

**DEVELOPMENT OF CHILD SCIENCES IN UKRAINE  
IN THE EARLY 20th CENTURY**

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## РОЗВИТОК НАУК ПРО ДИТИНУ В УКРАЇНІ НА ПОЧАТКУ ХХ ст.

*У статті зосереджено увагу на історії становлення наук про дитину в Україні; висвітлюється послідовність виникнення педологічного руху, який був поширений на початку ХХ ст. у всьому світі; розглядаються наукові витоки знань про дитину і на цій основі характеризуються підходи, що визначали напрями досліджень у цій сфері. З'ясовано, що виокремлення педологічного напрямку спричинили два наукові фактори: з одного боку, вчені поглиблювали психолого-педагогічні експериментальні знання, шукаючи шляхи удосконалення педагогічного процесу, методик та технологій навчання; з іншого – досягнення природознавчих наук активізували дослідження людини, що також зумовило увагу до періоду дитинства. Початок ХХ ст. означений плюралізмом думок, підходів, напрямів вивчення дитини. Фахівці різних наукових галузей намагалися пояснити особливості її фізичного, психічного, духовного, соціального розвитку, особливу увагу надаючи виявленню патологій. Педологія синтезувала усі найважливіші наукові студії та здобутки, що стосувалися вивчення розвитку особистості дитини. Визначальним був вплив цієї науки на подальший розвиток педагогіки, психології, дефектології. Доведено, що найбільшого злету педологія досягла в 20-ті рр. ХХ ст. Її зміст характеризувався психологічними, анатоμο-фізіологічними, біологічними і соціологічними підходами до розвитку дитини. В Україні сутність наук про дитину розширювалася завдяки культурно-історичному підходу. Акцентовано на тому, що джерелом сучасних наук про дитину (дитячої психології, педагогічної психології, соціальної педагогіки, спеціальної педагогіки і психології, педевтології, шкільної гігієни, етнографії дитинства, генетичної психології, дитячої психіатрії, психології праці, біології поведінки людини та ін.) є педологія.*

**Ключові слова:** науки про дитину; педологія; напрями вивчення дитини; дитинознавство; розвиток і виховання дитини.

## DEVELOPMENT OF CHILD SCIENCES IN UKRAINE IN THE EARLY 20th CENTURY

*The article focuses on the history of child sciences in Ukraine; the emergence of the paedological movement, which was spread worldwide in the early 20th century world, is demonstrated; the scientific origins of the knowledge about the child are examined and on this basis the approaches that determined the areas of research in this field are characterized. It has been found that the paedology being singled out was caused by two scientific factors: on the one hand, the scientists accumulated psychological and pedagogical experimental knowledge, looking for ways to improve the pedagogical process, methods and techniques of teaching; on the other, the achievements of the natural sciences intensified the study of man in general, which also caused the attention to the childhood period. The early twentieth century was marked by pluralism of opinions, approaches, and areas of study of the child.*

*Specialists in various scientific fields tried to explain the features of the child's physical, mental, spiritual, and social development, paying special attention to the detection of pathologies. The paedology synthesized all the major scientific studies and achievements related to the development of the child's personality. The influence of this science on the further development of pedagogy, psychology, and defectology was decisive. It has been proved that the greatest rise of paedology was in the 1920s. Its content was characterized by psychological, anatomical, physiological, biological and sociological approaches to the development of the child. In Ukraine, the essence of child sciences has been expanded thanks to a cultural and historical approach. It is emphasized that the source of modern child sciences (child psychology, pedagogical psychology, social pedagogy, special pedagogy and psychology, paedeutology, school hygiene, ethnography of childhood, genetic psychology, child psychiatry, psychology of labor and human behavioral biology) was paedology.*

**Key words:** *child sciences; paedology; areas of child study; child studies; development and upbringing of the child.*

