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RESULTS OF THE DIAGNOSTICS STATE OF FORMATION OF LEXICAL-SEMANTIC SKILLS IN OLDER PRESCHOOLERS

In the article, the author defined the characteristics of lexical-semantic skills, presented the methodology for its diagnosis in senior preschoolers and analyzed the results of the level of its formation. The experiment covered 130 children aged 5-7 years: 71 preschoolers with general speech underdevelopment of II–III levels and 59 preschoolers with typical development. The diagnostics were carried out according to the cognitive, reproductive and activity component and lexical, semantic, semantic-grammatical and contextual components.

The author analyzed the diagnostic results and found that the majority of preschoolers with general speech underdevelopment (83%) demonstrate a low level of lexical-semantic skills, while children with typical development have a high level (75%). The remaining preschoolers with general speech underdevelopment (17%) and typical development (25%) are at an average level of lexical-semantic skills. The author identified significant difficulties in children with general speech underdevelopment regarding their knowledge, understanding, and correct use of natural and ecological vocabulary, particularly in the following categories: vegetables, fruits and berries, grains and seeds, shrubs and trees, flowers and mushrooms; domestic animals, farm and wild animals (forest animals), African and marine inhabitants, insects, birds, fish, natural phenomena, inanimate nature, natural and artificial materials, as well as natural and artificial objects; space-related vocabulary; and ecological terms related to a child's attitudes and behaviors concerning the economical use of resources (water, electricity), waste management, and treatment of animals. Additionally, challenges were observed in understanding semantic connections, lexicallanguage phenomena (synonymy, antonymy, polysemy, semantic generalizations), and the appropriate and precise word's use in the necessary context.

The author concluded that the data obtained indicate significant gaps in the speech development of children with general speech underdevelopment compared to their peers with typical development. This emphasizes the need to develop a special correctional and developmental methodology to increase the level of lexical and semantic skills.

Keywords: lexical-semantic skills, older preschoolers, diagnostics, general speech underdevelopment.

INTRODUCTION

The problem statement. Lexical-semantic skills refer to a child's ability to accurate select, combine, and integrate lexical units into a semantic-grammatical context [1, p. 86]. These skills imply that older preschool children possess a well-developed vocabulary, including various parts of speech. They also include mastering of synonyms, antonyms, and homonyms; understanding generalized lexical meanings of words and their conceptual correlations; organizing semantic fields (e.g., the ability to classify and group words into categories), applying grammatical structures, and using words with precision and appropriateness. These competencies are characterized by mastery of lexical collocations, an understanding of lexical valency, and the ability to produce coherent speech within a given context.

Analysis of recent studies and publications. Scientific literature has outlined approaches and criteria for assessing the development of preschoolers' vocabulary, considering various methodologies. These include the linguodidactic approach (A. Bohush, N. Havrysh [2]), the psychological approach (L. Kalmykova [3], Ye. Sobotovych [4]), and the neuropsychological approach (V. Tarasun [5]).

The peculiarities of the develoment of the lexical component of speech of children with special educational needs and the methods for its assessment have been the focus of significant attention among researchers. O. Boryak [6] studied vocabulary development of children with intellectual disabilities, L. Vavina [7] explored problems of vocabulary development of children with visual impairments , I. Hlushchenko [8] examined peculiarities of vocabulary learn of children with mental retardation , E. Danilavichute [9] investigated the specifics of vocabulary learn of children with cerebral palsy, and A. Kolupayeva [10] analyzed the state of speech, including lexical development, of children with special educational needs within inclusive environments; Z. Leniv [11] focused on the learn of lexical means by children who stutter, while I. Marchenko [12] studied the dynamics of vocabulary development of children with speech disorders,

V. Zhuk and T. Sushko [13] studied problems of lexical development of children with hearing impairments. Researchers have theoretically substantiated the difficulties in acquiring knowledge, skills, and concepts in preschoolers with speech development disorders and identified criteria for lexical development in these children [14].

