

**Оксана Кіліченко,**

кандидат педагогічних наук, доцент, доцент кафедри педагогіки початкової освіти,
Прикарпатський національний університет імені Василя Стефаника (м. Івано-Франківськ, Україна)

Oksana Kilichenko,

Candidate of Pedagogical Sciences, Associate Professor, Associate Professor
of Pedagogy of Primary Education,
Vasyl Stefanyk Precarpathian National University (Ivano-Frankivsk, Ukraine)
oksana.kilichenko@pnu.edu.ua
ORCID ID 0000-0001-5641-5481

Ольга Комар,

доктор педагогічних наук, професор,
завідувач кафедри фахових методик та інноваційних технологій у початковій школі,
Уманський державний педагогічний університет імені Павла Тичини (м. Умань, Україна)

Olha Komar,

Doctor of Pedagogical Sciences, Professor,
Professional Methodologies and Innovative Technologies in Primary School Department,
Pavlo Tychyna Uman State Pedagogical University (Uman, Ukraine)
komar_olga@ukr.net
ORCID ID 0000-0003-0289-2359

УДК 37.018.2.

ПЕДАГОГІЧНІ УМОВИ РОЗВИТКУ ПІЗНАВАЛЬНИХ ІНТЕРЕСІВ В УЧНІВ ПОЧАТКОВОЇ ШКОЛИ

Анотація. У статті розглянуто педагогічні умови розвитку пізнавальних інтересів у дітей молодшого шкільного віку. Зазначено, що сучасна школа, діяльність якої відбувається в складних умовах: війна з росією, пандемія Covid, орієнтована не тільки на передачу знань, а на формування компетентностей. Результативна освітня діяльність неможлива без розвитку в учнів стійких пізнавальних інтересів. Конкретизовано поняття «інтерес» і розглянуто поняття «пізнавальний інтерес», визначено педагогічні умови його розвитку в учнів молодшого шкільного віку. З-поміж основних умов виокремлюємо такі: розуміння та усвідомлення учнем змісту і значення вивчаюваного матеріалу, а не тільки сприйнята навчальна інформація, розвиток критичного мислення, використання нового у змісті вивчаюваного, дотримання принципу випереджувального навчання, який сприяє не лише поступовому засвоєнню всіма учнями навчального матеріалу, але й розвиває допитливість, заглибленість у знаннях, формування пізнавальних інтересів учнів початкової школи залежить від емоційної привабливості навчання і тісно пов'язане з розвитком емоційного інтелекту як здатності особистості розпізнавати емоції свої та інших людей, бажання навчатися, ставлення до навчання тощо. Окрім традиційних способів організації освітнього процесу в початковій школі, на формування пізнавальних інтересів впливає використання проблемного, інтерактивного, інтегрованого навчання. Важливою умовою формування пізнавального інтересу здобувачів початкової освіти в процесі навчання є використання ігрових технологій. За сучасних умов особливого значення набуває впровадження інформаційно-комунікаційних технологій на уроках у початковій школі. Використання в навчальному процесі оптимальної системи тренувальних творчих вправ і пізнавальних завдань, відповідно до змісту навчального матеріалу, особливостей і можливостей учнів, відіграє особливе значення в процесі розвитку пізнавальних інтересів молодших школярів.

Ключові слова: учень початкової школи, навчальний процес, учіння, пізнавальний інтерес.

PEDAGOGICAL CONDITIONS FOR THE DEVELOPMENT OF COGNITIVE INTERESTS IN PRIMARY SCHOOL STUDENTS

Abstract. The article examines pedagogical conditions for the development of cognitive interests in children of primary school age. It is noted that a modern school, which activities take place in difficult conditions: the war with Russia, the Covid pandemic, is focused not only on the transfer of knowledge, but on the formation of competencies. Effective educational activity is impossible without the development of stable cognitive interests in students. The concept of "interest" is concretized, the concept of "cognitive interest" is considered, and the pedagogical conditions for its development in elementary school students are determined. Among the main conditions we highlight the following: the student's understanding and awareness