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### **Introduction**

The modernization of the society, a constant progress in the scientific and technical sphere, and an increased interest in human capabilities require a comprehensive consideration of human internal organization. On the one hand, the processes of differentiation of the sciences are intensifying, and on the other – the knowledge is being integrated. Research methods become complex. The human sciences, which study the material-structural, functional, systemic features of the man at certain stages of life, are rapidly developing. The holistic approach to the study of a person, in particular, a special period in her life – childhood, is being implemented. The achievements of the special sciences single out the special functions and regularities of the child's development in order to outline the guidelines for improving the sphere of education, to form a general concept of childhood. The need for interdisciplinary research in this field is evidenced by historical experience. The early twentieth century was characterized by a specific attention to the problems of the child and childhood. The culture of that time had a peculiar interest in the child that originated simultaneously in different countries. The science of the child was also popular in Ukraine, acquiring a characteristic paedological orientation. Paedology, combining different concepts, trends, and views, tried to explain the peculiarities of the child's development. Therefore, it is important today to investigate its content, to identify the areas of scientific research that explained the essence and the nature of the child's body, infant behavior and activity.

**The analysis of recent research.** The attention to the problems of the child in the discourses of scholars is caused by the awareness of childhood as a global cultural phenomenon. The change of the status of the child and childhood in the

society requires new approaches to their interpretation. The child is seen as an integrity that must be studied in various ways to determine the specifics of self-oriented education, which would be directed to self-development, the formation of life competence (Luparenko, 2015). The idea of a systematic study of a child's development is not new, it has its history. Scholars analyze the philosophical, social, pedagogical, psychological, ethnological aspects of this problem; enhance the knowledge about the status of childhood, regulation of relations between the adult and children worlds, synthesizing the achievements of the past and present.

Recently, the study of pedagogical ideas and principles that developed in the early twentieth century has been intensified. The works of O. Sukhomlynska, who considers the peculiarities of the Ukrainian paedology, characterizing the activity of the Kyiv and Kharkov Pedagogical Schools, the relation of paedology to behaviorism, reflexology, and psychotechnics, are distinguished by their thoroughness. It is reflexology that the scholar considers the foundation of paedology. In her research she also argues that from a paedological viewpoint, the child was considered the center of the pedagogical process, was its driving force and the teacher played an auxiliary role (Sukhomlynska, 1996). The results of the historical reflection help solve the theoretical, methodological and practical problems of today. In particular, scholars establish the real driving forces for complex studies of the child's personality, analyze the factors of the existence of national pedagogy, and determine the socio-ideological, theoretical and philosophical determinants of the idea of a holistic study of the child's personality (Bolotnikova, 2004).

In addition, the experience and role of Soviet scientists of that period in the development of child sciences are summarized. The views of V. Bekhterev, who substantiated the ontology of psychological science based on empirical data and research practices, are analyzed (Byford, 2016). Much attention is paid to educators who worked in Ukraine. Thus, L. Smolinchuk focuses on the scientific and pedagogical activity of O. Zaluzhny, who developed his own methodology of experimental research, described the requirements for tests aimed at the study of the characteristics of the child's body, the development of the child's personality, its socialization, talent, success, knowledge control (Smolinchuk, 2008). Significant is the research of T. Yanchenko (2017), who highlights the logical and structural model of the scientific and practical development of paedology in Ukraine and determines the influence of paedological approaches on the system of scientific knowledge about the child. The author focused on the ideas of scholars of the time, which became the basis for the emergence and expansion of areas of child sciences.

The number of research on the influence of paedology on the formation of scientific branches is increasing, as the child sciences are developing now, which to some extent were components of paedology: the child psychology, psychodiagnosis, theory of education, didactics, pedagogical anthropology, social pedagogy, etc. However, its place in the system of pedagogical sciences is insufficiently studied.

**The purpose of the article** is to understand the main directions of research of the child's personality in the early twentieth century and to identify an area that

was influenced by advanced, at that time, paedology based on the understanding of the origins of the child sciences.

### **The scientific origins of the development of the child sciences**

The late 19th and early 20th centuries were characterized by an increased attention of scientists to human problems, the study of its functional, systemic features. This was preceded by a scientific and technological revolution that led to significant transformations in production, understanding of social relations (changing women's status and child status), economy, attitudes to social institutions (in particular, the need for general education). Important discoveries in science, the improvement of technical devices have expanded the scope of scientific research methods (especially physical and biological), experiments, measurements, and statistical data processing and observation results. The evolutionary theory and discovery of the cell confirmed the idea of development, which gave birth to new sciences, increased the number of trends in philosophy, psychology, sociology, pedagogy, anthropology, physiology, biology, ethology, genetics, etc.