Based on the results of a theoretical analysis of specialized literature on the diagnosis of lexical development in preschool children with general speech underdevelopment (I. Baranets [15], I. Brushnevska [16], O. Milevska [17], Yu. Ribtsun [18], H. Sokolova [19], O. Tkach [20], L. Trofymenko [21], and others), we did not identify any systematic studies on the lexical-semantic skills of these children.

In this regard, we set the task of examining the state of formation of lexical-semantic skills in older preschool children with general speech underdevelopment (GSU), as a necessary developmental milestone in speech proficiency during the preschool years.

The research goal. To identify and analyze the level of development of lexical-semantic skills in older preschoolers.

RESULTS

For the diagnostic study of the state of lexical-semantic skill formation in older preschool children, the author employed three groups of tasks corresponding to the cognitive, reproductive, and activity components, along with their defined elements: lexical and semantic components for the first two aspects, and lexical, semantic-grammatical, and contextual components for the third aspect [22, p. 142].

The study involved 130 children aged 5–7 years: 71 children with general speech underdevelopment (GSU) Levels II–III (including 20 girls) and 59 children with typical development (including 33 girls). Preschoolers with GSU formed the experimental group (EG), while preschoolers with typical development formed the control group (CG). The experiment was conducted in educational institutions and development centres in Lviv, Ivano-Frankivsk, and Zhytomyr regions.

To evaluate the lexical component of the cognitive aspect, the formation of an active dictionary of natural and ecological vocabulary was determined. The analysis of the results revealed that the lexical component in 70% of preschoolers with GSU was at a medium level, while the remaining children demonstrated a low level. At the same time, the lexical component of the cognitive aspect in the majority of preschoolers with typical development (64%) was formed at a high level, with the remainder at

a medium level (Fig. 1).

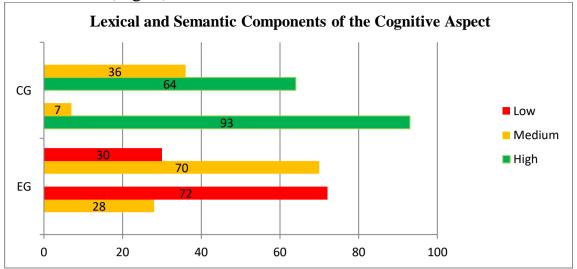


Fig. 1 Distribution of values for the lexical and semantic components of the cognitive aspect, %

Most preschoolers with GSU required assistance in the form of attention stimulation and clarifying questions. The majority of children with GSU were unfamiliar with the names of grains and seeds (65%), mushrooms (56%), fish (73%), and natural and artificial materials (54%).

The most common semantic errors among children with GSU, which reflected incorrect understanding of word meanings, included: confusing the names of fruit; mixing up the names of vegetables; not knowing the names of certain berries; using russian loanwords being unfamiliar with the names of seeds and grains; referring to trees of different species with a single name or the general term "tree" (e.g., "tree" used for all).

These children also demonstrated characteristic phonological errors, such as sound rearrangements, substitutions, additions, or omissions. Children with typical development faced fewer difficulties. However, most of them required clarifying questions regarding the names of berries (80% of children), mushrooms (56%), marine animals (80%), fish (83%), birds (90%), and objects in space (69%).

The evaluation of the semantic component under the cognitive criterion for the formation of lexical-semantic skills in older preschoolers was conducted using tasks to determine: the level of elementary generalizations; the level of passive vocabulary formation, with a focus on natural and ecological terms; understanding of lexical-semantic connections within a logical-grammatical context constructed using the phrase "follows after"; mastery of ecological and natural knowledge (based on S. Muraoka [23]); understanding the importance of careful use of natural resources and the

environment.

The analysis of the results showed that the cognitive aspect of the semantic component in preschoolers with GSU was predominantly formed at a low level (72% of children). Only 28% of children with GSU achieved a medium level. In contrast, the situation was significantly better among preschoolers with typical development: 93% demonstrated a high level of the cognitive aspect of the semantic component, while only 7% had a medium level (see Fig. 1).

Overall, the cognitive aspect of lexical-semantic skills in children with GSU was mainly formed at a medium level (66% of children). Boys showed slightly higher levels (67%) than girls (65%). However, 34% of children with GSU exhibited a low level of cognitive development. In the control group (children with typical development), the majority (92%) had a high level of cognitive development, while the remaining 8% demonstrated a medium level (Fig. 2).

