

Origins of inclusive education of students in Ukraine

Nataliia Dichek^{1,*}

¹Institute of Pedagogy of the National Academy of Educational Sciences of Ukraine, 52-D Sichovykh Striltsiv Str., Kyiv, 04053, Ukraine

Abstract. This study deals with the author's version of the reconstruction of history of formation and development of the state approach to the education of children with disabilities (or special educational needs) in Ukraine in the period 1920–2019. For the first time, a systematic coverage of the experience gained by Ukraine in correctional and rehabilitation work and education of such children and the individualization of education of students with primary academic failure at primary school. The contribution of Ukrainian teachers and psychologists to the development of special pedagogy is briefly covered. Particular attention is paid to the ideas of Yu. Hilbukh (1920–2000) in the context of primary school education for students having difficulties in mastering the curriculum, which we consider a variable annunciator of inclusive education. The change of the pedagogical paradigm concerning the education of children with special needs is substantiated due to the introduction in 2017 of modern international principles of inclusive education. In conclusion, it is stated that the introduction of inclusive education indicates the modernization of Ukraine's humanitarian policy in the direction of further humanization of education. At the same time, it is emphasized that it would be wrong not to take into account the scientific and experimental base created in previous years for the study of such children and the experience of their education, rehabilitation and socialization.

1 Introduction

Since 2017, the ideas of inclusive education have been introduced in the educational space of Ukraine. They are aimed at ensuring the acquisition of knowledge by pupils or students with special educational needs “in the general educational environment at their place of residence”, which is an alternative to the previous residential school system, according to which they study separately from other children, or receive home and individual education” [1]. That is, in our country there is a renewal, a change in the pedagogical paradigm of education and upbringing of children who have special needs and disabilities, and therefore need an accessible educational environment, where, which is the most important, they “do not feel different”. The novelty of the pedagogical approach under the Convention on the Rights of Persons with Disabilities is to overcome “relative and environmental barriers that prevent the full and effective participation (of persons with disabilities) in society on an equal footing with others” [2]. According to the amendments made in 2016 to the Law of Ukraine “On the Fundamentals of Social Protection of Persons with Disabilities in Ukraine”, article 1 defines that a person with disability (formerly a “disabled person”) is a person with a persistent dysfunction that may lead to the restriction of his vital activity, as a result of which the state is obliged to create conditions for the exercise of its rights on an equal footing with other citizens and to ensure its social protection” [3].

Ukraine has more than a century of experience in education, upbringing, medical support of children and youth with special needs (due to psychophysical disabilities), as well as rehabilitation and correctional work with their various categories. The beginning of the organization of the state system of special children education, or as they were used to be called in scientific terms of the early twentieth century “Children with developmental disorders” or “defective children” took place in the difficult 1920s. For reasons of tolerance, we will use the term “special” children. When Ukraine became a party of the International Convention on the Rights of Persons with Disabilities (2006), the use of terms that “degrade the dignity and worth of a person with mental and physical disabilities” [2] is considered inhumane and unacceptable [3]. For reasons of tolerance, we will use the term “special” children [3].

At the same time, a separate scientific branch began to be formed – the defectology (today – special or correctional pedagogy). At present, in Ukraine, on the basis of child-centered principles in the spirit of international conventions and the UN pacts (1975; 1982, 1995; 2006; 2017) on human rights and the rights of people with disabilities, educational principles are implemented according to which persons with disabilities have “dignity and the values inherent in all members of the human family and their equal and inalienable rights are recognized as the basis of freedom, justice and universal peace” [2]. In English texts of official international documents on human rights, the rights of persons with disabilities use the term “person with disabilities”, while in the legislative documents

*e-mail: n.p.dichek@gmail.com

of Ukraine is common term “disabled person”, which is a Latin analogue, or even more tolerant term – “a person (child) with disability”. Thus, it is expedient to carry out a historical retrospective of Ukraine’s achievements and failures in the field of education of young people with special educational needs, to outline the motivation of the modern transition to inclusive education, which is the purpose of this study.

2 Literature review

The state and various professional aspects of the problem of education of “special” children in Ukraine at different historical stages of social development have been studied by such specialists in the field of special pedagogy as V. Bondar and V. Zolotoverkh [4], V. Hladush [5], M. Suprun [6], O. Taranchenko [7], I. Kravchenko [8], as well as historian of education M. Yarmachenko [9] and the author of the article [10–14]. At the same time, as a holistic subject of study, a systematic determination of the experience gained in Ukraine in correctional and rehabilitation work and teaching children with visual, hearing, speech, mental disorders as well as individualization of students with primary school failure is considered for the first time.

At the same time, as a holistic subject of study, the systematic reflection of Ukraine’s experience of teaching children with mental and physical disabilities and correctional and rehabilitation work with them, the implementation of individualization of students with primary academic failure within the secondary school is carried out for the first time.

3 Results and discussion

3.1 Prerequisites for the introduction of an individualized approach to the education of “special” children in Ukraine

Until the beginning of the 1920s, there were a small number of private or charitable institutions in Ukraine, which provided care for children with hearing, vision and mental problems [9]. Enthusiastic educators provided them with basic knowledge and taught them certain available craft skills. Such single institutions operated on an initiative basis [6, 9]. Only in the 1920s, with the attempt to build a social state in Ukraine (historically more precisely – the Ukrainian SSR), for the first time in the history of education the introduction of systematic measures for the care and education of children with mental and physical disabilities began on a national scale. A balanced differentiation of children was initiated, taking into account the physiological and age peculiarities of their body formation and learning abilities. Individualization of education and upbringing of children at this time became widespread in the form of psychologization of the educational process [15].

At the same time, it is impossible not to take into account the scientific and pedagogical prerequisites that have made it possible to implement a differentiated and

individualized approach to the education of children and youth, to the organization of their lives. The background and drivers of the implementation of such an approach at this time include the development and significant achievements of experimental pedagogy, which began in Europe and the Russian Empire in the second half of the 19th century. These include studies by V. Bekhterev, O. Lazurskyi, M. Lange, P. Lesgaft, V. Kashchenko, O. Nechaiev, M. Rumiantsev, I. Sikorskyi, as well as the results of the work of such foreign scientists as A. Binet, E. Clapared, W. Lay, E. Mayman, G. Richard, S. Hall. In their studies, the issues of determining and taking into account the individual characteristics of development (physiological, mental, sociopsychological) of a child were raised; adaptation of the learning process to the existing, genetic capabilities of the child; specifics of children with mental and physical disorders and the search for opportunities for compensatory education and training; fight against difficult upbringing. These ideas were actively spread and implemented in the Ukrainian lands of the Russian Empire. Scientific and practical development of certain educational issues was carried out mainly on the basis of personal initiative by interested teachers of Kharkiv, Kyiv, Odesa, universities, as well as the efforts of enthusiastic teachers and public figures who are not indifferent to the cultural and educational development of the people [16]. Although much was done in the study and episodic effective implementation of the results of experimental research on these issues until the early 1920s, but there was a lack of systematic and consistent approach and the connection between the individual efforts of scientists and practitioners-philanthropists [9]. And the organization and activities of educational institutions for “special” children depended entirely on the initiatives of patrons and philanthropists.