Scientists in various fields tried to study man, synthesizing the knowledge acquired by that time. The achievements of I. Sechenov and I. Pavlov in the field of physiology, psychoanalysis of Z. Freud, eugenics of F. Galton, the racial theory of Gobineau, the discoveries in medicine and psychiatry of J.-M. Charcot, the behaviorism of J. Watson, etc., exerted a great impact on the explanation of human life and behavior. The spirit of the time significantly influenced the study of the child and the desire to know the world of childhood. In particular, the study of the uterine (ontogeny) and extra-uterine (phylogeny) periods required explaining the peculiarities of these stages of development. It was thought that their justification would enable a generalization of the education rules. This in turn aroused the desire for a comprehensive study of the child (J. Baldwin (USA), W. Preyer, E. Meyman (Germany), A. Binet, G. Compeyre (France), E. Claparede (Switzerland), J. Desmaures and O. Decroly (Belgium) and others).

The first globally recognized work, which outlines the stages of the child's development (from the birth to the age of three years), was the book "The Soul of the Child" ("Die Seele des Kindes") by W. Preyer. It has become the basis of systematic child research in the whole world. It was also known in Ukraine. The translation of the book was published in the Russian Empire in 1891, edited by the Ukrainian scientist I. Sikorsky, who noted that the work is extremely significant in terms of thoroughness, wideness and novelty, and it should become a household book for parents and educators ([Preyer, 1891](#)).

Significant was the activity of the American S. Hall, who transformed the child study into a socially significant phenomenon, and his student O. Hrisman suggested in 1893 creating a new science – paedology (from the Greek παιδος – child and Greek λογος – science). A certain stage in the study of the child was marked by the book *Century of the Child* (1900) by E. Key, a Swedish ideologist of reformist pedagogy, a leader of the women's movement, and a teacher, which was translated into various European languages and has endured a large number of reprints. The

scholar emphasized the need to find an understanding with the child, comprehending its life, the inner world; called for the education of mothers, study of the children's hygiene, nutrition, care and upbringing.

At the same time, various ways of raising the child were introduced in different countries based on the study of the child. On the one hand, the scholars tried to relate the theoretical knowledge of the time and to explain the nature of the child, and on the other, they sought practical methods of personal development. The reformed experimental pedagogy, which was rapidly implemented through educational practice, became part of a "new education", a "new school". A hallmark of the pedagogical concepts of the time (A. Binet, O. Decroly, J. Dewey, G. Kerschensteiner, W. Kilpatrick, E. Meyman, M. Montessori, A. Ferrier, R. Steiner and others) have become an in-depth focus on the child's personality, free upbringing, individualization and differentiation of education. The postulate was proclaimed paedocentrism – pedagogy stemming from the child. The educational reform movement had various names: "reform pedagogy", "labor school" in Germany; "new pedagogy", "new school" in France; the "school of life" in Belgium, etc., and the sciences of the child had a different path of development. Let us dwell on the development of child sciences in Ukraine in the early twentieth century.

#### **Development of paedological trends in Ukraine**

It should be noted that in the early twentieth century the Ukrainian lands were part of the Russian Empire and the Austro-Hungarian Monarchy. Therefore, the development of the science and education was determined by various socio-political factors. Since the main part of the territory of Ukraine was under Russian hegemony, the views of national scholars were largely formed under the influence of the Russian pedagogical thought and could have monarchical and anti-Semitic views. In addition, it should be understood that the Ukrainian scholars could only realize themselves in the places where scientific school existed and developed. A considerable part of scholars remained to work in Moscow or St. Petersburg. Therefore, research in the field of child sciences was conducted by Ukrainian scientists all over the Russian Empire, which complicates the systematization of data about them.

The first Ukrainian scholar to use experiments in the study of child psychology was I. Sikorsky. He is considered the founder of experimental psychology in Ukraine. He initiated the opening of the Medical and Pedagogical Institute in Kyiv which was the world's first Institute of Child Psychology. He based his concept on a holistic study of the child, proving the idea of achieving harmony of physical, mental and spiritual development and the dependence of the adult character on the conditions of upbringing in the first years of life. Therefore, he believed that the subject of study should be the soul of the child with its norms and deviations (Sikorskiy, 1901).