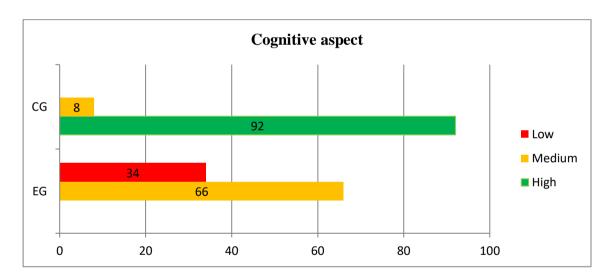


Fig. 2 Distribution of values for the cognitive aspect of lexical-semantic skills, %.

In order to evaluate the reproductive aspect of the lexical component, the state of formation of the predicative and attributive dictionary of natural and ecological vocabulary describing the objects and phenomena of nature is determined.

The lexical component of the reproductive aspect in children with GSU was formed at a medium level in most cases (66% of children). The remaining 34% of children exhibited a low level of this component.

In contrast, among children with typical development, a high level prevailed (76% of children), while the other 24% demonstrated a medium level (Fig. 3).

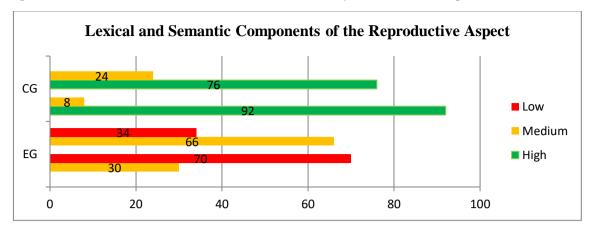


Fig. 3 Distribution of values for the lexical and semantic components of the reproductive aspect, %.

The research of the semantic component of lexical-semantic skills according to the reproductive criterion in older preschoolers with GSU involved assessing the level of formation of: lexical generalizations (categorical and specific-general concepts); semantic connections that form the basis of the conceptual correlation of a word; and lexical-semantic language phenomena.

The GSU children's semantic component of the reproductive aspect was predominantly formed at a medium level (82% of children), while a low level was observed in 18% of children. Among children with typical development, a high level prevailed (92% of children), with only 8% demonstrating a medium level (see Fig. 3).

The GSU children's reproductive aspect of lexical-semantic skills was mostly formed at a medium level (75% of children), while 25% exhibited a low level. In the control group, more than half (53%) of children demonstrated a high level of reproductive aspect formation, with the remaining 47% at a medium level (Fig. 4).

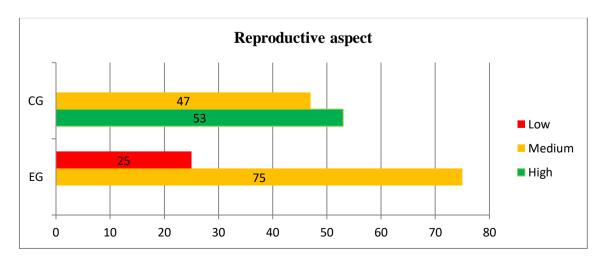


Fig. 4 Distribution of values for the reproductive aspect of lexicalsemantic skills, %

The lexical component of the activity aspect of lexical-semantic skills was assessed by evaluating the formation of the prepositional vocabulary. Among children with GSU, this component was predominantly (99%) formed at a low level. Only 1% of boys achieved a medium level. In contrast, most children with typical development (53%) demonstrated a high level, and the remaining 47% showed a medium level of formation (Fig. 5).