By the early 1920s in Ukraine there were no state scientific institutions that would conduct systematic, purposeful research on pedagogy [16], including special one, just as there was no network of state educational institutions for children with mental and physical disorders. Even in the Russian Empire the ideas on the need to create a state system of social assistance to children with mental and physical disorders, which would provide them with education, upbringing and treatment in special institutions, as well as a comprehensive study of such children, was repeatedly expressed by I. Sikorskyi, V. Kashchenko, G. Troshyn, A. Vladimirskyi, O. Shcherbyna, P. Melnykov, V. Vetukhov, M. Kotelnikov and others at meetings and conferences [14]. However, at that time the authorities failed to meet the needs of “special” children.

3.2 The first steps towards the humanization of “special” children education: 1920s

In 1920, one of the initiators of the renewal of the pedagogical process on a child-centered basis, Ukrainian pedologist O. Popiv in his program work “Declaration of the People’s Commissariat of Education of the USSR on social education of children” outlined the intentions of workers and peasants to change approaches to education

and upbringing. He wrote that, organizing a new “educational system of social education”, the task is to realize the pedological and pedagogical dream – to cover the whole life of each child with the right education, to finally realize the “rights of the child” [17]. In this aspect, the idea proclaimed in the mentioned document that “care should be provided to all children, including the sick and defective ones, “juvenile offenders” and whole groups of children who need a special educational approach, became fundamental [17]. The term “defective” child was common in both the Soviet and European scientific and educational space at least until the 1960s and was used to describe children with various disabilities. Similarly, the term “morally defective” child was widely used to describe offending or homeless children, but only until the 1930s. To adhere to the principle of historicism, we will use the terms that were used at a certain historical time in official materials. It should be noted that in the second half of the twentieth century, gradually, with the spread of the human-centered paradigm in social development in Europe, the use of terms that degrade or morally affect the human being was abandoned even in the scientific sphere.

It should be noted that the Code of Laws on Public Education adopted in the USSR in 1922 already approved the division of all children in the country into certain groups according to the state of their physical and psychophysical development [18]. “Normal” and “defective” children were singled out, and therefore the urgent need for education alongside educational institutions for normal (ordinary) children and educational institutions for physically, mentally and morally defective children was recognized. Responsibility for the work of such institutions was allocated to the Ministries of Education (then the PKE of the USSR) and the Ministry of Health (then the PKH of the USSR).

According to the type of anomalies in children’s development, they were differentiated into three subgroups (blind, deaf, with mental problems), and the state recognized the need to ensure “the interests of each of these groups of children” [18]. An important role was also played by the mass registration of the entire child population of the USSR initiated by the authorities, which helped to identify children in need of special living and learning conditions.

Thus, since the early 20s of the twentieth century problems of the “defective childhood” education began to be considered and solved in Ukraine at the national level as an urgent medical and pedagogical task. For this purpose, in accordance with paragraphs 255-261 of the Code of Laws on Public Education of the USSR for the first time in four major cities of Ukraine, namely in Kharkiv (then the capital of the Ukrainian SSR), in Kyiv, Odesa and Dnipropetrovsk the medical and pedagogical cabinets were created, called the MPC, aimed at: “1) conducting scientific examinations of the physical and spiritual nature of the child who enters the cabinet; 2) developing scientific and experimental issues of practice and organization of life of institutions for defective children” [18]. The tasks of the MPC also included conducting classes with the staff of the relevant institutions of social education (social edu-

cation – note) to prepare them to understand the nature of defective children and the development of “methods and manuals” [18]. The MPC activities, which lasted until the early 1930s, had a significant regional impact on the identification of “special” children, the introduction and distribution among educators of a pedological approach to their study and learning, thus contributing to the innovative, socially significant idea of individualization of education in Ukraine [10]. In the 1930s, instead of MPCs, medical and pedagogical commissions were set up at public education departments to examine children with disabilities or learning difficulties and refer them to appropriate educational institutions or treatment as needed. In the 1990s, such commissions were called psychological-medical-pedagogical consultations (PMPCs). Since 2017, in accordance with the project of introduction of inclusive education in Ukraine, a network of inclusive resource centers (IRCs) has been created, which replaced the PMPC, finally liquidated on September 1, 2018. IRCs are being built as fundamentally new institutions designed to identify special educational needs of children not on the basis of the international classification of diseases, as it was before, but on the basis of the international classification of functions of children with special needs. In addition, these centers should be more territorially accessible, because they create one center for no more than 7 thousand children living in the united territorial community (district), and no more than 12 thousand children who live in the city (the city district) [19].

IRCs are designed to ensure “the realization of the right of children with special educational needs aged 2 to 18 to receive preschool and general secondary education, including in institutions of vocational (professional) education and other educational institutions that provide general secondary education, by conducting a comprehensive psychological and pedagogical assessment of the child’s development, providing psychological and pedagogical, correctional and developmental services and providing their systematic qualified support” [19]. As of April 2019, 557 IRCs were registered in Ukraine [20].

From the legislative and instructive materials of the USSR in the mid-1920s, in particular from the operational plan of the Department of Social Education (Uprsootsvykh) of the PCE of the USSR for 1925–1926, it appears that they have a separate section “Auxiliary School”, which indicated the feasibility of formation of the auxiliary schools’ network” [21], where children with learning difficulties and mental problems were to study. Based on Western European statistical calculations, according to which children in need of auxiliary school are 3 percent, for Ukraine the number of such children was determined at that time by more than 50,000 people [21].

The document also singled out the category of children who “are between the norm and pathology and who cannot be called abnormal in the literal sense” [21], but when they get to public school, they inhibit the “normal working flow”. The authors of the document emphasized that at the end of the 19th century in Western Europe, and later in Russia, special classes at schools and separate schools for such children began to be organized, “and

in Ukraine the network of such schools has not only not developed since 1914, but also the small number of these schools that existed before the [First World] War in Kyiv and Kharkiv, disappeared by 1922” [21]. Therefore, recognizing at the state level the need for special classes in ordinary schools, “Uprosvykh considered it necessary and possible to start organizing auxiliary classes next year, and in large centers and entire schools ... for about 7,500 children” [21]. But due to lack of funding, this task was performed slow “on the local level”.

