





PROBLEMS AND PERSPECTIVES **OF CONTEMPORARY EDUCATION**



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DEFINITIONS AND DEFINING AS INDICATORS OF THE LANGUAGE DEVELOPMENT OF PRESCHOOL CHILDREN¹

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INTRODUCTION

It is assumed that the basis for acquiring language and speech is formed as early as during the intra-uterine development at the time of neuron migration (Piatelli-Palmarini, 1989), whereas the most productive period of language development occurs simultaneously with "the intensive processes of central nervous system structuring, which is the period from birth to the fourth year of life" (Lazarević, 2015: 26). A child's further language development implies both more complex oral expression and more complex contents (Lazarević, 2015). Besides, acquiring the meaning of words is a dynamic process in which a child actively constructs, deconstructs, and reconstructs certain meaningful relations between words, phrases, and clauses.

In terms of broader language understanding, knowing that language competence is significantly enhanced at preschool and early school age, analysing the process of understanding meaning in the educational context is particularly relevant. Namely, the ability to understand the meaning of words and sentences is an important determiner of language development, but it also points to the degree of development of the ability to learn. By the time a child starts going to school, he/she has learnt to speak, acquires extensive vocabulary, starts using basic

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syntactic constructions as well as the majority of grammatical rules, whereas a child usually learns to read and write after starting school (Lazarević & Šefer, 2009). Kašić emphasises that more complex elements at all language levels are acquired after the age of five and that early school age is "the time of rapid development of the language competence at the syntactic and semantic levels of the language structure (Kašić, 2002: 113).

Adequate semantic development is necessary for mastering other language levels (Stevanović & Lazarević, 2014), which is also confirmed by research findings. Not only is the lexical dimension important for language development, but it also significantly affects reading ability as well as overall academic achievement (Baumann, Kame'enui, & Ash, 2003). Moreover, according to some authors, not being able to recognise the meaning of words can impede reading ability (Carlson, Jenkins, Li, & Brownell, 2013; Silva & Cain, 2015; Yopp, Yopp, & Bishop, 2009). Also, it is thought that acquisition and enrichment of active and passive vocabulary stimulate (enhance) metacognitive activities (Nagy & Scott, 2000), whereas some other authors emphasise that the ability to acquire polysemy (multiple meanings of a word), as one of the types of metalinguistic awareness, is directly linked with vocabulary and reading comprehension (Stahl & Nagy, 2006).

It has been proven that metalinguistic ability correlates with cognitive development, especially with metacognition and oral and written language (Benelli, Belacchi, Gini, & Lucangeli, 2006; Hakes, 1980; Menyuk, 1984; Smith & Tager-Flusberg, 1982). It has also been established that metalinguistic skills facilitate education (Benelli at. al., 2006) and that they are specially related to reading comprehension, i.e. reading competence and literacy (Tighe et. al., 2019; To, Tighe, & Binder, 2016). Moreover, their correlation with different types of school assignments has been confirmed on several occasions. Namely, different studies have indicated the positive effects metalinguistic awareness has on reading and writing abilities, as well as on the realisation of decontextualised 'academic' language assignments (Benelli et. al., 2006).

Metalinguistic awareness can generally be defined as an individual's ability to think about the language, manipulate its structural characteristics, and to treat the language as an object of thinking, rather than as a means for the production and comprehension of statements (Tunmer, Pratt & Herriman, 1984). Possession of metalinguistic awareness allows the focus to be redirected from meaning, i.e. the content of the message, to the form of its manifestation - the language

expression. Besides awareness of the word, "phonological, morphological, syntactic and pragmatic awareness are also regarded as components of metalinguistic awareness" (Moskovljević Popović, 2017: 12). "Metalinguistic awareness is of interest for two reasons: first, it predicts growth in literacy performance; second, it tends to be particularly weak in children with language impairments. Moreover, it increases with age and [with] reading skills" (Senechal, 2014: 372). Tighe and associates point out that empirical findings confirm that metalinguistic awareness has the greatest effect on reading comprehension (Tighe et. al., 2019).

In terms of language development at preschool and at early school age, the ability to define, which is directly linked, among other things, with the lexicalsemantic language level, is an important metalinguistic ability. "Definitions are a kind of judgement that either establishes a new piece of knowledge - as in the case of a new scientific discovery" (Benelli et. al., 2006: 72) - or renders already existing and shared information explicit (lexicographic or explicative definitions). In both instances, definitions establish a relation of semantic equivalence between a given term (the definiendum) and a linguistic expression (the definiens) that is a sentence containing the most relevant conceptual information about that term. 'A definition describes a word in terms of other words' (Kurland & Snow, 1997: 604). This means that a definition is a paraphrase in periphrastic form, and hence, it is a more complex and correct linguistic structure, which must not contain the same term it is supposed to explain (the no-tautology rule). Semantic equivalence takes the form of a copula (verbs, such as 'is', 'means', 'refers to') and essentially consists in the categorical identity of a stimulus-item (e.g. 'a dog is a domestic animal'; 'running refers to the action of moving forward very guickly', etc.) (Benelli et. al., 2006: 72). Furthermore, Hoff emphasises that formal definitions have a specific structure: they provide both superordinate category membership and distinguishing features within that category (Hoff, 2014). The author also states that the ability to define partly depends on the school experience of children and the fact that defining, i.e. the process of learning words in their context, implies the ability to identify all relevant information in the context along with the ability to combine all relevant signs and to use existing knowledge that will enable convergence towards the definition of a word.