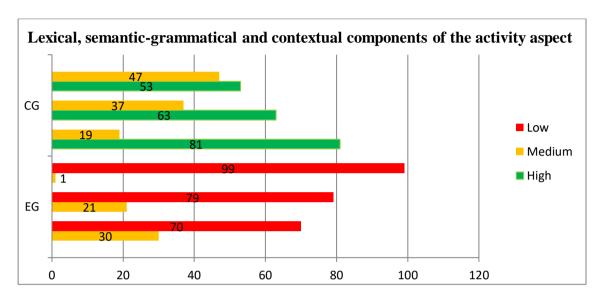


Fig. 5 Distribution of values for the lexical, semantic-grammatical, and contextual components of the activity aspect, %

To assess the semantic-grammatical component using the activity criterion, tasks were assigned to evaluate the following: word formation based on nouns (e.g., diminutives, exaggerated names, names of animal offspring, and names of containers for storing items); formation of deverbal word forms (e.g., professions derived from actions, processes from actions); formation of adjectival word forms (e.g., whose house, which material the object is made of, external and internal qualities, evaluative meaning such as color and size); formation of compound adjectives; formation of related words based on patterns.

The semantic-grammatical component of the activity aspect for children with GSU was primarily (79%) formed at a low level. Only 21% demonstrated a medium level of formation. Among children with typical development, the majority (63%) showed a high level of this component, while 37% exhibited a medium level (see Fig. 5).

To evaluate the contextual component of the activity aspect, the author identified the following tasks: examining children's understanding of contextually driven lexical generalizations (the "Find and Show" method by Yu. Ribtsun [18]); evaluating the state of lexical combinability in children (the "Best Word" method); assessing the ability to complete sentences (the

"Complete the Sentence" method); studying children's ability to differentiate root-related words (the "Identify the Word" method); examining the peculiarities of vocabulary use (the "Most Accurate Word" method for nouns; the "Precise Words" method for adjectives); assessing the state of lexical-semantic language phenomena (the "Polysemantic Words" method by I. Brushnevska [16, pp. 226–227]); studying the understanding of semantic word perception (by O. Milevska [24, p. 151]); and evaluating the development of lexical systematicity and the ability to produce contextual expressions and creative speech through the "Create a Fairy Tale" method (by I. Baranets [15, p. 104]).

The GSU children's contextual component of the activity aspect was mostly (70%) formed at a low level, while 30% of children demonstrated a medium level. In the control group, the majority (81%) showed a high level of the contextual component, 19% of children have an average level (see Fig. 5).

The GSU children's activity aspect of lexical-semantic skills was formed at a low level - 87% of cases (Fig. 6). Only 13% of children achieved a medium level. Among children with typical development, the activity aspect was predominantly (83%) formed at a high level, with 17% demonstrating a medium level.

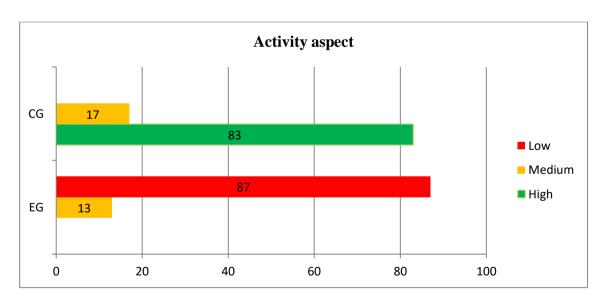


Fig. 6 Distribution of values for the activity aspect, %

The GSU children's level of lexical-semantic skills was predominantly (83%) formed at a low level (Fig. 7). Only 17% of children with GSU achieved a medium level. Among children with typical development, the situation was significantly better: most children (75%) demonstrated a high level, while the remaining 25% showed a medium level of development.

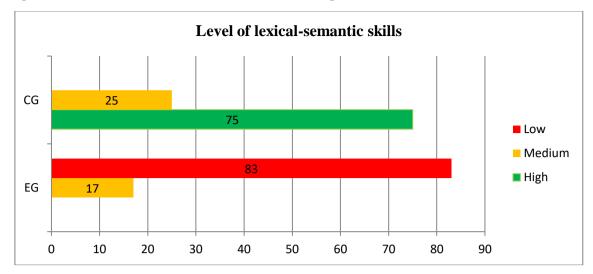


Fig. 7 Distribution of lexical-semantic skills values, %

These findings highlight the need for the development of a specialized corrective-developmental methodology to enhance lexical-semantic skills. This would contribute to the successful preparation of children with GSU for school education and their social adaptation.

CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

Based on the conducted study, the following conclusions were formulated:

1.Lexical-semantic skills serve as a tool for producing coherent speech. Mastery of these skills is an indicator of speech development for older preschool children. The children with GSU have the disruptive process of mastering lexical – semantical skills. The issue of diagnosing these skills in preschoolers with speech underdevelopment is insufficiently represented in scientific literature.

- 2. To assess lexical-semantic skills of older preschoolers with GSU, cognitive, reproductive, and activity criteria were used. The lexical, semantic, semantic-grammatical, and contextual components of the diagnosed skills were analyzed according to these criteria.
- 3. The diagnostic study of lexical-semantic skills revealed the following:

-older preschoolers with GSU did not demonstrate a high level of lexical-semantic skills according to any of the evaluation criteria. In contrast, preschoolers with typical development displayed high levels of lexical-semantic skills: 92% of children for the cognitive aspect, 53% for the reproductive aspect, and 83% for the activity aspect.

-medium levels of cognitive aspect formation were found in 66% of

preschoolers with GSU and 8% of children with typical development; reproductive aspect formation - 75% of children with GSU and 47% of children with typical development; activity aspect formation - 13% of children with GSU and 17% of preschoolers with typical development.

-low levels of cognitive aspect formation were observed in 34% of preschoolers with GSU; reproductive aspect - 25% of children with GSU; activity aspect - 87% of children with GSU.

The prospects of the research are the substantiation of methodical support for the formation of lexical-semantic skills in older preschoolers with general underdevelopment of speech, taking into account the cognitive, reproductive and activity aspects of these skills.

REFERENCES (TRANSLATED AND TRANSLITERATED)

- [1] O. P. Milevska, "The lexical-semantic skills study of senior preschool children with general speech underdevelopment", Zbìrnik naukovih prac′. Pedagogìčnì nauki, Kherson State Univ., t. 2, № LXXVIII, 86–91, 2017. (in Ukrainian)
- [2] A. M. Bohush and N. V. Havrysh, *Preschool Linguodidactics: Theory and Methods of Teaching Children Their Native Language in Preschool Educational Institutions: Textbook*, 2nd ed. Kyiv: Slovo, 2015, Accessed: December 27, 2024. https://library.megu.edu.ua:9443/jspui/bitstream/123456789/1679/1/bogush_a_m_doshkil_na_lingvo_didaktika_teoriya_i_metodika_nav.pdf. (in Ukrainian)
- [3] L. O. Kalmykova, "Psychology of the development of speech activity of the children of pre-school age", Thesis for the degree of Doctor of Science (DSc), G.S. *Kostyuk Institute* of *Psychology* of the NAPS of *Ukraine*, Kyiv, 2011. Accessed: December 27, 2024. https://uacademic.info/ua/document/0511U000717. (in Ukrainian)
- [4] Ye. F. Sobotovych, "Psycholinguistic periodization of speech development in preschool children," *Theory and Practice of Modern Speech Therapy: Collection of Scientific Papers*, no. 1, pp. 7–35, 2004. (in Ukrainian)
- [5] V. V. Tarasun, *Morphofunctional readiness for children with peculiarities of development (neuropsychological approach)* Project Report. Kyiv: Natl. Ped. Drahomanov Univ. Publishing, 2008. Accessed: December 27, 2024. https://lib.iitta.gov.ua/id/eprint/715186 (in Ukrainian).
- [6] O. V. Boryak, "Theory and practice of forming speech activity of mentally retarded children of junior school age", Thesis for the degree of Doctor of Science (DSc), Natl. Ped.