The activities of the newly created Ukrainian pedagogical and medical-pedagogical state institutions, which took care of the primary differentiation of the child population on the basis of its examination and differentiation of children depending on the state and peculiarities of development, laid the foundation for purposeful development of medical-pedagogical support of various groups of children, including special “children”. The main thing is that both in the educational environment and in society, humanistic ideas of perceiving an abnormal child not only as a person who needs care, but also as a person with his/her own individual and social needs, which can and should be socialized.

It is indisputable that the approach to the development of the education system declared in Ukraine in the 1920s was focused on the humanistic consideration of the diversity of children’s characteristics and ensuring the social interests of all categories of children. At that time, it was socially and pedagogically expedient to create special, separate educational institutions for “special” children, where they could be provided with medical and rehabilitation care, and certain knowledge in accordance with their capabilities and state of health, and some work skills, in order to socialize in the future. And although due to the material and economic hardships of the first decades the communist authorities in Ukraine failed to implement all the declared, the creation of a network of boarding schools for the maintenance and education of “special” children at that time had no alternative and was a social achievement.

3.3 To the problems of school education in Ukraine (1970–1990)

Before turning to the psychological and pedagogical ideas, which we consider as humanistic harbingers of modern ideas of inclusive education in Ukraine, i.e. the experimental experience and scientific concept of Ukrainian psychologist Yurii Zinoviiovych Hilbukh (1928–2000), let’s briefly outline the current state of school education in Ukraine (1970–1980s).

According to V. Bondar, modern Ukrainian scientist in the field of special pedagogy, at this time in Ukraine, a theoretical concept of functioning of a differentiated system of special education and training of children with mental and physical disorders of all kinds has already been developed [4]. Favorable conditions have developed for the branching of the science of defectology (special pedagogy) into such independent scientific fields as deaf pedagogy, typhlopedagogy, oligophrenic pedagogy, speech therapy, which contributed to the development of theory

and practice of teaching and educating children with intellectual, visual and hearing disorders. Defectologists have studied various aspects of the life of “special” children in collaboration with physicians, educators and psychologists. I. Kravchenko claims that there was an improvement of educational work not only in a differentiated network of special educational institutions for children with various disabilities, which was in constant development, but also institutions of preschool education of such children [8].

In the studies [4, 5, 8, 9] it is noted that in the 1970s and 1980s significant positive changes in the structure of special schools (deepening the differentiation of children according to the degree of disorders and, accordingly, diversification of correctional and rehabilitation work with them), in educational, methodological and regulatory support of their activities, in the content of students’ education. Special schools have moved to new curricula that provide “special” children with a closer connection with the life of society by increasing the amount of general knowledge and general work skills, the acquisition of practical life skills. The internal form of “special” children education remained the main form of their development and preparation for life in society.

If in the field of special education of “special” children, according to the experts, there was a general improvement in the specialized forms of their education and upbringing, then in the secondary schools at that time there was such a psychological and pedagogical problem as unsuccessful students, i.e. children who have no obvious psychophysical defects, but poorly mastered the curriculum [22]. In this context, it should be mentioned that since 1936 (and in fact since the early 1930s, when the authorities began official criticism of pedologists) pedological (or psychological-pedagogical) study of students in Ukraine, which was widely practiced in the 1920s years, stopped. With the official defeat of pedology as a scientific field and the persecution of its followers (in Ukraine they were representatives of Kharkiv Scientific School) issues of school failure, as well as issues of personality psychology, were almost not developed [11, 14].

Only in the 1960s did educators and psychologists begin to address the problem of failing students [22]. The first solution among Ukrainian pedagogues was made by the outstanding teacher-humanist V. Sukhomlynskyi, who on an intuitive and experiential basis in the conditions of a rural school created an innovative educational system for the development of preschool and primary school children, including those with learning difficulties (“difficult” or “stupid children”). He considered it unacceptable for a group of children to exist at school, “who would feel incompetent and incapable of anything”, because he saw their bitterness of intellectual disability not only as a moral trauma but also as a direct cause of juvenile delinquency.

Working with such children, V. Sukhomlynskyi began to gather them every night (!) for several years (!) In the Fairy Tales Room created on his initiative and with the participation of the children themselves, where they listened to and composed fairy tales. “It was the work of children who came to school foolish and would remain unhappy for life, if not for this special work that improved their

brains”, V. Sukhomlynskyi wrote [23]. He called the poetic work of the students “a subtle, refined, tender school of emotional life”, which “creates tender sensitive parts in the child’s brain”, which contributes to the personal abilities’ disclosure. Based on the results of his pedagogical observations, he argued that “the joy of intellectual success . . . is the red thread of the whole emotional life of the student” [23], and therefore closely linked the development of cognitive abilities of students with the development of their emotional sphere: “The brain, which you managed to influence with a magical poetic word, acquires the ability to remember” [23].

Teacher’s advice on the development of “difficult” children thinking by means of poetic words, by developing their interests, encouraging learning through the use of accessible, emotionally colored tasks, creating an atmosphere of positive emotions and tolerance for such special children, active compassion and dialogue with them in the process of purposeful pedagogical “treatment” remain relevant, and therefore in demand in modern inclusive education [14, 22].

Among the scientists, representatives of the scientific and psychological community, Yu. Hilbukh was one of the first in Ukraine to address the problem of school failure. And it was he who contributed to the renewal in the mid-1970s in the “scientific rights” of psychodiagnostics (after a long ban that began after 1936) as an effective tool for studying the child [24]. Today he is considered one of the founders of psychodiagnostics in modern Ukraine [25].

3.4 Yu. Hilbukh’s contribution to the humanization of school education in Ukraine

In the 1980s and 1990s Yu. Hilbukh, one of the few scientists, dealt with the problem of schoolchildren’s failure. His creative achievements are now rather forgotten than known. Although he and the staff of the Research Institute of Psychology of the USSR (now G.S. Kostiuk Institute of Psychology of the National Academy of Pedagogical Sciences of Ukraine, hereinafter – the Institute) obtained experimental results of researching the student’s personality, learning opportunities and ways of psychological and pedagogical assistance to individual students, became a milestone in the development of Ukrainian pedagogical psychology. Isolated publications about him belong mainly to his former like-minded colleagues [25], [22].