Therefore, both in theory and in practice, we can say that definitions and defining are very important for the language development of children. By analysing their role in the school context, we can conclude that asking children to define

certain terms and phenomena is an integral part of education. From a theoretical point of view, definitions are an example of a decontextualised use of language, enabling comprehension and interiorisation of information, which correlates with the acquisition of new knowledge and enhancement of language competence and language development in general. Furthermore, giving adequate and complete definitions requires the analysis of one's own knowledge about the meaning of a word in order to distinguish "definitional" "from incidental information about the target concept, as well as control of the conventional form for giving definitions (a copula, a superordinate, a restrictive complement)" (Snow, Cancino, De Temple, & Schley, 1991: 90). Namely, in order to be able to give a good formal and complete definition, one must analyse everything known about the term, as well as separate vital from irrelevant information.

Younger children usually include in their definitions random idiosyncratic information which is extremely personal (Snow, 1990), but they can also improve their definitions by adding a superior term if encouraged to do so (Watson & Olson, 1987). Older children often demonstrate with certain words that they know which form the definition should have and they do not strictly respect limitations based on key information (Snow, 1990; Snow, Cancino, Gonzalez, & Shriberg, 1989). Comprehension and expression of formal definitions can be difficult for children aged 10 or 12 because it is possible that children at that age have not completely developed the ability to analyse their own words and concepts of knowledge (Snow et. al., 1991: 90).

The results of an international study show that the children of preschool and early school age find it harder to follow conventional rules while defining, but also that this metalinguistic ability does develop as children grow older (Nippold 1995; Snow, 1990). Other authors point out that, by the end of the fourth grade of primary school, children who attend programmes intended for pupils whose parents have low salaries give more complete definitions than they did in the kindergarten, as well as the fact that they formulate their definitions better than their mothers who did not go to school and who had a tendency towards a less formal approach (Kurland & Snow, 1997). Besides, the results of the research focusing on the ability to define words and levels of metalinquistic awareness of Italian children aged between 5 and 11 indicate that nouns and adjectives were better defined than verbs, that children defined concrete words more easily than abstract words, and they confirm that the metalinguistic ability and the level of education correlate

positively with the formulation of well structured formal definitions (Benelli et. al., 2006). The findings of research that, among other things, analyses the quality of formal definitions indicate that the percentage of more precise formal definitions increased from 49% in grade 2 to 79% in grade 5 of primary school (Snow et al., 1991). Another study confirms that children who attended the United Nations School in New York City, who had many different native languages but who received all their instruction in English, performed better on a definitions task in English than they did in their native languages (Snow, 1990). The results of the research investigating whether a one-time lesson on formal definitions would improve children's production of them are also interesting. The participants were children in grade 4, assessed as low readers. Findings indicated that the lesson resulted in significant improvements in form for nouns and verbs. Post-test, children increased their use of specific class terms, a critical aspect in the structure of formal noun definitions (Marinellie, 2010).

The research carried out in our country in relation to primary school pupils defining words shows that terms with connotative and affective meaning have a larger semantic field and more idiosyncratic words, whereas terms with learned and denotative contents are narrower in scope and the answers are more general. Also, it has been proven that older pupils give more varied answers: from the least developed to very precise ways of defining (Vasić, 1988). Besides, by observing which types of definitions are characteristic of certain ages of primary school children (from grade 2 to grade 8), Miočinović concludes that definitions of usage and descriptive definitions are characteristic of younger children, whereas logical definitions are characteristic of older pupils, but that none of them is characteristic of only one age (Miočinović, 1979). Also, the authors emphasise that transfer from one way of defining to another coincides with the stages of the thought development, meaning that it is in accordance with Piaget's theory of cognitive development.

According to our knowledge and available literature, issues related to the process of defining and definitions of children of preschool and early school age have not been the focus of empirical research in our country over the past three decades. Researchers' attention has mainly been focused on metalinguistic awareness and some of its components, such as phonological awareness (Colic, 2015; Colić & Vuković, 2018; , 1996; Lazarević, 2014; Moskovljević Popović, 2017).

The given statements and findings prompted us to conduct research with the aim of analysing language development from the aspect of defining as a dimension of metalingusitic awareness and an indicator of the lexical-semantic level of language. Namely, we have attempted: 1) to comprehend the level of development of the ability to define of preschool children, i.e. to establish which types of definitions occur at what age; 2) to comprehend the acquisition of the ability to define opposites of adjectives², and 3) to determine whether there is a gender effect in the development of these abilities.

This paper treats the word 'definition' as a lexical definition which means that language borders/limits and finalises the conventional meaning of a certain expression. Defining is the process of setting boundaries, determining the meaning of something, or determining the final meaning of the word which is being defined. This paper presents part of the findings of the first stage of the longitudinal study, which included individual surveys along with longitudinal follow-up of respondents within the period of three years, with the aim of establishing the link between the development of speech, language, metalinguistic, general cognitive and graphomotoric abilities of preschool children on one hand, and their success in learning to read and write at school age on the other hand. The obtained data on the language development of preschool children from the assessed aspects will correlate with their success in learning to read and write in grades 1 and 2 of primary school.