At the same time, a systematic approach to the study of the man in its integrity was implemented by the world-famous Russian scientist V. Bekhterev in St. Petersburg. He is considered the founder of paedology in Russia. He argued that somatic,

physiological, and psychic phenomena are different sides of a complex human system, using a comparative method of studying the brain and the psyche. He saw the future of psychology in transforming it into a new scientific discipline – general psychobiology. He gradually proved the need to study the child in the following way: the use of reflexology methods for examination; investigation of the relationship of the autonomic nervous system, the CNS and the glands of the internal secretion; comparative study of the ontogeny of human and animal behavior; study of all brain sections; environmental research; the impact of the social environment on the development; the child defects; the child psychopathy; neuroses of childhood; reflexology of work; reflexological pedagogy; reflexological method in literacy teaching ([Bekhterev, 1927](#)).

Another famous St. Petersburg scientist was O. Nechaev, who founded the laboratory of experimental pedagogical psychology with the Pedagogical Museum (1901) and founded pedagogical courses (1904) to study the man as a subject of education. He noted that paedology was a broad field of knowledge about the child as a subject of education (K. Ushinski's disciple). It encompasses all knowledge about a person from his/her first day of birth until the end of school age, i.e., approximately 21 years ([Nechaev, 1907](#)). Under his initiative, the Russian Congresses on Educational Psychology and Experimental Pedagogy were organized. Simultaneously, a concept of subjective psychology was developed in St. Petersburg by a Ukrainian psychologist O. Lazursky, who wrote the Program for the Study of Personality, proving the need to use three methods of obtaining empirical data: experiment, observation, and self-observation. He worked at the V. Bekhterev Clinic for Mental and Nervous Diseases, where he then headed the psychological laboratory, and taught at O. Nechaev's courses ([Lazurskiy, 1904](#)).

It should also be noted that the paedological ideas were spread in Moscow by the neuropathologist and defectologist G. Rossolimo who was born in Ukraine. At his own expense, he opened the Clinic for Nervous Diseases of Childhood (1911), which was later reorganized into the Institute of Child Psychology and Neurology with the Moscow University. He developed the method of "psychological profiles" for the study of intelligence regardless of age. The test complex became a means of diagnosing a child's mental retardation, encompassing studies of attention and will, accuracy and strength of perception, as well as associations ([Rossolimo, 1911](#)).

As we can see, the areas of study of the child in Ukraine have evolved through research in the field of experimental psychology, pedagogical psychology, experimental pedagogy, which were carried out in newly created laboratories, institutes, departments. Scientific societies appeared, special journals were published to discuss child development issues. Scientists tried to solve the problems of primary education, in particular, to provide training for all, seeking appropriate methods. Tests were actively used to determine the level of intelligence. They also focused on the individual mental characteristics of children, psychology of learning, teaching techniques, studied the age potential of involving children in learning and education.



In the article “Paedology or the Science of Children” (published in 1911) Ya. Chepiha (a teacher and scholar from Kherson region) called paedology the experimental pedagogy, defining its tasks and basic methods of research: experiment, observation, self-observation and questioning. He considered the task of paedology as the study of the nature of the child and the organization of a new system of education aimed at the development of an individual. The author linked the development of children to their education, schooling, but provided that the programs and teaching methods were adapted to the needs of the children (Chepiha, 2003, p. 209).

In the early twentieth century the need for a common education for all children was asserted. In this context, paedology promoted a child-centered position, humanistic ideas, and guidelines for understanding children, creating conditions for the development of their abilities and interests. Special attention was given to the training of the educator, who was to know the psychophysical nature of children and the laws of their growth. In the Russian Empire, the views of the scientists of the world on the “new education” were positively accepted. This is evidenced by the publishing of books about the child: V. Lay “Experimental Didactics” (1905), W. Drummond “Introduction to the Study of the Child” (1910), J. Baldwin “Spiritual development of the child’s individual and the human race. Methods and Processes” (1911), A. Chamberlain “The Child. Essays on Human Evolution” (1911), E. Meyman “Lectures on Experimental Pedagogy” (1911), S. Hall “Paedology as the Basis of Exact Pedagogy” (1912), etc.