The first step in the return of psychodiagnostics to Ukrainian psychological practice is associated with the opening in 1975 at the Institute of Psychodiagnostics Laboratory under the leadership of Yu. Hilbukh. The scientific unit investigated methodological, theoretical and practical problems related to the creation of new tests, adaptation of known traditional methods, diagnosis of different populations of children and adults, as well as the introduction of psychodiagnostics in the practice of schools [26].

In the late 1970s, Yu. Hilbukh and his colleagues were the first in Ukraine to experiment with the introduction of so-called equalization classes at primary school in order to overcome school failure. Some aspects of this experiment, particularly in schools in Donetsk region (Donetsk,

Horlivka, Mariupol), were mentioned by one of its participants, Yu. Hilbukh’s colleague O. Penkova: “We selected students for equalization classes and obviously saw the whole tragedy of these children, who needed only more time to master the material, and they were sent to special boarding schools. As a result children and parents suffered. We observed these students during the school year, made student assessments and made corrections. It was a necessary and interesting work, that united us” [25].

However, in the early 1980’s, according to psychologist L. Kondratenko, the laboratory was closed. However, the publications [27, 28] show that Yu. Hilbukh continued to develop the problem of student failure in the framework of his doctoral study “Method of psychological tests and ways to improve it”, which he successfully defended in 1987. He substantiated and experimentally confirmed the provisions related to theoretical and applied issues of school and professional psychodiagnostics. The scientist interpreted it not only as a tool for determining the psychological diagnosis of the child’s personality, i.e. as an aspect of cognition of his mental personality, but also as “a tool for its psychological correction (if necessary, the formation of certain mental qualities) or ensuring its increased development” [26]. In general, the modern system of teaching and mental education of children, the scientist considered as a fairly spontaneous formation, within which has not yet developed a deep knowledge of the cognitive capabilities of the individual and special methods of implementing these capabilities in the educational process [26].

The concept of differentiated learning was based on the idea that the decisive factor in the child’s learning and mental development is played by the time factor and proved the scientific hypothesis that primary school failure is rooted in the child’s insufficient readiness for learning. According to the survey, in the preschool age such children experienced certain adverse circumstances that artificially delayed their development . It should be noted that the circumstances in the scientist’s concept did not play a significant role (pregnant mother’s disease, child’s minimal brain dysfunction, his/her own severe illness in preschool, poor developmental conditions, slow mental functions), the psychologist was interested only in the current state of the child and ways to correct it.

In 1989, the work of the unit called “Laboratory of Psychodiagnostics and Psychology of Differentiated Learning” at the Institute was resumed. Yu. Hilbukh, a well-known psychologist, Doctor of Psychological Sciences, Professor, was again appointed the Head of the Psychodiagnostics Laboratory. According to the scientist, the aim of the renewed scientific unit, was “the purification of the idea of differentiation of students by certain types of classes from vulgar distortions, on the one hand, and stereotypical, one-sidedly negative approaches to it, on the other hand”, and also “introduction into school practice of the laboratory-developed psychological and pedagogical system of differentiation of the educational process in the secondary school”. It should be noted that the laboratory staff also contributed to the justification of the need to in-

roduce the position of school psychologists in Ukrainian schools, which was implemented in 1991–1994 [14].

Source analysis suggests that even before the official resumption of the department, since 1987 the so-called problem group for the diagnosis of mental development of six-year-old children, consisting of scientists from the Institute led by Yu. Hilbukh, began an experiment to differentiate learning in the primary level. 7 urban and 3 rural schools took part in the experiment [24]. The following year, the number of experimental institutions increased to 70, and since 1989 the experiment began in several schools in Belarus [29], Kazakhstan, Russia [30]. According to Yu. Hilbukh, in the 1991–1992 academic year, 400 schools took part in his experiment [30].

Scientists realized in practice the idea of introducing a system of classes at primary school, consisting of 3 types, and provided for differentiated acquisition of the first classes based on the results of the application of a set of portable test methods developed or adapted in the laboratory of differentiated learning. “Depending on the current level of development of children’s abilities and in coordination with the parents, children were included in one of the three types of forms”, Yu. Hilbukh wrote [24].

Differentiation was performed on a psychodiagnostic basis. The first type of classes, selected by the scientists, usually included children whose mental development corresponds to the age norm. According to the researchers, such children make up about 65 percent of the total [24].

The second type consisted of accelerated learning classes for children with advanced mental development. Training took place according to the formula “four years for three” for the six-year-old students and “three years for two” for seven-year-old students and according to the “compact programs”. To ensure the further mental development of such children, they were about 14–15% [29]; 15–18% [31]; 15% [30]; 15–20% [32] various forms of creative and independent work, competitions, and distribution and cooperative tasks are widely used [32].

Yu. Hilbukh substantiates the thesis that the classes of accelerated or in-depth learning create “favorable preconditions for the gifted child individuality. This is a real way to increase the intellectual potential of society”, which has long been realized abroad [29]. The scientist argued that after graduating from elementary school, students of this class should be able to continue to study in-depth educational programs in accordance with personal inclinations and abilities. Such education in the 5th–10th grades was to be differentiated through optional classes, as well as through the creation of a set of subject cycles, such as physics and mathematics, chemistry and biology, science and humanities (linguistics, literature, art, history), polytechnics, computer technology, technical modeling, etc.

We consider these considerations of the scientist to be a harbinger of the specialized education implementation in high school, which began in Ukraine in the 2000s. It should be noted that Yu. Hilbukh provided for the advanced training of schoolchildren from the 5th grade, but for those students who received primary education in the classes of accelerated learning. Obviously, his approach is

deeper in the sense of differentiation and is still awaiting implementation.

According to Yu. Hilbukh’s conceptual approach, the content of educational and subject cycles was to be outlined in special programs, which would be a supplement to the current curriculum and programs. In collaboration with his colleagues, the scientist implemented the idea in a number of curricula for grades 5–10 (at that time there was a 10-year secondary school – note) for the schools with Ukrainian and Russian languages of instruction (issues 4–9 of series “Educational process in differentiated classes”, 1992–1993), and psychological and pedagogical justification of ways to implement differentiated education was set out in publications for teachers [33].

Recognizing differentiated learning as the main prerequisite for the implementation of the key principle of pedagogy – the principle of individual approach to students, i.e. taking into account their individual psychological characteristics in the educational process [32], Yu. Hilbukh in the early 1990s argued that not only secondary and high school students, but also primary school students should be involved in the process: “Today, in some regions of Ukraine, several hundred of “differentiated” classes are opened per year. At the same time, they forget that the first school years are the foundation not only of education, but also of development of abilities. And it is unlikely that differentiation in the secondary and high school can be effective under its absence at primary school” [29]. And in primary school, the scientist noted, differentiated learning was implemented only or mainly in the form of clubs and extracurricular activities in amateur art, labor education, physical education, “intra-class differentiation”, and therefore the scientist stated: “They are trying to build differentiated learning on the basis of taking into account only the interests and inclinations of students, ignoring the existing individual differences in the development of intellectual abilities” [32].