of the content and meaning of the studied material, and not only the perceived educational information, the development of critical thinking. Use of the new in the content of the subject. Adhere to the principle of anticipatory learning, which contributes not only to the gradual assimilation of educational material by all students, but also develops inquisitiveness, immersion in knowledge. The formation of cognitive interests of primary school students depends on the emotional appeal of learning and is closely related to the development of emotional intelligence, as the ability of an individual to recognize his own and other people's emotions, desires, attitude to learning, intentions and manage them. In addition to traditional methods of organizing the educational process in primary school, the formation of cognitive interests is influenced by the use of problem-based, interactive, integrated learning. An important condition for the formation of the cognitive interest of primary school students in the learning process is the use of game technologies. In modern conditions the implementation of information and communication technologies in primary school lessons is of particular importance. The use of an optimal system of creative training exercises and cognitive tasks in the educational process in accordance with the content of the educational material, features and capabilities of students plays a special role in the process of developing cognitive interests in primary school students.

Keywords: primary school student, educational process, learning, cognitive interest.

INTRODUCTION

The problem formulation. There have been many changes in the education system and, in particular, in the primary school education system. First of all, the learning goals have changed. A modern school focuses not only on the transfer of knowledge, but on the formation of competencies. As stated in the Concept of the New Ukrainian School (2016) and the State Standard of Primary Education (2018), the main goal of modern education is the development of a comprehensively developed personality who strives to learn throughout life, is capable of self-improvement and self-development, is ready for conscious choice and self-realization, labor activity and civic activity. Successful educational activity is impossible without the development of stable cognitive interests in students.

Therefore, we believe that the search for ways to develop and activate the cognitive interests of elementary school students is an urgent problem.

V.O. Sukhomlynsky repeatedly noted that it depends on the teacher whether the child will feel the romance and beauty of knowledge (Sikorskyi P., 2018, p.8).

Analysis of recent research and publications. The problem of the development of cognitive interests was studied by A. Aleksyuk, N. Bibik, A. Bodnar, S. Burchak, K. Delikatny, O. Kyrychuk, V. Kobal, N. Kravchuk, O. Mytnyk, V. Onyshchuk, O. Savchenko, O. Sinytsia, V. Sukhomlynskyi, S. Rusova, O. Flyachynska, K. Ushynskyi, V. Shmorgun, and others.

Outstanding Czech teacher Ya.A. Komensky noted that thanks to the student's interest "he will burn with the desire to learn, not afraid of any difficulties, in order to master science... not only will he not avoid work, he will even seek it and will not be afraid of tension and effort" (Comenius J. A., 1940, p. 134).

The dependence of the formation of interest on taking into account the age and individual characteristics of children was pointed out by K. D. Ushynskyi, who wrote: "The teacher should not forget that teaching devoid of any interest and taken only by force of coercion kills in the student the hunt for learning, without which he is far from will not go" (Fitsula M., 2002, p. 14).

V.O. Sukhomlynsky repeatedly pointed out the need to develop interest in learning. He noted at school, "A student repeats other people's thoughts from day to day, from year to year, but does not reveal his own. A single task is set before him: to remember, to keep in memory, to reproduce" (Sukhomlynskyi V., 1977, p. 340). At school, it is necessary to organize the educational process in such a way that "the child is passionately interested in learning", and for this "she needs a rich, diverse, attractive intellectual life" (Sukhomlynskyi V., 1977, p. 427).

The new Ukrainian school points to the need to form students' cognitive interest as the leading motive of educational activity. According to N. Bibik, it should be maintained in a mode of dominance over secondary motives (duty, prestige, achievement), because it has a number of advantages over them (Bibyk N., 1998).

A. Bondar notes that cognitive interest is a quality that is constantly developing and that has a searching nature and increases the possibilities of mental development of schoolchildren (V. Palamarchuk), promotes self-awareness (O. Savchenko), is a condition for the development of a creative personality (M. Alekseeva) and promotes the emergence of productive work (V. Lozova) (Bodnar A., 2014, p. 33).

The purpose of the article: to determine the pedagogical conditions for the formation of cognitive interest in primary school students in the educational process.

RESEARCH METHODS

To achieve the defined goal the methods of analysis and synthesis, abstraction, generalization, and survey were used, which made it possible to analyze the pedagogical conditions of using the development of cognitive interests of elementary school students.

RESULTS OF THE RESEARCH

To define the concept of "cognitive interest", it is necessary to clarify the concept of "interest".