METHOD

The sample. Sixty-five preschool children aged 80 months on average participated in the research (AS=80,09; SD=3,11; Mod=80, Min=75, Max=88); these children were attending the preparatory preschool programme in state-owned and private preschool institutions in Belgrade. The sample was synchronised in terms of gender (51% of boys and 49% of girls) and in terms of the ownership structure of the preschool institutions: 52% were attending state-owned preschool institutions and 48% were attending private ones. The development of speech and language of the children who participated in the research was typical of their age and they did not know how to read and write. The intellectual level of children was

Analysis of the acquisition and development of the opposites of adjectives as a part of complex lexical relations between words is significant for the ability to define terms.

determined by applying the Test for the Examination of First-Grade Pupils (TIP-1) (Ivić, Milinković, Pešikan, & Bukvić, 1995) when enrolling these children in school.

The instrument. The assessment of the children's language development at the lexical-semantic level was conducted by using the Definition Test created by Smiljka Vasić (1991). This test assesses the course of speech and language development of children aged from 3 to 14. Children's answers provide data on the development of their vocabulary and the level of meaningful content encompassed by defined nouns (terms). The test consists of two parts. The first part includes five most frequent nouns taken from 'The Children's Dictionary' by Vera Lukić: mother, house, man, life, sun. The children answer the guestion "What is a mother?" and the examiner notes down the answers, which can be analysed at two levels. Following the instructions for the test assessment, answers are analysed and interpreted at qualitative and quantitative levels. The qualitative analysis of the answers in this test allows an insight into the process of defining and the nature of definition, whereas the quantitative analysis allows an insight into the number of words, the length of the sentence, and the frequency of parts of speech, i.e. the category-based structure at the syntactic and lexical levels of preschool children. Qualitative grades of defined nouns range from 1 to 8 (1 – omissions, 2 – echolalia, 3 – functional definitions, 4 – affective-literary definitions, 5 - descriptive definitions, 6 - incomplete category-based definitions containing a general term, 7 - incomplete category-based definitions containing a specific characteristic and 8 - complete category-based/logical definitions). In terms of complexity, each of these answers gets a certain number of points, which is the basis for the quantitative processing; the maximum theoretical score for all defined nouns (terms) is 40 and minimum 0 (0 points - no answer, 1 point echolalia, 2 points - wrong answer, 3 points - functional definition, 4 - affectiveliterary definition, 5 - descriptive definition, 6 - incomplete category-based definition/general term, 7 – incomplete category-based definition/a more specific characteristic and 8 points - complete definition containing the general term and a specific characteristic). However, children generally reach this score (40) at an older age: according to development norms, at the age of 11, which should be taken into consideration during data analysis. The second part of the test is the test of opposites of adjectives, which provides data on the creativity of children's vocabulary and indicates their level of semantic development. The test consists of four adjectives which are among the 50 most frequent adjectives in our language: big, good, black, and free. The children are asked, "What is the opposite of (big, good...)?" The answers are recorded and assessed from 0 to 5 (0 - no answer, 1 – echolalia, 2 – wrong answer, 3 – sigmatic answer, 4 – correct answer using a negation, 5 - correct answer).

The course of the research. Individual testing was carried out in separate rooms where only the examiner and the respondent were present. The test was not time limited. The time it took respondents to do the test varied, depending on a child's individual abilities but it was not longer than 10 minutes. Before the test, the respondents were given precise instructions and examples of how to do it and the testing itself started when respondents completely understood the way the test should be done. The testing was carried out with the consent of the parents of those children who participated, just before the preschool preparatory programme ended.

Data analysis. T-test, a descriptive statistical analysis (AS, SD, Min & Max, Mod), was used for data processing. The qualitative data processing implied a method of content analysis which referred to the category-based analysis of the definition. The respondents' answers, i.e. formulated definitions for nouns/items in the test, have been grouped into one of the following definition categories (by consensual agreement of researchers): 1 - omissions, 2 - echolalia, 3 - functional definitions, 4 - affective-literary definitions, 5 - descriptive definitions, 6 incomplete category-based definitions containing a general term, 7- incomplete category-based definitions containing a specific characteristic and 8 - complete category-based/logical definitions.

RESULTS

Data indicate that preschool children from our sample achieved 20.74 points on average, which at this age represents a high achievement, including answers with the highest grades in this test (AS=20,74; SD=5,14; Min 8,00; Max 32,00). Considering the fact that the maximum theoretical score is 40 points and that this refers to older children (at the age of around 11), the fact that respondents who participated in our research achieved up to 32 points indicates that the achievement was high and confirms the presence of completely logical definitions which are rare for children of this age. The analysis of the answers referring to individually defined terms was done by using indicators of descriptive statistics whose values are presented in Table 1.