Yu. Hilbukh constantly argued that “intelligence and abilities can develop only when the children are constantly straining their abilities, working at the limit of possibilities ... no problem when something fails, the main thing – that the child was aimed at achieving new heights in learning” [29]. To help senior students master the rational methods of educational and work activities and to develop their mental abilities, the scientist wrote a book “How to learn and work effectively. Scientific management for high school students” (1993), where he presented psychological and pedagogical recommendations for the development of observation and attention, learning scientific terms, solving problems, training spatial attention and “rationalization of memory” etc. [34].

Finally, the third type of primary school according to the Yu. Hilbukh’s plan consisted of increased individual attention classes (IIAC), which included children poorly prepared for school, “pedagogically neglected” [24], or with minor deviations in mental development. Such children quantitatively make about 15–20% of the total number of entrants; 15–18% [32].

The peculiarities of the IIAC work included:

- maximum number per class – 16–18 students, compared to the generally acceptable 30–35 students,
- high requirements for the professionalism of the teacher,
- implementation of training in IIAC on the basis of correctional methods developed in the laboratory of psychodiagnostics (authors – Yu. Hilbukh, L. Kondratenko, L. Korobko) [29],
- giving a teacher the right to follow the curriculum of a regular four-year (or three-year) primary school, to change the educational process in such a way as to contribute as much as possible to the development and educational success of students.

Great importance in the work of KPIU was given to the organization of teacher-student interaction in class and in extracurricular time, the formation of a friendly class team, a friendly climate.

Yu. Hilbukh attributed “slow students” to the children with insufficient preparation for school [22]. As the participant of experiments, the employee of psychodiagnostics laboratory L. Kondratenko explains, that in course of check of children-entrants the scientists distinguished slow and unhurried children. Children with different levels of readiness for school and learning abilities were considered unhurried. Their unhurried manner in performing educational tasks was determined by the inert type of higher nervous activity. Such children work at a somewhat slow pace, but the depth, accuracy and quality of knowledge is not affected [22]. Others are slow children. They are not able to acquire knowledge at the pace offered by the school, not because they think slowly, but because they make mistakes at every step, and because of these mistakes their schooling resembles a path in a labyrinth. In order to find a way through the labyrinth such children need a lot of teachers’ help and, as a result, a different teaching method, a slower pace of mastering new material. In a regular class, such a child will face the fate of a failed student, whose lag behind peers only grows and deepens every year.

It should be noted that already in 1994, specifying the method of completing differentiated classes on the basis of psychological observations and experimental results, Yu. Hilbukh came to the conclusion that it is necessary to create the fourth type of classes for children with mental retardation (MRC), which are 2–3% of the total number of preschoolers [32]. Based on this, the laboratory addressed the Ministry of Education and Science of Ukraine with a proposal to open such types of classes in the secondary schools [32]. It was carried out in the cities of Rivne and Zaporizhia. The MRC opened there at usual schools was for 10–12 pupils who were taught by the teacher with defectological education [32]. This example shows the steps taken to implement the ideas of inclusive education in Ukraine in the early 1990s.

Conducting the experiment, scientists set the following tasks:

- ensuring constant confidence of children in their learning ability, enjoyment of intellectual stress in the learning process,

- creating comfortable living conditions for children and taking measures to strengthen their health,
- promoting the general development of the individual; implementation of correction and training for the development of cognitive abilities [22].

The first and second tasks were implemented in the process of organizing educational work, the third combined the influence of intellectual background with correction, and the fourth was solved through the use of developmental tasks, individual and group classes of psychologist with children, game trainings and thinking development course. It began at the second year of study [22].

According to L. Kondratenko, even during an experiment with equalization classes in the late 1970s, scientists recorded a psychological trap that children of all types of classes fell into, aimed at correcting the already found failure. Studying in such classes formed from children losers who already “felt the bitter taste of school failure and developed certain methods of psychological protection, the main of which was the internal “habituation” to low self-esteem and inability to learn the program” [22]. After some time of constant humiliation, such a child learned poorly not only because he/she could not, but also because he/she no longer wanted to learn, not expecting anything from the learning process, except new and new annoyances. It was these observations that prompted researchers to propose a further way in the 1980s and 1990s that they believed avoided the traumatic experience of school failure: children were singled out not for failure but for readiness for school.

We consider the thesis to be a significant conclusion of the experimental work formulated by L. Kondratenko: “While equalization classes acted as groups of specially organized correctional education for children (equalization classes) who did not cope with the first grade program, they, even despite the will of experimental training organizers, turned into oases of trouble, reservations for “uncomfortable” children” [22]. Therefore, starting the experiment in the late 1980s according to the concept of Yu. Hilbukh, the laboratory developed new approaches to differentiation, based on the results of pre-school testing and for the first time implemented a purely psychological approach to the division of children into different classes, based not on the level of their academic knowledge, but the level of cognitive abilities formation.

The typology of “unsuccessful” children proposed by the scientists of the laboratory was also original, which was not based on the usual “deficiency” approach, which determines the lack of a certain ability formation, responsible for certain school abilities of children. Instead, the typology was based on the “effective approach”, which basis was the effectiveness of educational activities [22]. Therefore, “poorly prepared” students were divided into 3 main groups: children with insufficiently formed motives for learning (students who do not work enough); children with low educational efficiency; children with a combination of low motivation and low efficiency of educational activities. However, according to L. Kondratenko, this typology from the beginning had a certain contradic-

tion with the declared pre-school approach to identifying school failure of children, as the effectiveness of educational activities can be determined only by the results of these activities [22].

Experiments have also shown that a significant pedagogical problem was the professional unpreparedness of teachers to work in both accelerated classes and IIAC. It was difficult to develop methods of teaching individual subjects in different differentiated classes, because most teachers were not psychologically ready to change their own approaches to learning, to use fundamentally different teaching methods in different classes of the same parallel [22]. To facilitate their work, the staff of the laboratory developed manuals and recommendations, conducted training courses for teachers to study at IIAC. Scientists also constantly monitored the work of experimental classes [32].