Most scientists note that the interest of primary school students is determined by the role that is currently important to them and associated with a certain need. At the initial stage, it is superficial and appears in the form of a connection between an object, an activity, later - a need. The interest of elementary school students is not deep. However, it is worth noting that the more fully and deeply the educational subject or activity satisfies the growing needs of the child, the richer and deeper the interest becomes.

Thus, the child's interest is a selective emotional and cognitive attitude of the individual to objects, phenomena, events of the surrounding reality and to certain types of human activity.



N. Vozniuk defines the following characteristic features of interest in elementary school students: heritability (in case of its accidental occurrence); ephemerality, impermanence, unexplained change of interests; superficiality (children are only interested in external facts that are bright, unusual, it is unattractive for them to delve into the essence); proximity to children's own life experience; scattered (interest in completely different fields of knowledge; children ask questions that often go beyond the educational material); focus on immediate results (Did he solve the task or not? How many mistakes did he make? What grade did he get?) (Vozniuk N., 2019, p. 5).

According to A. Danchenko, interest is a prerequisite for learning and its result. That is, on the one hand, the teacher in the learning process relies on the interests of schoolchildren, and on the other hand, promotes their development.

That is, the researcher clarifies, cognitive interest, in the process of developing cognitive activity, is the goal of didactic work and a means of learning. According to A. Danchenko such ambiguity of expression of interest as a goal, means and result of education and upbringing is the main feature of the pedagogical aspect of the development of cognitive interests of younger schoolchildren (Danchenko A., 2020, p. 12]. Analyzing the term cognitive interest, we note that it is a complex integrated property of the personality, which includes intellectual, emotional and volitional components. An important condition for its functioning is the connection with the intellectual and material needs, intellectual and emotional feelings of the individual and his moral guidelines.

A. Karnaukhova, I. Samchenko indicate a number of important points for learning and development that are manifested in cognitive interest:

First, it is a combination of objective and subjective aspects of cognitive activity.

Secondly, checking the expediency of using teaching aids.

Thirdly, an organic combination of intellectual, emotional, volitional processes.

Fourth, activation of cognitive activity and mental processes (perception, attention, memory, imagination). (Karnaukhova A., Samchenko I., 2018, p. 35).

According to V. Lozova (1990) and O. Savchenko (2020), cognitive interests are the basis of activity and independence of primary school students in the learning process. If the children have an interest in the educational material, the researchers note, then the knowledge is learned firmly and deeply, in the absence of it - formally.

The following criteria should be followed for the classification of cognitive interest in primary school students: stability, orientation, level of effectiveness, scope.

According to stability, the following are distinguished: situational, stable, interest-attitude.

Situational interest is temporary and arises as a result of an episodic experience as a reaction to something new, unusual.

Sustained interest arises due to the child's desire to learn something new not only in the process of studying at school, but also in extracurricular time. It is based on the transformation of an episodic experience into an emotional and cognitive attitude of students to a subject or activity.

The interest-attitude is quite deep and is fixed in cognitive activity in the learning process and in extracurricular time. It smoothly changes the meaning of an individual's life.

According to the orientation of cognitive interest, the following types are distinguished: direct and mediated. In elementary school, cognitive interest is most often direct and manifests itself either in the process of learning or in the content of educational material.

Indirect interest is most often manifested when determining the need for certain activity results.

Most often, active and passive interests are distinguished by the level of effectiveness.

Active interest contributes to the formation of a child's character and willpower, the development of his abilities, as it encourages him to master a certain object of interest.

Passive interest arises when the student perceives something interesting and has a contemplative nature.

By volume, cognitive interests are divided into broad and narrow. Broad interests arise in the case of the student's interest in the learning process. Narrow - interest in one subject, topic.

It should be noted that the formation and development of cognitive interests in elementary school students goes through the following stages: interest, curiosity, immersion, orientation. These stages are interrelated.

In order to form and develop the cognitive interests of primary school students in the educational process of primary school, a number of pedagogical conditions should be followed.

As you know, pedagogical conditions reflect a purposefully created educational environment that reflects a complex of pedagogical and psychological factors that effectively influence the interaction and cooperation of teachers and students in order to implement the optimal educational process.