Noun (term)	N	Min.	Max.	AS	SD
Man	65	1	8.00	4.11	1.61
Mother	65	1	8.00	4.46	1.63
Life	65	0	7.00	2.18	1.53
House	65	1	8.00	5.37	2.13
Sun	65	0	8.00	4.61	1.78

Table 1. Achievement by individually defined nouns (terms); Definition Test

According to the obtained data, preschool children had greatest success in formulating and defining concrete nouns (terms) house and sun, the affective and experience-based content of defined nouns mother and man contributed to their successful result, whereas the abstract noun (term) life was defined least successfully. The result of our research is in accordance with the results of earlier research related to younger and older school children' ability to define and they indicate that this ability depends on the acquisition of the meaning of the word (McGhee-Bidlack, 1991). Besides, nouns are better structured and integrated in the mental lexicon in comparison with other parts of speech because their meaning is often more concrete and vivid, which makes them easier to process cognitively (Nissen & Henriksen, 2006) and define. By further analysis, we wanted to gain insight into the quality of nouns definitions (Table 2).

Table 2. Qualitative analysis of definitions – the frequency of certain types of definitions for individually defined nouns (terms)

Defined		Types of definitions in %							Total %	
nouns (terms)	0	1	2	3	4	5	6	7	8	
Man	0	6.2%	13.8%	3.1%	49.2%	3.1%	18.5%	4.6%	1.5%	100
Mother	0	3.1%	4.6%	32.3%	3.1%	29.2%	16.9%	9.2%	1.5%	100
Life	1.5%	26.2%	60%	1.5%	0	0	7.7%	3.1%	0	100
House	0	1.5%	1.5%	26.2%	6.1%	7.7%	6.2%	40%	10.8%	100
Sun	1.5%	0	3.1%	36.9%	9.2%	7.7%	23.1%	16.9%	1.5%	100

The legend: Types of definitions: Omissions/0; Echolalia/1; Wrong answer/2; Functional definition/3; Affective-literary definition/4; Descriptive/5; Incomplete category-based definition containing a general term/6; Incomplete category-based definition containing a specific characteristic/7; Complete categorybased logical definition/8.

Children who participated in the research gave the most successful definitions of the concrete nouns house and sun. We were interested in which type of definition they had used. Definitions of the noun house were most varied in terms of their formulation (the largest standard deviation). Functional, affective and descriptive definitions account for 40% and they represent the dominant type of defining terms for younger children (Miočinović, 1979). However, according to our sample of preschool children defining this concrete noun, different types of logical definitions were dominant (64.7%). Further analysis of logical definitions shows that they were least applied (6.2%); they only contain a general term (example: The house is a place). The use of logical definitions containing a specific characteristic accounted for 40% of the sample (example: The house is where people live). When defining this noun, even 10.8% of respondents used completely logical definitions containing a general term and a specific characteristic (example: The house is a place where people live). According to qualitative analysis of the type of definition, the noun sun took second place by its level of successful defining. To define this noun, respondents used functional, affective and descriptive definitions the most (53.8%), which is expected at this age. However, even during the process of defining this noun, different types of logical definitions were applied to a large extent (41.5%). In terms of logical definitions, during the process of defining this concrete noun, respondents used an incomplete logical definition the most (23.1%) which only defines the general term (example: The Sun is a large hot star, it warms us), followed by a complete category-based logical definition (16.9%) which contains a more specific characteristic (example: The Sun gives warmth and light. It gives us energy); finally the complete logical definition (1.5%) which contains the general term and a specific characteristic (example: The Sun is a star which is the biggest of all other stars, it gives warmth and light. It sets before the moon comes and rises with a new day. It is like a change between the morning and the night). Obtained data about the use of different types of logical definitions indicate the gradual development of logical description. Defining logically definitions also depends on the development of opinion. According to Piaget, the seventh year of a child's life is considered the year when the operational stage of intellectual development starts. This stage is characterized by logical operations (actions occurring on the mental level) which refer to objects, their classes and relations (Pijaže & Inhelder, 1996.). The presence of logical definitions at this age can be attributed not only to the concrete nature and language features of the meaning of these nouns (terms),

but also to the experience, individual knowledge, and language characteristics of the children who participated in the research. Besides, examining the predictors which contribute to the development of the ability to define indicates that the influence of in-house circumstances, as well as the influence of school at an older age has been singled out (Kurland & Snow, 1997), which could be one of the reasons why our respondents achieved a very positive score. The result of this research also confirms the view that no definition is characteristic of just one age (younger or older) and that logical definitions occur at a younger age as well (Miočinović, 1979). The literature sources also point to individual differences in the development of the ability to define. Some children can reach a very high level very early, even at the age of 5-6 years, but their performance can remain at that level and later their ability to define may continue to develop slowly. However, some children at the age of 5-6 may have a low level of development of the ability to define, but this ability can later develop more intensively (Kurland & Snow, 1997).