The references show that in 1989–1994 under the leadership of Yu. Hilbukh scientists of the psychodiagnostics laboratory carried out large-scale experiments to introduce differentiated education of children in primary school in Ukraine, Russia, Belarus and Moldova [25]. Materials were found, according to which, for example, in Tiraspol, the experiment of differentiation of first grades and organization of education in them continued until the end of the 1990s [35]. In particular, in the work of the secondary school No. 8, under the scientific guidance of the psychodiagnostics laboratory, special programs and educational complexes were developed, according to which teachers and school psychologists could work with certain categories of children. The experimental program “Development of the child’s personality taking into account his real capabilities on the basis of psychodiagnostics and differentiated learning” was implemented. And from 1993 to 1998 they launched an experiment, and teachers and administration passed through the “psychological and pedagogical school of Yu. Z. Hilbukh” [35]. Describing the course of this experiment, the laboratory scientist L. Manylova noted that it was based on humanistic principles of “timely identification and comprehensive cultivation of students’ abilities” and aimed at introducing “differentiated education and comprehensive individualization of the educational process” [36].

From the report of the psychodiagnostics laboratory of the Research Institute of Psychology of Ukraine for 1991 it is possible to learn that 394 schools in Ukraine and 112 schools from other states of the former USSR took part in the experiment at that time. The object of in-depth research were the following Ukrainian schools: Secondary schools No. 52, 96, 157, 159, 178, 251, 254, 286, 288 in Kyiv, Secondary schools No. 50 and 91 in Donetsk, Secondary schools No. 14, 19, 54, 65 in Horlivka, Donetsk region, Secondary school No. 150 in Dnipropetrovsk, Secondary school No. 6 in Novomoskovsk, Secondary school No. 103 in Kryvyi Rih, Dnipropetrovsk region, Secondary school No. 149 in Kharkiv, Secondary schools No. 12, 23 in Rivne, Secondary school No. 17 in Vinnytsia, Golynska Secondary School, Ivano-Frankivsk Region, Secondary School No. 7 in Lebedyn, Sumy Region, Secondary School No. 20 in Luhansk [37].

The report also states that the psychological and pedagogical system of differentiation of students developed in the laboratory in accordance with the current level of their mental abilities is “an effective means of ensuring the harmonious comprehensive development of the individuality of students and student groups” [37]. Psychologists stated “profound structural changes in the cognitive activity and moral sphere of students”. The experiment showed that in both areas students have large reserves that cannot be used in the traditional organization of educational process. The control assessments of differentiated classes students, conducted in a number of schools in Donetsk, Dnipropetrovsk, Rivne and Kharkiv regions, proved the significant advantages of the described system.

At the same time, there were still problematic aspects that were clarified during the research. Although the level of knowledge of IIAC graduates (according to the results of tests of the Ministry of Education and other audit commissions) was sufficient for successful secondary school education, in the following classes only a few of IIAC children remained at the same level of academic achievement at the end of their studies, as they had at primary school. In general, such children became classic low-performing students, who constantly balanced between grades “2” and “4” [22]. L. Kondratenko describes the following strange situation that arose during the experiment: the aim of the IIAC was to prevent failure, which was formed on the basis of unpreparedness for schooling. This goal seems to have been achieved “and at the time of passing to primary school there seemed to be no real factors for the secondary failure, which is formed on the basis of lack of knowledge, skills and abilities necessary for further learning” [22]. However, in reality the failure still occurred. Faced with the first difficulties in learning in 5th–7th grades, the IIAC graduates showed helplessness, inability to solve problems on their own, and “showed all the signs of a deficient personality with clear manifestations of personal victimhood”. The scientist writes that the academic failure was sometimes preceded by manifestations of general failure: low self-esteem, inferiority, deficiency, insecurity, lack of intellectual effort, and, as a result there were gaps in knowledge.

L. Kondratenko admits that: “The results of IIAC’s activity showed that the work aimed only at developing the learning abilities of students with insufficient readiness for school gave only a temporary effect, as it did not provide a permanent positive polarity of the whole system of functioning of a child as an individual and as a personality” [22].

Other psychologists, S. Goncharenko and L. Manylova, also wrote about the difficulties faced by the experiment participants [36]. They stressed that the effectiveness of IIAC students depends on external factors (errors in the staffing of such classes, the inability to provide scientific support by psychologists of each IIAC, project funding), and the specifics of the personality of IIAC children, most of whom were psychophysiologically immature and its complicated both learning and communication [5].

Despite the difficulties and problems of introducing differentiation at primary school, Yu. Hilbukh defended the idea of the expediency of differentiating students by their abilities, but subject to the principle of democracy through the actual provision of all categories of children “basically one amount of knowledge with high achievement”. Establishing the growing level of social stratification in Ukrainian society, typical of the 1990s, another Ukrainian psychologist H. Ball, wrote that the Yu. Hilbukh’s classes of increased individual attention really provide an individual approach to each child, promote individualization, which defined “fundamental characteristics of free personality development strategies” [38].

We consider his book “Temperament and cognitive abilities of a student: psychology, diagnostics, pedagogy” (1992; revised and corrected edition in Russian, 1993) to be a kind of generalization of scientific views and experimental research of the scientist connected with practical realization of the personal approach to the child-student, which reveals his approach to solving the problem of rapid diagnosis of primary activities of students: experimented achievement tests, recommendations for the diagnostics of oral responses of students in the process of testing their knowledge, diagnosis of the zone of proximal development and level of actual development of the child, his/her educational activities, means of correction of inattention, development of memory, observation, imagination, i.e. effective tools for “full realization of cognitive abilities that the student has at this time, ... and creating the most favorable conditions for further development of these abilities” [33], as well as provisions for the construction of “long-term individual characteristics as guidelines in the “current interpretation of student learning behavior”.

From an interview with a leading researcher of the modern department of psychodiagnostics and psychological information of the Institute of Psychology of the National Academy of Pedagogical Sciences of Ukraine, Doctor of Psychology L. Kondratenko, it was found that after Yu. Hilbukh left Ukraine in 1995, the experiment was collapsed. Interview with L. Kondratenko were conducted by the author of the article in August 2017 and in October 2018 in Kyiv.

In 1996, after Yu. Hilbukh’s departure, his book “School Class: How to Know and Educate its Soul” was published, co-authored by O. Kyrychuk. It reveals to the teachers the understanding of the class as a kind of small group, as an organism, i.e. “holistic mental individuality” [39]), which requires study and characterization, because the class becomes a center for the child, where it is socialized. Therefore, the teacher must learn to trace and diagnose the processes in such a small group, to determine the patterns of its functioning and development. The content of the book was aimed at helping the teacher, and its analysis, in our opinion, is currently relevant.