We believe that the main pedagogical conditions that contribute to the formation and development of cognitive interest are:

1. The student's understanding and awareness of the content and meaning of the studied material, not just perceived educational information, development of critical thinking. It is in primary school that the foundations of critical thinking are laid, the essence of which is the use of various methods of mental activity (analysis, synthesis, comparison, abstraction) in order to formulate well-founded conclusions and assessments and make carefully thought-out and independent decisions.

For this purpose, it is worth using the following training methods: "Brain attack", "Associative bush", "We know - we want to know - we learned" (Bibik N., 2017, p.77-85).

2. Using something new in the subject matter. For this, teachers need to expand the educational horizons of younger schoolchildren, teach children to find new, previously unknown, but essential for a deeper understanding of content in well-known material. That is, it is worth not repeating known truths at the same cognitive level.



3. To adhere to the principle of anticipatory learning, which contributes not only to the gradual assimilation of the educational material by all students, but also develops curiosity, immersion in knowledge. The essence of this principle is that brief basics of the topic are provided by the teacher before starting to study the relevant material. It is used both when studying a topic that is difficult to understand, and when studying a topic that is closely related to other disciplines that were previously studied.

4. The formation of cognitive interests of primary school students depends on the emotional appeal of learning and is closely related to the development of emotional intelligence, as an individual's ability to recognize his own and other people's emotions, desires, attitudes to learning, intentions and manage them. The information received by the students should evoke an emotional response, activate their moral, intellectual and aesthetic feelings, become beliefs and move into the category of learned, not jagged, knowledge.

To implement this condition, the teacher needs to develop personal and professional skills and abilities. The main ones include: learn to put yourself in the child's place; develop the ability to correctly recognize the emotions of children, their parents, other teachers and their own; to expand one's horizons as much as possible in order to learn to better understand and realize the difference between students, to be able to fix their peculiarities; to learn in the educational process to "think two steps ahead", to plan and implement time management.

In the lessons, be able to create pedagogical situations in which, with the help of problem tasks, exercises and games, the emotional appeal of the educational material and the learning process was recorded.

In order to stimulate the formation of cognitive interests of elementary school students in the process of developing emotional intelligence in the educational process, it is worth using theatrical activities (elements of staging, dramatization, various types of theater: shadow theater, finger theater, marionette theater, puppet theater, cartoon theater).

5. In addition to traditional methods of organizing the educational process in primary school, it is worth using problem-based, interactive, integrated learning.

Problem-based learning involves a system of consistent and purposeful cognitive tasks that students solve under the teacher's guidance in the process of actively learning new knowledge. Tasks are problematic and contribute to the development of cognitive interest if they require students to think about the problem, based on previous experience and knowledge based on the principle of apperception, that is, careful, meaningful, conscious, thoughtful perception.

Problem-based learning affects not only the formation of cognitive interests, but also the development of independence of elementary school students.

In the process of organizing the educational process using problem-based learning for the purpose of developing cognitive interests in children of primary school age, both basic and auxiliary problems are used. The teacher formulates the main problems at the beginning of the lesson in order to activate the cognitive activity related to the material of the whole lesson. Auxiliary problems should be used at certain stages of the lesson.

We note that the main forms of problem solving are frontal, group, and individual.

When implementing problem-based learning with primary school students, it is worth using learning methods that are organized using traditional and innovative techniques.

Methods of problem-based learning used in primary school include:

1) Problem presentation of the educational material, when the teacher poses rhetorical questions to the children during the teaching process, on which he ponders, summarizes, and draws conclusions.

2) Heuristic method (partial search or joint learning method). In the process of its implementation, the teacher formulates a problem or creates a problematic situation and solves it together with the students.

3) The search method is organized by posing a problem to the children, which they then solve independently.

4) The research (creative) method is implemented in the process of performing creative tasks, theoretical and practical research.

Among the creative methods, projects and web quests have gained particular popularity today.

The use of problem-based learning in primary school should be combined with differentiated learning, taking into account the individual characteristics and capabilities of each child.

An important condition for the development of cognitive interests of primary school students is the introduction of interactive learning.