- Drahomanov Univ., Kyiv, 2019. Accessed: December 27, 2024. https://enpuir.npu.edu.ua/bitstream/handle/123456789/39887/Boriak_dis.pdf?sequence=1&isAllowed=y. (in Ukrainian)
- [7] L. S. Vavina, "The main factors of enhancing speech development of preschool children with visual impairments", *Osvìta osìb z osoblivimi potrebami: šlâhi rozbudovi*, no. 5, pp. 18–25, 2014. Accessed: December 27, 2024. https://lib.iitta.gov.ua/id/eprint/716681. (in Ukrainian)
- [8] I. I. Hlushchenko, "The overcoming of children's with learning disability lexical side of speech disturbances at speech and language pathologist's lessons", Thesis for the degree of Candidate of Sciences (CSc), Kherson State Univ., Kyiv, 2010. Accessed: December 27, 2024. https://uacademic.info/ua/document/0411U001265. (in Ukrainian)
- [9] E. A. Danilavichiutie, "Diagnosis of the level of development of components of speech activity that contribute to the acquisition of reading skills". *Teoriia i praktyka suchasnoi lohopedii: Zbirnyk naukovykh prats.* no. 3. Kyiv, Aktualna osvita. P.119 –135. 2006 (in Ukrainian).
- [10] A. A. Kolupayeva, Ed., Basics of Inclusive Education: Educational-Methodical Manual. Kyiv: A.S.K., 2012. (in Ukrainian)
- [11] З. П. Ленів, "Correction of oral speech impairments in the senior preschool children by means of art therapy", Thesis for the degree of Candidate of Sciences (CSc), Natl. Ped. Drahomanov Univ., Kyiv, 2010. Accessed: December 27, 2024. https://uacademic.info/ua/document/0410U006604. (in Ukrainian)
- [12] I. S. Marchenko, Special Methods of Initial Teaching of Ukrainian Language (Speech Therapy Work on Correcting Speech Disorders in Preschoolers). Kyiv: Slovo, 2010. Accessed: December 27, 2024. https://pidru4niki.com/86430/pedagogika/spetsialna_metodika_rozvitku_movlennya_logopedichna_robota_z_korektsiyi_porushen_movlennya_u_doshkilnikiv (in Ukrainian).
- [13] V. V. Zhuk and T. I. Sushko, Speech Development: Textbook for Preparatory Classes of Special General Educational Institutions for Children with Hearing Impairments. Kyiv: Nash Chas, 2013. (in Ukrainian)
- [14] V. V. Tarasun, Fundamentals of Logodidactics Theory and Practice: Textbook for Higher Education Institutions. Kyiv: Karavella, 2017. Accessed: December 27, 2024. https://lib.iitta.gov.ua/id/eprint/714740/1/ЛОГОДИДАКТИКА.%202017.pdf
- [15] I. V. Baranets, "Formation of communicative competence in older preschool children with motor alleles", Thesis for the degree of Doctor of Philosophy (PhD), Mykola Yarmachenko Institute of Special Education and Psychology of the NAPS of Ukraine, Kyiv, 2022. Accessed: December 27, 2024. https://ispukr.org.ua/articles/21/Дис_Баранець_I_B_.pdf
 - [16] I. M. Brushnevska, "The formation of the communicative

