

University of Technology Katowice



**INNOVATIVE APPROACHES TO
ENSURING THE QUALITY OF
EDUCATION, SCIENTIFIC RESEARCH
AND TECHNOLOGICAL
PROCESSES**

MONOGRAPH

Katowice 2021



Innovative Approaches to Ensuring the Quality of Education, Scientific Research and Technological Processes

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Series of monographs Faculty
of Architecture, Civil Engineering
and Applied Arts
Katowice School of Technology
Monograph 43

Publishing House of University of Technology, Katowice, 2021

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Monograph · 43

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ISBN 978 – 83 – 957298 – 6 – 7

Editorial compilation

Publishing House of University of Technology, Katowice
 43 Rolna str. 43 40-555 Katowice, Poland
 tel. 32 202 50 34, fax: 32 252 28 75

PART 3. INNOVATIONS IN MODERN EDUCATION AND SCIENCE: THEORY, METHODOLOGY, AND PRACTICE	231
3.1 THE USE OF INNOVATIVE TECHNOLOGIES IN THE TRAINING OF FUTURE PRESCHOOL EDUCATION SPECIALISTS	231
3.1.1 Historical and methodological aspects of introduction of interactive technologies in the process of training future educators/teachers of humanities in higher education institution ...	231
3.1.2 Pedagogical training as a form of preparing the future professionals of preschool education.....	244
3.1.3 Interactive technologies of training of the future educators to work with children in the conditions of the modern preschool education institution: from the experience of work	250
3.1.4 Interactive methods as a means of training of future educators for the implementation of inclusive education in ukraine	257
3.1.5 The active methods as a condition of the successful learning by the future preschool education professionals of the content of child's psychology	263
3.1.6 Using interactive technologies in teaching preschool pedagogy	269
3.1.7 The using of interactive technologies in the process of preparation the future teachers for acquaintance of preschool children with nature	275
3.1.8 Use of educational technologies in work with children of preschool and school age	281
3.1.9 Linguodidactic technology of formation in children of senior preschool age ability to compose stories according to visual models.....	288
3.1.10 Polycultural upbringing of senior preschool children in modern preschool educational institutions	296
3.1.11 Necessity for the multidisciplinary approach to the development of educational programs for the preparation of bachelors for habilitation activities	303
3.1.12 Didactic visualization as a means of forming the speech personality of a child with a speech disorder	309
3.2 DEVELOPMENT OF CREATIVE ABILITIES OF PRIMARY SCHOOL PUPILS IN THE MODERN CONTEXT	316
3.2.1 Pedagogical technologies of formation of ecological competence of the future primary school teacher	316
3.2.2 Educational robotics as a means of development of basic learning skills of younger students	323
3.2.3 Innovative technologies of pedagogy primary school partnerships	330
3.2.4 Application of national music art in modern primary school	341
3.2.5 Internationalization as a tool for preparing future teachers for primary school pupils' competent personality formation	351
3.2.6 The concept of creating intercultural space primary school in transcarpathia	358
3.2.7 Preparedness of future primary school teachers for partnership cooperation with student's parents.....	365
3.3 TRAINING SPECIALISTS IN NATURAL SCIENCES, MATHEMATICS AND TECHNOLOGY ON THE BASIS OF MODERN TEACHING TECHNOLOGIES	374
3.3.1 Preparation future teachers of physical and mathematical disciplines for professional activity in the new ukrainian school: mathematical competence problems	374
3.3.2 Stem - education and modern learning technologies.....	383
3.3.3 Formation of stem-competences of participants of the educational process in the educational institution.....	388
3.3.4 Opportunities of online resources for implementation of the concept of stem-education	398
3.3.5 Teaching theoretical physics of future teachers of physics through the prism of a personally-oriented approach	404