As noted in the "Encyclopedia of Education", interactive learning should be considered as interpersonal and pedagogical interaction, which realizes the basic need of the individual to involve him in society and the culture of society on the basis of equal partnership with the teacher, which characterizes the readiness of the subjects of the educational process for mutual understanding and mutual respect during communication and activities. It reflects co-learning, mutual learning (collective, group, learning in interaction and cooperation), in the process of which the teacher and students are equal, equal subjects. The main principle of interaction: constant interaction of students, their cooperation, communication. The teacher in this model of education is only an organizer and coordinator of interactive interaction (Kremen V., 2008, p. 883–884).

According to S. Skvortsova, when organizing subject-subject interaction of younger schoolchildren in the learning process, the teacher supports, explains, encourages dialogue, involves in independent selection of tasks, enriches with positive impressions, empathizes, directs to success, organizes self-examination, self-control, self-evaluation, involves reflection (Skvortsova S., 2015, p. 61).

The organization of the educational process with the use of pedagogical interaction stimulates the development of cognitive interests in students of primary school age. Children learn to listen to others, they develop the ability to communicate in a team, to help others, to respect the opinions of their peers, to express their thoughts clearly and concretely, they develop motivation for learning and interest in the subject.



Today, a large library of interactive learning methods has been created. Note that in the process of their use, the following requirements should be observed:

- 1) The teacher should gradually move from simple ("Microphone", "Brainstorming", "Associative bush") to more complex ("Situation analysis", "Teaching - learning", "Six hats") methods.
- 2) Do not use a large number of methods in the lesson.
- 3) Continuous monitoring of the effectiveness of using interactive methods in the educational process of primary school.
- 4) Development of methodological support for the use of interactive methods.
- 5) In the process of their application, direct the educational activity of students to self-realization, independence, and self-management.
- 6) Ensuring dialogicity (or discussion) of the educational process.

An important condition for the development of cognitive interests of primary school students is the use of integrated education, which is "based on an integrated approach", when "education is considered through the prism of the overall picture, and not divided into separate elements" (Bibyk N., 2017, p. 73)

According to V. Sydorenko, "The didactic content of the integration process consists in the interconnection of content, methods and forms of work. Accordingly, the integration of educational material from different educational subjects is carried out around a certain object or environmental phenomenon, or around solving a problem of an interdisciplinary nature, or to create a creative product, etc.» (Sydorenko V., 2018).

It is with the help of integrated learning that duplication of consideration of the same problem by different disciplines is avoided. Children learn to perceive and learn phenomena, events and objects holistically.

Integration in elementary school is carried out on several levels: integration of educational fields united in one subject "I explore the world", integration of several disciplines united by one or several united problems.

6. An important condition for the formation of cognitive interest of primary school students in the learning process is the use of game technologies. As V. Sukhomlynsky noted, "The game is a huge bright window, through which a life-giving flow of ideas and concepts about the surrounding world flows into the child's spiritual world. The game is a spark that lights the fire of curiosity" (Sukhomlynskyi V., 1976, p. 95).

As you know, children come to school with different levels of development and with different levels of preparation for learning. The school requires from the child the ability to work according to the model, to listen independently, to be attentive, to consciously perceive the educational material.

Education in primary school is designed to ensure the further development of a child's personality, the purposeful manifestation and development of abilities, the formation of skills and the desire to learn, the development of cognitive interests. It is known that play activities prevail in preschool children and primary education will be complete if it is based on well-developed play activities of children, which is not only the main form of manifestation of the child's activity, but is also a means of learning about the outside world, reflection in the form of sensations, perception, ideas.

The use of educational games in the educational process of primary school is carried out through the inclusion of children in educational games with the help of game modeling (imitation, situational modeling, role-playing and business games), didactic, cognitive, intellectual games.

For example, the following games should be used to develop cognitive interests in elementary school lessons: "From which tree are the leaves?", "Find the same object (color)", "What has changed?", "What is missing here?", "When does it happen?", "Who plays what?", "Whose instruments are these?", "Create a new word", "Chain", "Collect a word", "Winter words", "Nature", "Put the words in the huts", "Who is it?", "Colors of nature", "Sounds of nature", "Plants of our forest", "Who flies", "Who lives where and eats something", "My friends".

7. The education of modern children takes place in difficult conditions: the war with Russia, Covid affect the choice of new forms and methods that affect the formation and development of cognitive interests. Therefore, we define the next condition as the use of information and communication technologies in elementary school lessons.