When defining concrete nouns mother and man, functional, affective and descriptive types of definitions are dominant, which is the expected at this age. To define these two nouns, respondents used these definitions to a different extent. When it comes to the noun mother, respondents used functional and descriptive definitions, but when it came to the noun man, almost half of the respondents used affective and literary definitions (49.5%). When defining these two nouns (terms), there were some echolalia and incorrect answers for the noun mother and even more for the noun man. Affection and experience-based content of these nouns also contributed to the formulation of several different levels of logical definitions. When defining the noun mother, children formulated 27.6% logical definitions and they mostly used definitions containing a general term (example: A mother is a parent), followed by definitions containing a specific characteristic (example: A mother gave birth to you), but also a small number of completely logical definitions (example: Amother is a woman who brought you to this world. She is there to help her children gain self-confidence and courage). When defining the noun man, children defined it with logical definitions (24.6%) whereby they used definitions containing a general term the most (example: A man is a living being) with fewer definitions containing a specific characteristic (example: A man can speak a clear language and think), but also completely logical definitions (example: A man is a living being which is classified as an omnivore. It is very intelligent, it can speak and it has evolved from a monkey. Darwin's theory). The results presented in this article correlate to

some extent with the analysed works of foreign authors, i.e. they do not deviate significantly from the results stated in those research works. The results related to the ability to define of children aged 5-11 also point to the fact that children define nouns better than other parts of speech, and that they define concrete words more easily than abstract nouns (Benelli et. al., 2006; Kurland & Snow, 1997). Accordingly, there is an opinion that "the ability to define abstract nouns seems to be among the late developing metalinguistic skills just as understanding humour, metaphor and literary styles" (McGhee-Bidlack, 1991: 433).

The abstract noun life is a term which preschool children defined least successfully, which is expected because children at this age have difficulties with terms without empirical features. Our results are in accordance with other authors' results which indicate that the language skill of defining abstract nouns occurs at an older age (Vasić, 1988). Analysis of the quality of formulated definitions indicated the greatest presence of incorrect answers (60%) and echolalia (26.2%). The number of functional definitions was very small and there were no affective and descriptive definitions whatsoever. However, even though the defined term belongs to the abstract category, several logical definitions (10.8%) were recorded. There were also incomplete category-based definitions containing a general term (for example: Life is time) as opposed to incomplete category-based definitions containing a specific characteristic (for example: Life is from birth to death). There was a very small percentage of completely logical definitions (for example: Life is the time from birth to death). The obtained results point to the fact that children at this age can also define logical definitions, as well as the fact that every child can formulate a logical definition for one term and use other types of definitions to define other terms: descriptive, functional, or even an incorrect answer (Vasić, 1988). The results of other authors' research also point to this fact, suggesting that some children can define terms using the lowest and the highest categories of definitions, regardless of their age (Kurland & Snow, 1997). The quality of definitions of some terms/ nouns depends on many factors: age, environment, intelligence, experience of the speaker, as well as the meaning of the term being defined. A definition can refer to the thought referring to the essence of the object, to the content i.e. to the thought referring to the group of relevant characteristics, to types i.e. to the thought referring to the group of lower terms encompassed by higher terms (Vasić, 1988).

The quantitative analysis of defined nouns (terms) refers to determining the overall number of words children used to define terms, the frequency of some parts of speech, as well as analysis of the sentence by its structure and meaning; the average length of the sentence was determined by the number of words which children used to define the aforementioned nouns.

The total number of words children used to define the given nouns was 2.576. It is evident that some nouns (terms) were defined by using an almost equal number of words. The largest number of lexemes was used when children defined the nouns house, then mother, sun, life, while the smallest number of lexemes was used when they defined the noun man. The number of words in a definition does not necessarily indicate a good definition and a good-quality sentence. Only the right relation between the length of the sentence and the category of definition expressed in that sentence will produce a good-quality answer and a real picture of the language development of the respondent. An increase in the number of words used with age shows a constant tendency to develop and change the nature of a definition (Vasić, 1988).

The frequency of use of parts of speech is given in Table 3. Looking at the definitions of all nouns (terms) from the test, we can conclude that the parts of speech respondents used most are verbs, nouns, pronouns, adverbs and adjectives. They used prepositions, conjunctions, particles and numbers less. The part of speech preschool children did not use to define given nouns are interjections. Further analysis shows that the frequency of the use of certain parts of speech differs if each noun is analysed separately. When it comes to the noun house, the most frequent parts of speech are nouns, verbs and pronouns. When it comes to defining the noun *mother*, the most frequent parts of speech are verbs, pronouns and nouns. The most frequent parts of speech when defining nouns house, sun and life are identical: verbs, pronouns and conjunctions. Our data related to the frequency of parts of speech when defining the given nouns (terms) is in accordance with the results of a study conducted in our environment which determined the order and age of the first occurrence of certain parts of speech and the forms children use during spontaneous speech, as well as the frequency of certain parts of speech at an older age. According to this study, as children get older, they use nouns and verbs less because they start using other parts of speech, such as pronouns, prepositions, adjectives, and adverbs (Kostić & Vladisavljević, 1995). Furthermore, such sequence of parts of speech when defining given nouns (terms) in the language development of children who participated in research is not a coincidence; it is in accordance with the fact

that children had already formed grammatical structures up to the age of five and that after this age, their language development becomes more complex at all levels (Bloom, 2000; Kašić, 2002; Longobardi, Spataro, Putnick, & Bornstein, 2017; Tomasello, 2000), as well as with the fact that the use of different elements gradually diversifies without damaging previously acquired elements. Accordingly, the use of increasingly complex most frequent words (nouns and verbs) is related to the lexical and semantic development of children (De Houwer & Gillis, 1998; Longobardi, Rossi-Arnaud, Spataro, Putnick, & Bornstein, 2015).