27. Сухомлинська О.В. Концепція громадянського виховання особистості в умовах розвитку української державності. *Дошкільне виховання*. 2003. № 2. С. 3 – 8.
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3.1.11 Necessity for the multidisciplinary approach to the development of educational programs for the preparation of bachelors for habilitation activities

Formulation of the problem. The state and society have an extremely important task to act as a guarantor of social protection of children with special needs, to undertake to provide them with conditions for normal life, education and development of talents, vocational training, adaptation to the social environment, i.e. for their habilitation. The importance of the early period of formation of the child's personality, the role of the social environment, the influence of the experience of relationships with loved ones is emphasized in domestic and foreign psychological and pedagogical researches (L. Vyhotskyi [3], etc.). The authors emphasize the necessity of studying and implementation of family support and parental support programs in the early years of a child's life. Families who have children with developmental disabilities need special position.

In recent years, the number of young and pre-school children with symptoms or diagnoses that indicate developmental disorders has increased in Ukraine, as well as around the world. The most common are autism spectrum disorders (ASD), cerebral palsy of children (CPC), communication disorders (speech, pronunciation, speech fluctuations, social communication disorders), attention deficit and hyperactivity disorder (hereinafter – ADHD). The English-language abbreviation ADHD (Attention Deficit / Hyperactivity Disorder), which was proposed by the American Psychiatric Association (DSM-IV) classification, as well as the International Classification of Diseases ICD-10 (ICD-10), proposed by the World Health Organization, is generally accepted. [9; 11]. This leads to the fact that modern pre-schoolers have difficulties in socialization, communication, learning, psychophysical development. This is a significant obstacle to the formation of a harmonious healthy personality.

Symptoms of ADHD are usually observed in children from 3-4 years of age, and always - up to 7 years. Problems are especially acute in children aged 4-6, when a pre-schooler becomes more independent of adults, gets new responsibilities, prepares for the transition to the new stage of his or her life – schooling. It is during this period that the most problems with memory, attention, thinking, speech, imagination of the child appear. Higher mental functions are the foundation for the accumulation of all life experience, and if this foundation is not strong, then all further activities of the pre-schooler, and then the student, will have certain problems. This can form in the child the inner idea of himself or herself as a failed and weak personality, become the stable belief for the whole life.

In modern psychology and pedagogy, children with behavioral problems are paid more attention, looking for the true causes of restlessness, inattention, impulsiveness and so on. In 2004, the International Association of Child and Adolescent Psychiatry and Adjacent Professions (IACAPAP) recognized attention deficit and hyperactivity disorder as a No. 1 problem in the mental and psychological health of children and adolescents. Every year the number of children suffering from this syndrome increases [4; 6; 10].

Analysis of the prevalence of ADHD suggests that 60% of adults who were diagnosed with childhood disorders (or were diagnosed as adults) have some problems with the syndrome [8]. Most researchers are inclined to think that ADHD is found all over the world and in all cultures. Polish

authors note that the manifestations of hyperactivity syndrome continue to persist in 70% of adolescents. According to other researchers, this problem occurs in 2% of the adult population. In addition, it is much more difficult to recognize a hyperkinetic disorder in an adult than in a child. The frequency of manifestations of ADHD in children of primary school age is 3-10% (there are data of even 28% [2, p. 356]). According to published data, in the United States hyperactive children are 4-20%, in the UK – 1-3%, in Italy – 3-10%, in China – 1-13%, in Australia – 7-10%, in Ukraine – 12 %. The manifestation of the syndrome is more pronounced in children in the age range of 6-8 years. According to world data, only 1/5 of the total number of hyperactive children comes to the attention of specialists [8; 11]. The increase in the number of detected cases of children diagnosed with ADHD is associated by many authors with the growing awareness of this problem.