Today, a large number of programs are used that encourage children to learn, explore and study the world around them, stimulate the desire to learn.

An example can be the task of composing a certain image from figures of different shapes and sizes. It can be something similar to the game "Tangram". Such programs develop not only perception, but also imagination and fantasy, as well as encourage students to engage in active cognitive activities.

With the help of the Classtime service, you can quickly and qualitatively survey the class, instantly monitoring the level of students' mastery of the material. With it, you can easily interest and unite students and add game elements to learning. A convenient and simple tool for evaluating class work in real time is the Class Dojo service with a Ukrainianized interface, cute avatars that are interesting for children to perceive.

The Wizer.me service will help you create interactive worksheets that are used in distance learning, for homework, and for working in the classroom on an interactive whiteboard.

You can introduce the game "Living phraseology" on the LearningApps.org platform into the educational process.

It is appropriate to use online resources for creating mind maps in the educational process of primary school to stimulate students' cognitive interests. They are considered as a map of the mind, memory or thoughts and which are a display of words, ideas or tasks, for generating, structuring or displaying ideas and memorizing a large amount of information in the process of learning or developing projects. In elementary school, she helps teachers present new material to children who have difficulty concentrating on information or consolidate previously learned information. For this purpose, the following services should be used in the learning process, especially distance learning: Mind Map, MindMeister, Buble.us, Mindomd, Cacao.



8. Use in the educational process of the optimal system of creative training exercises and cognitive tasks in accordance with the content of the educational material, features and capabilities of students. It is worth implementing frontal, group and individual.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The level of development of cognitive interests affects the child's behavior, the formation of his spiritual and intellectual sphere, mental, communicative and moral and ethical abilities. Their formation is a rather long process that requires appropriate conditions and depends on the organization of the educational process. The mentioned conditions, as well as the correspondence of the organization of the educational process to the age characteristics and intellectual capabilities of younger schoolchildren, influence the desire to learn and contribute to the development of their cognitive interests, the education of a creative personality, develop attention, memory, observation, critical thinking, stimulate the child to self-improvement and self-realization.

The level of development of cognitive interests affects the child's behavior, the formation of his spiritual and intellectual sphere, mental, communicative and moral and ethical abilities. Their formation is a rather long process that requires appropriate conditions and depends on the organization of the educational process. The mentioned conditions, as well as the correspondence of the organization of the educational process to the age characteristics and intellectual capabilities of younger schoolchildren, influence the desire to learn and contribute to the development of their cognitive interests, the education of a creative personality, develop attention, memory, observation, critical thinking, stimulate the child to self-improvement and self-realization