When defining the given nouns, children used the type of sentence expected for their age considering the structure of the sentence, its meaning, and communicative function. Children formed both independent and dependent clauses. They used informative sentences, most of which were (by structure) simple, complex, and compound. They also created compound relative sentences where the link with the noun element was often formed by using the relative pronoun which or where.3 The frequent use of this relative pronoun in relative sentences, as well as the use of relative sentences in the language of children who participated in the research were expected. The use of clauses implies a higher level of syntactic development and greater syntactic maturity (Silva, Sanchez Abchi, & Borzone, 2010). Literature sources show that after the age of five a child gradually expands the repertoire of syntactic constructions, producing longer statements and understanding and producing many other things that he/she was not capable of before (Tolchinsky, 2004). Also, many language phenomena which occur before starting school have a long history of development (Berman, 2004).

The measures determining the external structure of a sentence include its length expressed in the number of words and the total number of clauses in it. They are actually indicators which refer to the communicative sentence as a basic text unit and to the fact that the length of the sentence can indicate the level of development of other levels of language as well, and not just the syntactic (Beers & Nagy, 2011; Jagaiah, Olinghouse, & Kearns, 2020). According to the average number of words (M) in a sentence, defined terms (nouns) were listed in the following order: mother - 8.6 words; house - 7.4 words; life - 7.2 words; sun - 7 words; man – 5.8 words. Therefore, we notice that concrete terms (mother and house) are

Kovačević thinks that the relative pronoun where in a relative clause is a very efficient communicative tool because with its meaning it denotes a semantic sub-type of an attributive relative clause (e.g. an attributive clause denoting the meaning of location) (Kovačević, 1987). Also, some authors emphasise that the category of location has a priority in children's speech (Radić, 2012).

defined with longer sentences, but that an abstract term life is also defined using an average number of words, which may indicate a more advanced general language development of the children who participated in the research. According to the available literature related to our environment, there are no data referring to the average length of a sentence of preschool children, but there are data referring to the length of statements of older school age children. According to foreign literature sources, individual variability is very high at all ages, despite the trend that syntax gets more complex in time (Nippold, Ward-Lonegran, & Fauning, 2005).

Table 3. Frequency of the use of parts of speech in the Definition Test

Parts of speech	Man	Mother	Life	House	Sun	Total
nouns	140	132	96	139	120	627
	(31,89%)	(24.67%)	(18.75%)	(25%)	(22.47%)	(24.34%)
verbs	112	157	157	153	138	717
	(25.51%)	(29.35%)	(30.66%)	(27.52%)	(25.84%)	(27.83%)
pronouns	68	156	90	106	117	537
	(15.49%)	(29.16%)	(17.58%)	(19.06%)	(21.91%)	(20,85%)
adjectives	65	21	14	15	47	162
	(14.81%)	(3.93%)	(2.73%)	(2.79%)	(8.80%)	(6.29%)
numbers	4	4	1	6	8	23
	(0.91%)	(0.75%)	(0.2%)	(1.08%)	(1.50%)	(0.89%)
prepositions	11	13	29	31	16	100
	(2.51%)	(2.43%)	(5.66%)	(5.58%)	(3%)	(3.88%)
adverbs	5	14	75	65	38	197
	(1.14%)	(2.62%)	(14.65%)	(11.69%)	(7.12%)	(7.65%)
conjunctions	21	28	27	22	24	122
	(4.78%)	(5.23%)	(5.27%)	(3.96%)	(4.49%)	(4.74%)
particles	13	10	23	19	26	91
	(2.96%)	(1.87%)	(4.49%)	(3.42%)	(4.87%)	(3.53%)
interjections	0	0	0	0	0	0
Total number of words	439	535	512	556	534	2576
	(17.04%)	(20.77%)	(19.88%)	(21.58%)	(20.73%)	(100%)

According to the second part of the test/the test of the opposites of adjectives, based on the results of descriptive statistics related to the level of semantic development (i.e. the acquisition of the opposites of adjectives of preschool children), children performed a high average achievement (AS=19,09; SD=1,76; Min 9,00; Max 20,00). The measures of the descriptive analysis of individually observed items (Table 4) and the qualitative analysis (i.e. the distribution of a child's achievement by the category of the answer (Table 5)) give us data indicating a high level of semantic development of preschool children. The obtained data referring to the acquisition of the opposites of adjectives indicate that children have completely acquired the opposite of the adjective big, almost completely the opposite of the adjective black (95.4% of correct answers), and lastly the opposite of the adjective good (80% of correct answers). Children formulated the opposite of the adjective free least successfully (66.2% of correct answers), but even in the case of this adjective, more than half of the answers were correct.