In addition to the European influence, the emphasis in the development of child sciences changed due to the achievements of the national scientists. The experimental educators and psychologists were aware that in addition to identifying the psychological characteristics, it was necessary to study the physical life of the child, in particular, the mutual influence of the body, external circumstances, and social conditions. An impetus for scientific exploration was the achievements of experimental science, medicine, and above all, the popularization of the evolutionary theory. Physiological and biological studies of the child intensified, especially of the prenatal and early stages of life. Gradually, the view of education as a process of biological and social development deeply entrenched. On this basis, the child psychology and the genetic psychology emerged. The initiators of the research were medics, physiologists, biologists, who paid special attention to the standardization of indicators of physical (sometimes mental) development, norms and pathologies, investigated the problems of growth, backwardness, impact of nutrition on children, etc. baby hygiene and health care developed. The areas of research were determined by specialization. Anyone who was somehow involved in the study of the child was called a “paedologist”. The content of paedology was characterized by psychological, anatomical, physiological, biological and sociological approaches to the development of the child.

It should be noted that in the Ukrainian science the cultural-historical (cultural-anthropological) trend in substantiation of the markers of the child’s formation and development was clearly traced. In particular, Ya. Chepiha, as a representative of the



biogenetic trend, associated the development of the child's psyche with the development of social forms and phenomena, and the educational process – with psychophysiological data and living conditions. He believed that the Ukrainian education system should be built taking into account the achievements of biology, physiology, genetics, necessarily supplementing cultural and historical data. The attention to culture is also evidenced by the works of Ukrainian historians and ethnologists of the time. In particular, significant is Mark Hrushevsky's "The Child in the Customs and Beliefs of the Ukrainian People" (published in 1906–1907), which reflects popular concepts of pregnancy and peculiarities of maternal behavior, heredity, physiology of parents, peculiarities of the child's life, daily activities, hygiene, ways of education.

The development of cultural and historical trend was influenced by political, social, economic, scientific factors. For example, the problem of Ukrainians' access to education has led to a fervent search for a committed public to help in the creating a national school on their own cultural basis, emphasizing the need for ethno-relevant reality for the child. This was especially the case in the western territories of Austria-Hungary, where Ukrainian education had no state status at all. It is here that the national education was the main focus. One of the centers of culture was the Church. The study of the child was based on the Christian outlook, compliance with the principles of nature and culture. The education was associated not only with the natural features of the child, but also with the importance of self-development and the moral improvement of the human nature.

That is, paedocentric ideas of education were also widespread in the western lands. Scholars and educators studied the child psychology, school-age psychology, modern-day psychology. Notable in this context is the work of S. Baley, who understood the personality as a psychophysical integrity. He published the first textbooks on psychology in the Ukrainian language. He deemed the personality of the teacher, the psychology of creativity as extremely important, and was one of the founders of paedeutology. He regarded the education from the standpoint of genetic (dynamic), age psychology, developmental psychology, social psychology, psychopedagogy. He initiated the activities of psycho-pedagogical consultations, mental hygiene centers, where the abilities of children, emotional and volitional sphere, character problems through psychometry and psychological testing were studied (Kvas, 2011).

In our opinion, the period of the Ukrainian People's Republic was a special stage in the development of child sciences in Ukraine. O. Muzychenko (1918–1919), I. Ohiyenko (1918), S. Rusova (1996), S. Siropolko (1919), Ya. Chepiha (2003) and others intensified their work on the implementation of the concept of the Ukrainian National School. For example, S. Rusova noted that "... we must look at the child, assessing his/her own psychological personality, which consists of intertwined personal physical and spiritual traits, and at the same time absorbs all the cultural and ethnographic features of her environment" (Rusova, 1996, p. 43). The researcher promoted "individualistic pedagogy" – a bioanthropological, humane social science

that needs a “philosophical ground for its conclusions”; she disseminated the ideas of scientific training of teachers, educators and the obligatory study of philosophy, sociology, ethics, psychology, anatomy, physiology, anthropology.