REFERENCES

- Bibik, N.M. (1998). Formuvannya piznavalnykh interesiv molodshykh shkolariv: monohrafiia. [Formation of cognitive interests of younger schoolchildren: monograph]. Kyiv: Lybid, 199 s.
- Bodnar, A. Ya. (2014). Shliakhy formuvannya piznavalnoho interesu osobystosti v protsesi profesiinoho samovyznachennia. [Ways of forming the cognitive interest of the individual in the process of professional self-determination]. Naukovi zapysky NaUKMA. Pedahohichni, psykholohichni nauky ta sotsialna robota. T. 162. S. 32-38
- Vasyl Sukhomlynskyi: nauk. Pratsi [Vasyl Sukhomlynskyi]. / uporiad. ta nauk. red. P.Sikorskyi, D.Hertsyuk. (2018). Lviv : Badikova N.O. 252 s.
- Vozniuk, N.A. (2019). Psykholoho-pedahohichni osnovy rozvytku piznavalnykh interesiv molodshykh shkolariv na prykladi urokiv kursu «Ia i Ukraina». [Psychological and pedagogical foundations of the development of cognitive interests of younger schoolchildren using the example of the lessons of the course "I and Ukraine"]. Ternopil. 33 s.
- Danchenko, A.O. (2020). Rozvytok piznavalnoho interesu uchniv starshoi shkoly na urokakh matematyky (riven standartu). [Development of cognitive interest of high school students in mathematics lessons (standard level)]. Sumy. 74 s.
- Derzhavnyi standart pochatkovoï osvity. [State standard of primary education] /. Zatverdzhenyi Kabinetom Ministriv vid (21.02.2018), №87. URL: <https://zakon.rada.gov.ua/laws/show/87-2018-%D0%BF>.
- Entsyklopediia osvity [Encyclopedia of education] / hol. red. V. H. Kremen. (2008.) / Kyiv : Yurinkom Inter, 1040 s.
- Karnaukhova, A.V., Samchenko I.V. (2018). Psykholoho-pedahohichni osoblyvosti rozvytku piznavalnykh interesiv uchniv u protsesi pochatkovoï shkoly. [Psychological and pedagogical features of the development of students' cognitive interests in the process of elementary school]. Molodyi vchenyi. № 4 (5b). S. 279-282.
- Komenskyi, Yan Amos. (1940). Velyka dydaktyka. [Great didactics]. Vybrani pedahohichni tvory: u trokh tomakh. T. 1. / pid red. z biohraf. narysom i prymitkamy prof. Krasnovskoho A. A. Kyiv : Rad. shkola. 248 s.
- Kontseptsiia Novoi ukrainskoi shkoly (14.12.2016). [Concept of the New Ukrainian School]. Zatverdzhena Kabinetom Ministriv Ukrainy № 988-r. URL: <https://mon.gov.ua/storage/app/media/zagalna%20serednya/nova-ukrainska-shkola-compressed.pdf>
- Lozova, V.I. (1990). Piznavalna aktyvnist shkolariv: spetskurs iz dydaktyky [Cognitive activity of schoolchildren: special course on didactics: teaching. manual for pedagogues institutes]: navch. posibnyk dlia ped. in-tiv. Kharkiv : Osnova. 89 s.
- Lukashuk, I.V., Konovalchuk, I.M. (2020), Pedahohichni chynnyky rozvytku piznavalnoi samostiinosti molodshykh shkolariv. Maisternist komunikatsii u mystetskii i profesiinii osviti: zbirnyk naukovykh prats [Pedagogical factors in the development of cognitive independence of younger schoolchildren. Mastery of communication in art and professional education: a collection of scientific works] . / za zah. red. N.Ie. Kolesnyk, O.M. Piddubnoi, O.M. Marushchak. Zhytomyr : FO-P «N.M. Levkovets». U 2-kh ch. Ch. II. S. 167-170.
- Nova ukrainska shkola: poradnyk dlia vchytelia (2017). [New Ukrainian school: a teacher's guide] . / Pid zah. red. Bibik N. M. K.: TOV «Vydavnychi dim «Pleiady». 206 s.
- Savchenko, O.Ia. Dydaktyka pochatkovoï osvity: pidruchnyk dlia studentiv pedahohichnykh fakultetiv.(2012). [Didactics of primary education: a textbook for students of pedagogical faculties.]. Kyiv : Hramota. 504 c.
- Sydorenko, V.V. (2018). Kontseptualni zasady Novoi ukrainskoi shkoly: kliuchovi kompetentnosti, tsinnisni oriientyry, osvithni rezultaty. [Conceptual principles of the New Ukrainian school: key competencies, value orientations, educational results]. Metodyst. No5. traven. S.12
- Skvortsova, S. O. (2015). Teoretychni zasady formuvannya metodychnoi kompetentnosti maibutnikh uchyteliv u navchanni matematyky. [Theoretical foundations of the formation of methodological competence of future teachers in teaching mathematics]. Suchasni informatsiini tekhnologii ta innovatsiini metodyky navchannia u pidhotovtsi fakhivtsiv: metodolohiia, teoriia, dosvid, problemy. Vyp. 43. S. 59–64.
- Sukhomlynskyi, V.O. (1977). Vchyty vchytysia. [Learn to learn]. Vybr. tvory. V 5-ty t. T.5. K.: Rad. shk. S. 426-436
- Sukhomlynskyi, V.O. (1977). Na trokh kytakh. [On three whales]. Vybr. tvory. V 5-ty t. T.5. K.: Rad. shk. S. 339-343.
- Sukhomlynskyi, V. O. (1976). Sertse viddaiu ditiam. [I give my heart to children]. Vybr. tvory. V 5-ty t. T.3. K.: Rad. shk. S. 7-279.

Received

03.08.2022

Accepted

17.08.2022