Table 4. Achievement by individual items – the test of the opposites of adjectives

Items	N	Min.	Max.	AS	SD
Big	65	5	5	5	0
Good	65	2	5	4.74	0.59
Black	65	0	5	4.85	0.75
Free	65	0	5	4.51	0.94

Table 5. Categories of children's answers by individual items – the test of the opposites of adjectives

Anamaratanaria	Items					
Answer categories	Big	Good	Black	Free		
0 - No answer	-	-	1 (1.5%)	1 (1.5%)		
1 – Echolalia	-	-	-	-		
2 - Incorrect answer	-	1 (1.5%)	1 (1.5%)	3 (4.6%)		
3 - Sigmatic answer	-	2 (3.1%)	1 (1.5%)	1 (1.5%)		
4 - Correct answer with a negation	-	10 (15.4%)	-	16 (24.6%)		
5 - Correct answer	65(100%)	52 (80%)	62 (95.4%)	44 (67.7%)		

According to the literature related to development norms, echolalia, incorrect, and sigmatic answers are typical of early preschool age and sometimes at this age children give correct answers with a negation and correct answers (Vasić, 1988). When formulating opposites of adjectives at the preschool age, correct answers were dominant, whereas correct answers with a negation were less frequent, which is not in accordance with development norms. According to

literature sources, answers formed by negation indicate a certain stage in development and the fact that a child is about to establish meaningful relations between lexemes (Stevanović & Lazarević, 2014). Our results are in accordance with views that children comprehend the concept of opposites very early and they often acquire antonyms in pairs and not as separate units (Jones, 2004). There were an insignificant number of sigmatic and incorrect answers during the process of formulating opposites of the adjectives good, black and free. There was also an insignificant percentage of no answer during the process of formulating opposites of adjectives black and free. The obtained result is in accordance with the research results of other authors and it indicates that if the children are familiar with the meaning of a word, it is easier for them to acquire more complex lexical relations (McGregor, Friedman, Reilly, & Newman, 2002). Namely, according to our research data, there were some answers unexpected at that age and they point to a remarkable semantic level of development of these children.

According to the children's achievement analysis performed by the Test of the Level of Speech Development, the scores in the first and the second parts of the Test are not linearly correlated (r = -.053, p = .677). Preschool children achieved high scores in both parts of the Test focusing on different tasks of assessing/ defining nouns and adjectives. Apart from individual characteristics of the children who participated in our research, the obtained data can also be attributed to the fact that preschool children process nouns and then adjectives most successfully (Nissen & Henriksen, 2006).

Also, we investigated if there was a statistically significant difference between respondents of the Test of the Level of Speech Development by gender (Table 6).

	Definition Test		Opposites of Adjectives (test)		Complete test	
	Boys	Girls	Boys	Girls	Boys	Girls
Ν	35	30	35	30	35	30
М	20.46	21.07	19.14	19.03	39.60	40.10
SD	5.36	4.95	1.26	2.22	5.56	5.17
t	473		.249		373	
df	63			63	6	3

Table 6. Boys' and girls' scores in the Test of the Level of Speech Development

The T-test for independent samples did not establish a gender effect. The Test of the Level of Speech Development did not show any significant gender differences in scores in individual parts of the test (Definition Test and the Test of the Opposites of Adjectives) and in the complete test. Research of adolescents' typical ability to define (from grades 5 to 8) determined that there is a difference in the length of a definition between boys and girls, meaning that girls create longer definitions (Avramović, Vuković, & Vuković, 2012).

CONCLUSION

Monitoring the development of different language skills of children of preschool and early school age can be an important indicator of academic achievement (Zubrick, Taylor, & Christensen, 2015) in future education and of educational achievement as a whole. Namely, teaching is mostly based on verbal explanations and information is acquired mostly by language (oral or written). Listening and reading comprehension is directly and indirectly linked with understanding the meaning of words and the structure of sentences (Kim, 2015).

So, in order to function smoothly and to be equal members of both social and school communities, children need to master the rules, elements, structure, and conventions of the language system on all levels. From the aspect of language development at preschool and early school age, one of the prerequisites for adequate and efficient mastering of numerous language skills is the level of development of metalinguistic awareness, especially of one of its components -awareness of words manifested through several aspects. This paper focuses on the ability to define nouns as a form of metalinguistic awareness and as an indicator of language development on lexical and semantic levels. Noun definition is considered to be a metalinguistic ability which follows a course of development similar to that for the acquisition of word meaning (Wehren, De Lisi, & Arnold, 1981). Some authors also emphasise that metalinguistic dimensions/components (lexical, semantic, phonological, syntactic awareness) have a special influence on the ability to define in childhood (Benelli et al., 2006). From the educational perspective, the process of the development of metalinguistic awareness and the process of learning to read and write represent two important and mutually conditioned processes which allow a language perspective outside the context

of communication and the direction towards its structural characteristics, which are evident in written and oral forms. In fact, a general level of metalinguistic awareness is necessary in order to be able "to learn to read" (Kodžopeljić, 1996: 46) and to master writing skills.

According to the results of the presented research, it can be concluded that preschool children who participated in the conducted research had developed their ability to define concrete nouns (house, sun, mother and man) in a way that surpasses the norms for their age. Namely, if we observe the given nouns, the most frequent types of definitions for the majority of nouns are functional, affective-literary and descriptive definitions which are expected at this age; but there are also a large number of logical definitions, from incomplete categorybased definitions containing a general term, through incomplete category-based definitions containing a specific characteristic, to complete category-based logical definitions, which iscertainly a positive deviation from language development norms. The given result can be correlated with individual language skills and language development of these children. The data also show that concrete nouns are defined more easily than abstract nouns. It was also established that defining nouns depends on experience and knowledge of the meaning of the term that is being defined. Besides, data related to the acquisition of opposites of adjectives indicate that opposites for adjectives big, black and good had been completely acquired, whereas the smallest number of correct answers refer to formulating the opposite of the adjective free. We would also like to point out that obtained results do not confirm differences related to the ability to define in terms of the gender of children of the given age.