O. Muzychenko (1918–1919), a practicing teacher and the best expert in the European theory of school and teaching methods, promoted the paedocentrism and the principles of humanistic education. Having a thorough pedagogical education, he held a leading position among prominent figures in the psychological and pedagogical science. He developed a general didactics course with practical lessons in paedology. He introduced the “Tables on the study of individual characteristics of the child”, developed by O. Nechaev to his students (Trynus, 2012, pp. 18, 21). O. Muzychenko advocated the change of curricula, methods and the organization of learning at school in order to achieve individualization and to organize the education in accordance with the abilities and interests of students. In his opinion, the task of the school is “to explain, to liberate, and to organize the children’s consciousness” (Muzychenko, 1918–1919, p. 205).

The pedagogical trend of the child’s study reached its peak in the 1920s. It was then that various concepts and trends in the child sciences were consolidated. The need for a comprehensive systematic study of the child was proclaimed. The system of research departments, laboratories, educational and pedagogical stations, other institutions and institutions became extensive. The largest centers of research were Kharkiv, Kyiv, Odessa, Dnipropetrovsk. In different educational establishments, the departments of social pedagogy and medical pedagogy, centers of paedological service were created. The Commission of Pediatric Studies outlined the plans for the study of the child, instructions for anthropometric measurements; it developed psychosociological charts, used the biographical method, observation, experiment, testing, etc. Based on the results of empirical research, the connection of theory with practice was strengthened, the educational work with children was improved, and the corresponding posts of paedologists in educational institutions were introduced. Paedology became obligatory in the training of specialists; the first textbooks were published (P. Blonskiy (1934), O. Zalkind (1934), O. Zaluzhnyy (1933), G. Kostyuk (1933), S. Molozhavyy (1924), etc.).

Educators organized their work, taking into account the following aspects: a holistic approach to the study of the child; an analysis of genetic prerequisites of the child’s development (role of the prenatal period of development, heredity, etc.); study of the social conditions of the child’s life (the influence of the social environment on mental, morphological, anthropological parameters of the development); development of practical recommendations (consultations for children, parents, availability of appropriate diagnostics). During the research complex data were obtained on the properties of the child: physiological (illness, health), mental (memory, thinking, attention, imagination), social (family life, cultural level of parents), pedagogical (characteristic of success, attitude to learning) (Blonskiy, 1934, pp. 87–88).

A particular attention was given to handicapped children, the category also including the children with behavioral problems. They were studied within the

framework of the special paedology; scholars developed various classifications of such children. The most complete was the classification of L. Vygotsky (Vygotskiy, 1928), published in his report at the First Paedological Congress. It was the Ukrainian paedology that achieved a considerable success in the practical work with defective (difficult) children. Our paedologists believed that most of them could study and be educated in institutions for normal children, with an appropriate support (cooperation between the teacher, paedologist and physician) (Yanchenko, 2017). Therefore, medical pedagogical offices (dealing with defective children) and offices of social pedagogy (social education) (investigating normal childhood), as well as sections of preschools, orphanages, town schools, rural schools were organized at the paedological stations.

Since paedology synthesized the knowledge acquired by different child sciences, Professor S. Ananyin (the Head of the Kyiv Research Department of Pedology) suggested dividing the child sciences into theoretical ones (the child was the subject of the study itself), practical ones (considered the child as an object of education), and normative (studied the process of the child's education). He believed that the task of the descriptive sciences (physiology, physiological chemistry, anthropology, ethnology with ethnography, psychology, as well as everything else that was included in the theoretical) was to study the natural characteristic features of the child, while the normative sciences (hygiene and pedagogy) were to form a cultural individual who would meet the requirements of the society. The paedology, in his opinion, was to study the peculiarities of the child through the prism of the development of its natural features in combination with the social education (Ananin, 1923).

According to T. Yanchenko (2013), during the domination of the Soviet ideology and functioning of the Bolshevik state, there was a gradual Sovietization of the scientific principles of paedology in Ukraine. It acquired the traits that matched the political and cultural demands of the Soviet society. In particular, its subject changed: the attention of scholars was directed from studying the child itself to the study of the children's collective; the priority in the formation of personality was given to the influence of the social environment. The educational system in the conditions of communist society had to be aimed at the education of the "new" person needed by the state.