- component of speech activity of children at the age of five with general underdevelopment of speech", Thesis for the degree of Candidate of Sciences (CSc), Mykola Yarmachenko Institute of Special Education and Psychology of NAPS of Ukraine, Kyiv, 2018. Accessed: December 27, 2024. https://ispukr.org.ua/articles/18/04/Brushnevska_d.pdf
- [17] O. P. Milevska, "The specifics of acquisition of verb semantics by children with general speech underdevelopment", y *Materials of the XXVII the Intern. Science Conf. «Multidisciplinary academic research and innovation»*, Netherlands. 2021, p. 459–464.
- [18] Yu. V. Ribtsun, "Assessment of the lexical aspect of receptive speech in junior preschoolers with GSU," *Teoriia i praktyka suchasnoi lohopedii: zbirnyk naukovykh prats*, no. 4, pp. 95–103, 2007. Accessed: December 27, 2024. https://logoped.in.ua/wp-content/uploads/2013/02/36iphuk_4.doc
- [19] H. B. Sokolova, "Development of leksical-cemantikal side of broadcasting for the children of senior preschool age time-lagged psychical development", Thesis for the degree of Candidate of Sciences (CSc), Odesa I. Mechnykov National University., Odesa, 2011. Accessed: December 27, 2024. https://uacademic.info/ua/document/0411U000309
- [20] O. M. Tkach, Speech Therapy: Formation of Semantic Fields of Words in Children with Systemic Speech Disorders. Kamianets-Podilskyi: Aksioma, 2019. Accessed: December 27, 2024. <a href="http://elar.kpnu.edu.ua/xmlui/bitstream/handle/123456789/6635/Tkach-O.M.-Lohopediia-formuvannia-semantychnykh-poliv-sliv-u-ditei-z-systemnymy-porushenniamy-movlennia.pdf?sequence=1&isAllowed=y
- [21] L. I. Trofymenko, *Diagnosis and Correction of General Speech Underdevelopment in Preschool Children*. Kyiv, 2014. Accessed: December 27, 2024. https://lib.iitta.gov.ua/id/eprint/8723/1/Посібник-ост.%20Трофименко%202014.pdf
- [22] H. O. Lukachovych, "Methodological aspects of assessing the state of lexical-semantic skills in senior preschoolers with general speech underdevelopment," *Teoriia i praktyka suchasnoi lohopedii: zbirnyk naukovykh prats*, O. V. Havrylov, Ed. *Kamianets*-Podilskyi, Apr. 18–19, 2024. *Kamianets*-Podilskyi: Kovalchuk O. V., 2024, pp. 141–144. (in Ukrainian)
- [23] S. Muraoka, "An experimental examination of the effectiveness of environmental education with preschool children", Masters Thesis, California State Polytech. Univ., Humboldt, 2013.83. (in English)
- [24] O. P. Milevska, "The semantic dominant features of word perception in children with general speech underdevelopment", Actual problems of the correctional education no. 15, pp. 145–154, 2020. Accessed: December 27, 2024. https://aqce.com.ua/download/publications/575/534.pdf. (in Ukrainian)

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РЕЗУЛЬТАТИ ДІАГНОСТИКИ СТАНУ СФОРМОВАНОСТІ ЛЕКСИКО-СЕМАНТИЧНИХ УМІНЬ У СТАРШИХ ДОШКІЛЬНИКІВ

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У статті визначена характеристика лексико-семантичних умінь, представлена методика її діагностики у старших дошкільників та проаналізовані результати рівня її сформованості. Експериментом було охоплено 130 дітей віком 5-7 років: 71 дошкільник із загальним недорозвиненням мовлення ІІ—ІІІ рівня та 59— з типовим розвитком. Діагностика проводилася за когнітивною, репродуктивною та діяльнісною складовою і лексичним, семантичним, семантикограматичним та контекстуальним компонентами.

Аналіз результатів показав, що більшість дошкільників з загальним недорозвиненням мовлення (83%) демонструють низький рівень сформованості лексико-семантичних умінь, тоді як у дітей з типовим розвитком переважає високий рівень (75%). Решту дошкільників з загальним недорозвиненням мовлення (17%) і типовим розвитком (25%) - на середньому рівні сформованості лексико-семантичних умінь. Виявлено значні труднощі у дітей з загальним недорозвиненням мовлення щодо знання, розуміння та вірного використання природничоекологічної лексики, зокрема таких категорій, як: овочі, фрукти та ягоди, злаки і насіння, кущі та дерева, квіти та гриби; домашні тварини, свійські та дикі тварини (лісові звірі), африканські та морські жителі, комахи, птахи, риби, явища природи, нежива природа, природні і штучні матеріали, а також природні і штучні об'єкти; Космос; екологічна лексика, що стосується ставлення та поведінки дитини щодо економного використання ресурсів (води, електроенергії), поводження з сміттям, відношення до тварин), семантичних зв'язків, лексико-семантичних мовних явищ (синонімії, антонімії, багатозначності, узагальнення) та доцільного і точного застосування слів у необхідному контексті.

Отримані дані свідчать про значні прогалини у мовленнєвому розвитку дітей з загальним недорозвиненням мовлення порівняно з їх однолітками з типовим розвитком. Це підкреслює необхідність розробки спеціальної корекційно-розвивальної методики для підвищення рівня лексико-семантичних умінь.

Ключові слова: лексико-семантичні уміння, старші дошкільники, діагностика, загальне недорозвинення мовлення.