Although obtained results cannot be generalised because there are limitations due to the size of the sample and the fact that the research was not conducted on the wider territory of our country, on the whole, this study confirms the role and the importance of different aspects of metalinguistic awareness and lexicalsemantic awareness, not only for adequate language development, but also for children's academic achievement. The importance of this study can be recognised in the fact that the effect of gender was analysed for the first time in the domain of the ability to define. With this study we also tried to highlight a special aspect of language development - metalinguistic awareness. Besides, we would like to point out that it is necessary to conduct research where the children's ability to define could be analysed from the aspect of other parts of speech, starting from preschool and primary school age to secondary school age. One of the future research topics might be analysis of bilingual children's ability to define.

Knowing that one of the most evident educational influences is manifested in language behaviour and its richness, there is no doubt that these obtained results indicate, among other things, that there are certain dynamics in the development of more complex abilities. They also indicate that there is a need to create opportunities which would contribute to a more advanced metalinguistic (especially semantic) development as early as in preschool education, and which would encourage its reinforcement and improvement of a child's language development, his/her language competence as a whole as well as cognitive development, since there is undoubtedly a close link between language and thinking. Moreover, in preschool and early primary school education, special attention should be paid to activities which contribute to the improvement of metalinguistic awareness since its link with children's academic achievement has been, among other things, recognised and confirmed.

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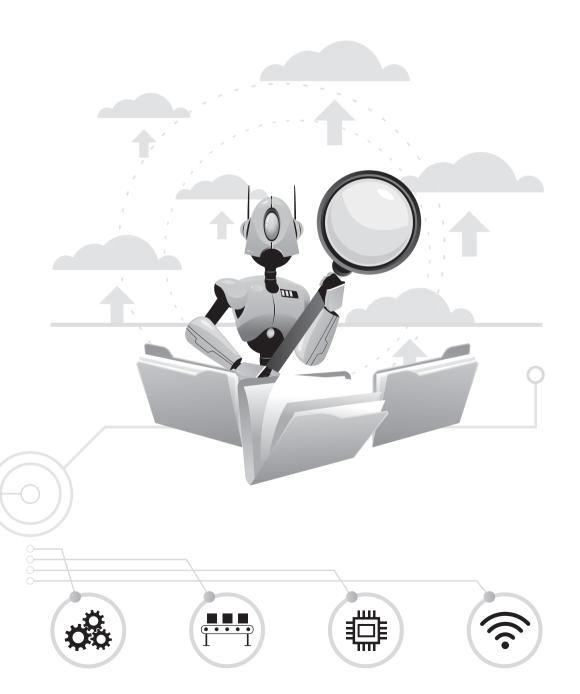
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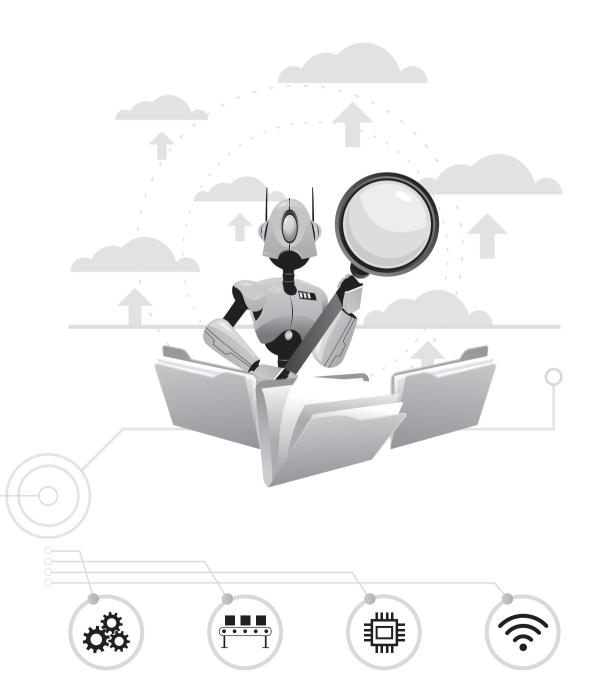
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FROM REVIEWS

Main aim of the monograph titled *Problems and perspectives of contemporary education*, is to thorough explore, critically analyze and elaborate complex, dynamic, multilayers and reciprocal relationship between significant changes in educational social environment and readiness, of educational system to anticipate, recognize, understand and adequately respond to those challenges. All contributing authors enthusiastically embraced the notion that education presents an important and proactive agent of social changes and consequently accepted all challenges as an opportunity for improvement and development of both society and educational system.

Professor Emeritus Djuradj Stakic Pennsylvania State University, USA

The monograph is dedicated to looking into extremely significant and current concerns within educational policy and educational practice. The selected topic is viewed from the perspectives of contemporary theoretical approaches, but it is also empirically researched. A very large and relevant literature was used both for explaining the selected research subject and discussing the obtained results. A diverse, contemporary methodology was applied in researches, and the authors of works, starting from the existing results, analysed issues at a deeper level and illuminated some aspects that had not been studied thus far.

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