According to the official data of the Ukrainian Research Institute of Social and Forensic Psychiatry and Addiction of the Ministry of Health of Ukraine, ADHD is discovered in 12.2% of schoolchildren, although there are other studies indicating 28% of the child population in different countries (according to M. Bezrikykh [2]). This indicator is so wide because there are no specific methods for clear and reliable detection of this syndrome. According to unofficial data, this figure is much higher, because only a child psychiatrist has the right to make an official diagnosis, and modern Ukrainians still have a negative and fearful attitude towards specialists in this profession, so they do not visit specialists, explaining the child's antisocial behavior by peculiarities of character. Recent studies show that if any of the close or distant blood relatives show signs of the syndrome, the risk of its manifestation in another family member is 5-7 times higher than in families in which the problem did not exist. The risk of developing ADHD increases to 50% if one parent had or has a hyperkinetic disorder. These facts suggest that ADHD is a disorder that is passed down from generation to generation, i.e. genetically determined.

Thus, the American Academy of Pediatrics (AAP) advises to evaluate as a hyperactivity disorder all children aged 4 to 18 years who have behavioral problems or learning problems and are often inattentive, impulsive and hyperactive [7]. Diagnosis requires a minimum of 6 matches of symptoms from each group: of 9 symptoms of inattention and of 9 symptoms of hyperactivity and impulsivity. These symptoms should be manifested continuously for at least 6 months in different situations and in at least two social environments. Also the symptoms themselves should be manifested before the age of 12, without any explanation by other mental disorders.

Unfortunately, clear diagnosis of ADHD can not be made before 12 years, although its symptoms are already clearly manifested in pre-school age (from 4 years) and have a subsequent negative impact on the child.

Thus, hyperactivity is a stable trait of the child, which, however, may change with age, may be expressed to varying degrees depending on the situation. Depending on the accepted definition of ADHD, the age of the subjects and other factors, the ratio of boys to girls with this syndrome worldwide is from 2,5:1 to 10:1 [9; 11]. This difference in performance, according to some authors, is due to the underestimation of the problem among girls, due to the fact that they are more likely to have a subtype with a predominance of impaired concentration.

Pedagogues also do not always understand the true reason of the behavior, failure and socialization of children with ADHD, explaining this as a result of poor parenting.

Accordingly, such children do not receive timely diagnosis, medical care and the necessary psychological and pedagogical support, they are not involved in habilitation activities by both physicians and teachers.

The first symptoms of ADHD appear in pre-school age, when the child's brain is still very plastic, so it is important to detect them at the early stage and start the child's rehabilitation in time. In this case, it is advisable to provide information to parents about the proper organization of life and the creation of the sensory enriched environment for such a pre-schooler.

The objective of the article is to actualization of the definition of “habilitation activity” and acquaintance with the theoretical model of creating the educational program for training specialists in this activity.

Presentation of the main research material. Methodological principles of the study are: personality-oriented and systemic approaches, cultural and historical theory.

Personality-oriented approach (I. Bekh, V. Slobodchikov, etc.) involves the creation of safe, comfortable conditions for the development of the child's personality on the basis of self-development and realization of their natural capabilities and assimilation of cultural values in the society. We consider the child's personality as a priority subject, which becomes the goal of organizing adaptive, psychologically safe educational system. Achieving positive results of correctional and developmental work with children with symptoms of ADHD, in terms of their inclusion into the educational process is achieved by mastering all subjects of the process (teachers, professionals, parents) means of interaction based on individual characteristics of children based on knowledge of methods and techniques of correctional pedagogues.

System approach (B. Hershunskyi and others) is the basis for the analysis of mental development, health and socialization of children, presented by us as a holistic biological and social system – a starting point and a basic essential concept in determining the criteria for assessing the quality of correctional work with children. The system approach served as a methodological basis for designing and modeling the organization of support for children with symptoms of ADHD. Education and training of children is built in accordance with the provisions of *cultural and historical theory* of L. Vyhotskyi: about the general regularities and specific features of children with developmental disabilities, about the leading role of learning in the development, about the organization of sensory enriched environment as a necessary condition for socialization of a child, forming integration qualities of the personality, intelligence and activity [3].