In 1980–1990 another Ukrainian psychologist A. Furman worked on the issue of psychodiagnostics of intelligence in the system of education differentiation. He participated in the development of programs for the 5th grade with the advanced learning of basic subjects (CAL) [40], studied the activities of classes with accelerated learning

(ALC) and substantiated the conclusion that 9-year-old students who graduated from ALC, are able to learn not only one, but all subjects advanced and its normal for them [40], as their mind is “programmed to a theoretical (conceptual) level of cognition”, another level of knowledge acquisition is superficial to them, such that “does not fully develop their mental and volitional qualities”. Another current conclusion of the scientist was the statement about the extremely important role of the first teacher in the mutual adaptation of students and teachers in the 5th class, because the first teacher is the link that connects learning for children “before” and “after” [40], so it is advisable that the first teacher continues to teach at least one subject in the 5th grade.

Based on his own experience of using the known intelligence tests, in his book “Psychodiagnostics of intelligence in the system of learning differentiation” A. Furman made “almost the first in the history of domestic psychological science and school practice” attempt to allow teachers to test themselves in “psychological diagnosis level and features of intellectual development of students and approach the scientifically sound implementation of a system of differentiated or individualized learning” [40]. He introduced the technology of using tests of mental development of students, who are the most accessible to teachers. Along with a description of the technique of holistic test examination of students, the scientist argued the possibility of using tests to create different types of classes (lyceum, gymnasium, general education, increased individual attention) and differentiated learning groups to teach gifted and retarded students. The test methods, technologies of conducting and processing test examinations, as well as interpretation of their results, recommendations for differentiation of the educational process played an important role in spreading the psychological component of education humanization in the first years of Ukraine’s independence.

4 Conclusions

As a result of Ukraine’s choice of state policy, focused primarily on the humanization of life in the country, educational policy was aimed at creating and providing conditions for the development of the individual from the first years of sovereignty. The search for personality-oriented learning strategies, started by V. Sukhomlynskyi in 1950–1960, was continued by innovative teachers in 1970–1980 [41], as well as the research of Ukrainian scientists in the field of students’ learning individualization, which contributed to the intensification, were actualized. This research in the 1990s introduced the differentiation and individualization of school education, including with the use of psychological and pedagogical methods, psychological diagnostics and the development of corrective psychological and pedagogical strategies of personal development.

Yu. Hilbukh belongs to the bunch of Ukrainian scientists, whose achievements in the theoretical and applied dimensions provided individualization of schooling, contributed to the introduction of psychodiagnostics into school practice, and rooted in the minds of educators the

need for psychological knowledge of compulsory educational tools. He and his colleagues from the Laboratory of Education Differentiation of the Institute of Psychology of Ukraine substantiated and argued the need to introduce psychological support for students in Ukrainian schools, which led to the introduction of school psychologists (early 1990s), the creation of a separate Psychological Service of Ukraine as well as the personality-oriented paradigm in Ukrainian education, one of the modern manifestations of which is inclusive education.

For the first time, the development of the experience of care and education of children with psychophysical problems in Ukraine in accordance with the state paradigm of their separate education is systematically covered in the problem-chronological dimension. At the same time, the research of Ukrainian scientists on the individualization of education of students with primary academic failure at primary school is reflected, which are characterized as certain predictors of the movement towards inclusive education (table 1).

The development of inclusive education in Ukraine in accordance with the concept of the New Ukrainian School (2017) manifests not only the modernization of the state's humanitarian policy, but also a change in the pedagogical paradigm. The main core of change is the implementation of humanistic child-centeredness of all types and forms of education. The principles of inclusive education are consistent with global humanistic principles for the education of children with special needs.

At the same time, we should not forget that the implementation of inclusive education in Ukraine has become possible due to the previously created scientific and experimental base and the long-term experience of educators and socialization of children with special needs. These achievements of Ukrainian pedagogy, firstly, became the basis of modern educational modernization in the field of education, and secondly, they remain a source of ideas for the future.

References

- [1] Ministry of Education and Science of Ukraine, *Inclusive learning*, <https://mon.gov.ua/ua/tag/inklyuzivne-navchannya>
- [2] *Convention on the rights of persons with disabilities* (2008), https://zakon.rada.gov.ua/laws/show/995_g71
- [3] *Law of Ukraine "on the fundamentals of social protection of persons with disabilities in Ukraine"* (1991), <https://zakon.rada.gov.ua/laws/show/875-12#Text>
- [4] V. Bondar, V. Zolotoverkh, *Defektologia* **1**, 2 (2004)
- [5] V. Hladush, Collection of scientific works of Kamianets-Podilskyi National Ivan Ohienko University: Socio-pedagogical series **19**, 59 (2006)
- [6] M. Suprun, *Korektsiine navchannia uchniv dopomizhnykh zakladiv osvity: vytoky, stanovlennia ta rozvytok (druha polovyna XIX – persha polovyna XX st.) (Correctional education of students of auxiliary educational institutions: origins, formation and development (second half of the XIX - first half of the XX century))* (Vydavets Palyvoda A.V., Kyiv, 2005)
- [7] O. Taranchenko, *Defektologia* **3**, 47 (2006)
- [8] I. Kravchenko, *Pedagogical sciences: Theory, history, innovative technologies* **1**, 364 (2016)
- [9] M. Yarmachenko, *Istoriia surdopedahohiky (History of deaf pedagogy)* (Vyshcha shkola, Kyiv, 1975)
- [10] N.P. Dichek, in *Osvitni reformy: misiia, diisnist, refleksiiia (Educational reforms: Mission, reality, reflection)*, edited by V. Kremin, T. Levovytskyi, V. Ohneviiu'k, S. Sysoieva (EDELVEIS, Kyiv, 2013), pp. 429–454
- [11] N.P. Dichek, *Osoblyva dytyna: navchannia i vykhovannia* **2**, 62 (2014)
- [12] N.P. Dichek, *Osoblyva dytyna: navchannia i vykhovannia* **3**, 47 (2017)
- [13] O.V. Sukhomlynska, N.P. Dichek, L.D. Berezivska, N.M. Hupan, L.V. Pyrozhenko, in *Narysy z istorii rozvytku dyferentsiiovanoho pidkhodu do orhanizatsii navchannia v ukrainskii shkoli (kinets 30-kh – 80-ti rr. XX st.) (Essays on the history of the development of a differentiated approach to the organization of education in the Ukrainian school (late 30's - 80's of the twentieth century))*, edited by N.P. Dichek (Pedahohichna dumka, Kyiv, 2017), p. 768
- [14] N.P. Dichek, *Education: Modern Discourses* **1** (2018)
- [15] V.A. Lukianova, Ph.D. thesis, H.S. Skovoroda Kharkiv National Pedagogical University, Kharkiv (2002)
- [16] O.I. Popiv, *Shliakh osvity* **8-9**, 129 (1929)
- [17] O.I. Popiv, in *Malovidomi pershodzherela ukrainskoi pedahohiky (druhoi polovyny XIX -XX st.) (Little-known primary sources of Ukrainian pedagogy (second half of the XIX-XX centuries))* (Naukovyi svit, Kyiv, 2003), pp. 237–240
- [18] *Kodeks zakonov o narodnom prosveshcheny USSR (Code of laws on public education of the Ukrainian SSR)* (Izdanie Narodnoho komissariata prosveshcheniia USSR, Kharkov, 1922)
- [19] A. Treityak, *Inclusive education in Ukraine: Statistics* (2017), <http://rcpio.ippo.kubg.edu.ua/?p=2953>
- [20] *Inclusive resource center* (2020), <https://ircenter.gov.ua/>
- [21] O. plan for 1925-1926, in *Zahalne navchannia v USSR: zakonodavchi ta instruktivni materialy (General education in the USSR: Legislative and instructional materials)* (DVU, Kharkiv, 1926), Vol. 1, pp. 34–48
- [22] L.O. Kondratenko, *Psykhohiia pervynnoi shkilnoi neuspishnosti (Psychology of primary school failure)* (Desna Polihraf, Chernihiv, 2017)
- [23] V.O. Sukhomlynskyi, in *Oberezhno: dytyna! V. O. Sukhomlynskyi pro vazhkykh ditei (Safely: Child! V.O.Sukhomlynsky about important children)* (Luhanskyi natsionalnyi universytet imeni Tarasa