Most of the paedologists refuted the biogenetic views and took the position of sociogeneticism. The concept of "social education" appeared, which was implemented on the basis of collectivism. The paedological theory of the collective (collective paedology) intensively developed since 1924. A prominent representative of this trend was O. Zaluzhny (Kharkiv Pedagogical School), who led the development of methods of research of collectives in the Soviet Union, studied the influence of the environment on the general development of the child and its behavior and progress at school ("Methods of studying the children's collective. Introduction to the collective pedagogy" (Zaluzhnyy, 1926)). He used the term "collective-centrism" as a principle of social education of children.

The trends in the child research were influenced by the connection of paedology with psychotechnics (studied a person from the standpoint of the work process

organization), which was intensively developing in Ukraine. M. Syrkin, a member of the Ukrainian Research Institute of Labor, is considered a “child psychotechnician”. Based on the reflexological principles, he regarded the educational activity as a work, measured the technological side of the teaching process organization. The results of the research made it possible to develop the indicative pupils timetable (time of lessons, breaks, coordination of the lesson timetable) and the chronology of activity changes at the lesson, which were given in the teachers’ books. The integrated training and the formation of children’s work skills were given the leading role.

The synthesis of paedology and psychotechnics laid the foundations for career guidance. The students were introduced to the human body as a “working machine”. The career guidance was differentiated by age, sex, anatomical, physiological, mental, regional, environmental characteristics. On this basis, the mechanics of the human body emerged and evolved – biotechnology, which was engaged in measuring calories, studying the influence of the food on the body activity, studying the basic elements of the “human machine” (bone, muscles, nerve tissue), methods of combating fatigue. At the same time, scientists noted that the organisms of an adult and a child differ in a set of characteristic features (rhythm of life and work, stability of attention, the need for alternation of work and rest, fatigue, etc.).

Despite significant achievements in the study of the child, the 1930s became dramatic for paedology. At that time, the totalitarian Soviet state with a rigid hierarchical system of relations was established, and an ideological campaign was conducted “for the purity of the Marxist-Leninist methodology”. And after the Resolution “On paedological distortions in the system of People’s Commissars for Education” (1936) was adopted the word “paedology” was removed from the circulation. It was declared a bourgeois pseudoscience that ignored the needs of education. Having destroyed all the achievements in this field, there was a break of theory with practice. The “interest” in the personality of the child, the development of his personality faded for many years to come.

### **Conclusions**

The early twentieth century is characterized by pluralism of thoughts, approaches, and areas of the child study. Specialists in various scientific fields tried to explain the features of the child’s physical, mental, spiritual, and social development, paying special attention to the detection of pathologies. On the one hand, through research in the field of experimental psychology, educational psychology, experimental pedagogy, scientists improved the learning process, developing various pedagogical methods and technologies. The ideas of free education and reform pedagogy were introduced, which required the study of the child. On the other hand, the development of natural science and the diversity of scientific methods intensified the study of the man as a whole, which also led to the attention to the childhood. These two factors, in our opinion, led to the rise of a separate paedological science. Paedology synthesized all the major scientific studies and achievements related to

the study of the development of the child's personality. Determinant was its influence on the further development of pedagogy, psychology, defectology.

The paedology reached its peak in the 1920s. Its content was characterized by psychological, anatomical, physiological, biological and sociological approaches to the development of the child. In Ukraine, the essence of child sciences was expanded thanks to the cultural and historical approach. In this context we can single out the child sciences, the source of which can be considered paedology: the child psychology, developmental psychology, pedagogy of creativity, pedagogical psychology, social pedagogy, special pedagogy, pedagogy, school hygiene, ethnography of childhood, child science, social psychology of childhood, genetic psychology, child psychiatry, psychology of work, biology of human behavior, etc.

The paedology explained and solved the problems of development and education of children that are still relevant today. First of all, it concerns the individualization of the educational process, the creation of psychological services in educational institutions, the education of children with special needs. Organizing education in the interests of childhood is impossible without taking into account the quality of mental, psychophysiological, and personal changes of the modern child. Therefore, the diagnostic techniques developed by pedagogues are a valuable source for comprehensive research of the child and childhood today, which defines the target of further scientific research in this field.

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