze zwierzęciem i nazwała go King. Dzieci opiekowały się Kingiem, dokarmiły go*, and inexact ones (hyperonyms and hyponyms): *Dzieci szukając schronienia przed nadchodzącym deszczem, zeszli do wąwozu w którym okazało się, że jest uwięziony słoń. Nel bardzo zaprzyjaźniła się ze zwierzęciem i nazwała go King*. In the foregoing example, means of grammatical cohesion are also used such as personal pronouns and the implied subject with a personal verb ending.

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The multifaceted difficulties between the brain and language have their causes in the sphere of abnormal perceptual experiencing, which is essential both in the functioning in terms of verbal communication and in the case of learning it. The irregular working of any of the perceptual systems directly translates onto the state of cognitive representation because “many language problems are special cases of problems of the mind” (Kotampka-Minc, 2004, 35).

Development of narrative competence requires taking account of biological criteria, particularly functional and perceptual, because it is on their basis that conceptual structures develop correctly. As Kazimiera Krakowiak emphasizes: “a human is born as a being that is biologically adapted to acquiring information through senses, but at the same time as one with the ability to process it in categorical-symbolic i.e. logical-linguistic terms” (Krakowiak 2012, 29). In the case of desynchronization in the organization of sensory data processing, pupils with developmental coordination disorder require systematic therapeutic support in order to develop narrative competence. The conducted analyses allow the conclusion that as a result of treatment, there is a visible increase in the level of the studied pupils' narrative competence in planning and constructing utterances, in arranging events in the narratives into a successive logical sequence, in placing the characters in the narrative space, and in telling about their actions, plans, and emotions.

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