Table 1. Generalized reflection of the development of approaches to the problems of children with special needs in Ukraine

Type of paradigm	Years	Purpose	Responsible for implementation
Isolation of children with psychophysical features from the child population, their differentiation by types of disorders	1920–1930	For the first time in the history of national education the organization and system of guardianship, training and possible rehabilitation of children with special needs in the form of creation of the state various profile boarding specialized institutions is carried out.	State
Deepening the study and differentiation of children with special needs and accordingly expanding the network of specialized educational and correctional institutions	1940–1990	Development of scientific research in Ukraine in the field of studying the features and pathologies of child development, development of theory and methods of teaching, education and socialization of such children.	State
Within the same paradigm of the origin of ideas of inclusive-individualized approach	1980–1990	Introduction of the experiment on differentiation of children entering the first grades of secondary schools on the basis of their psychological testing in order to determine which program – typical or individualized (for children with advanced mental development, and children with learning difficulties who needed more pedagogical attention) it is more expedient for them to study.	State
The new paradigm is the paradigm of inclusive education	Since 2017	Introduction in Ukraine of the practice of including children with special needs in the educational process of ordinary secondary schools in accordance with modern international principles of inclusive education and the gradual reduction of the network of boarding (isolated) forms of their education and socialization.	State together with private and public parents organizations

- Shevchenka, Luhansk, 2008), pp. 240–263
- [24] Y.Z. Hilbukh, *Radianska shkola* **11**, 29 (1989)
- [25] Y.P. Vereshchak, *Praktychna psykholohiia i sotsialna robota* **7**, 73 (2013)
- [26] Y.Z. Hilbukh, *Rozumovo obdarovana dytyna: Psykholohiia, diahnozyka, pedahohika (Mentally gifted child: Psychology, diagnosis, pedagogy)* (Vipol, Kyiv, 1993)
- [27] Y.Z. Hilbukh, *Nauchnyi otchet za 1983 hod po teme: Psikhologicheskie osobennosti individualizatsyi uchebno-vospitatelnoho protsessa v klassakh vyravnivania (scientific report for 1983 on the topic: Psychological features of the individualization of the educational process in leveling classes)* (1983)
- [28] Yu.Z. Hilbukh, *Psikhologo-pedahohicheskiie osnovy individualnoho podkhoda k slabopodhotovlennym uchenikam (Psychological and pedagogical foundations of an individual approach to poorly prepared students)* (Radianska shkola, Kyiv, 1985)
- [29] Y. Hilbukh, L. Kondratenko, S. Korobko, *Narodnoe obrazovaniie* **4**, 15 (1991)
- [30] Y. Hilbukh, S. Korobko, *Psykholoho-pedahohichni osnovy dyferentsiatsii navchannia v pochatkovii lantsi zahalnoosvitnoi shkoly (Psychological and pedagogical bases of differentiation of education in the primary level of secondary school)* (Kyiv, 1990)
- [31] Y. Hilbukh, L. Kondratenko, S. Korobko, *Narodnoe obrazovaniie* **4**, 15 (1991)
- [32] Y. Hilbukh, *Differentsyatsiia v nachalnom zvene (Initial differentiation)*, 4th edn. (Radianska shkola, Kyiv, 1994)
- [33] Y. Hilbukh, *Temperament i piznavalni zdibnosti shkoliara: psykholohiia, diahnozyka, pedahohika (Temperament and cognitive abilities of the student: Psychology, diagnostics, pedagogy)* (Institute of Psychology, Academy of Pedagogical Sciences of Ukraine, Kyiv, 1993)
- [34] Y. Hilbukh, *Yak uchytytsia i pratsiuvaty efektyvno. NOP dlia uchniv himnazii litseiv (How to learn and work effectively. Scientific management for high school students)* (Vipol, Kyiv, 1993)
- [35] M. Makarova, *Pedahohicheskii vestnik Pridnestrovia* **2**, 7 (1998)
- [36] L.N. Manylova, *Pedahohicheskii vestnik Pridnestrovia* **2**, 31 (1998)
- [37] *Zvit pro ndr laboratorii shkilnoi psykhdiahnozyky ndi psykholohii ukraiiny za 1991 rik (report on the research of the laboratory of school psychodiagnostics of the research institute of psychology of ukraine for 1991)* (1998)
- [38] H. Ball, *Psykholohichni aspekty humanizatsii osvity (Psychological aspects of humanization of education)* (Kyiv-Rivne, 1996)

- [39] Yu.Z. Hilbukh and O.V. Kyrychuk, *Shkilnyi klas: yak piznavaty i vykhovuvaty yoho dushu (School class: How to know and educate his soul)* (NPTs Perspektyva, Kyiv, 1996)
- [40] A. Furman, *Psykhodiahnostyka intelektu v systemi dyferentsiatsii navchannia (Psychodiagnostics of intelligence in the system of learning differentiation)* (Osvita, Kyiv, 1993)
- [41] Y. Hilbukh, *Radianska shkola* **1**, 12 (1988)