Methodological basis of the research make up theories: integration of the system of special and general education (V. Seliverstov, O. Strebelieva and others); unity of regularities of development in the conditions of ontogenesis and dysontogenesis (L. Vyhotskyi, V. Lubovskyi and others); modern concepts of general and special (correctional) pre-school education (O. Strebelieva, L. Fedorovych and others); health and psychosomatic relations (I. Arshavskyi and others); pedagogical support (M. Bezrukikh and others) and psychological-pedagogical support (M. Bytianova, O. Strebelieva and others).

Disorders of attention deficit and hyperactivity are often defined by the terms “hyperkinetic disorder”, “hyperkinetic dissonance”, “hyperkinetic syndrome” and so on. The disorder in question has been known under various names for more than 150 years. The English-language abbreviation ADHD (Attention Deficit / Hyperactivity Disorder), which was proposed by the American Psychiatric Association (DSM-IV) classification, as well as the International Classification of Diseases ICD-10 (ICD-10), proposed by the World Health Organization, is generally accepted. [9].

In this research, we will use the following definition: *Attention Deficit Hyperactivity Disorder* is a neurological-behavioral syndrome of developmental disorder that manifests itself in pre-school age and is characterized by symptoms such as difficulty concentrating, hyperactivity and poorly controlled impulsivity. This syndrome is considered to be one of the most common psycho-neurological disorders, in which attention deficit is brought to the fore [2; 8].

Also important for us are the diagnostic criteria of ADHD, which are defined by the modern system DSM-5 [9].

DSM-5 is a nosological system of mental disorders, which was developed and published by the American Psychiatric Association in 2013. The diagnostic criteria of the DSM-5 ADHD cover clear features and requirements and are based on a comprehensive medical, educational, experimental and psychological assessment [10].

Children with ADHD include those who are inattentive, impulsive, and hyperactive. *The causes* of ADHD are: pre- and perinatal pathologies, pathologies of pregnancy and childbirth, genetic conditioning, toxic conditioning (lead, salicylates, carbohydrates).

Mechanisms of ADHD are determined by: MBD (minimal brain dysfunctions), dysfunctions of neurotransmitter systems, dysfunctions of various parts of the brain responsible for the organization of attention processes, immaturity of the regulatory structures of the brain.

Manifestations of ADHD are called by most researchers like: disorders of organization of activity, speech and sensorimotor disorders, immaturity of intellectual skills, “soft” neurotic symptoms, complex difficulties in receiving and processing information, antisocial behavior.

The interdependence of the negative factors associated with the disorder indicates the need to include the child and family in care programs at an early stage of life. In modern pedagogical science, early comprehensive care for children from 0 to 3 years is recognized as the effective means of prevention and compensation of existing developmental disorders, but it is for children with ADHD, there is a lack of specialists who would have professional training in habilitation activities with pre-schoolers.

Analysis of recent researches and publications, highlighting previously unsolved parts of the overall problem. The concept of “habilitation” has ambiguous interpretation, there is no single definition for the term. Usually scientists use close in meaning and used in Europe (Denmark, Sweden, etc.) the term “normalization”. Translated from Latin, “habilitation” literally means “granting rights, opportunities, ensuring the formation of abilities” and is often used in child psychiatry for people suffering from a certain physical or mental disability from an early age [11].

This term is also used in medicine, psychology, special and social pedagogy. From the point of view of special pedagogy, *habilitation* is a complex of services, actions directed on formation of new and strengthening of available resources of social and psychophysical development of the child. Researchers state that the important task of the process of habilitation of infants, young and pre-school children is to promote the formation of competence of parents and other subjects of the educational process, they also suggest using the term “habilitation” to denote the need to create new abilities of a special child, comparing to the abilities of a healthy child by means of medical, pedagogical and other methods [4].

In this context, the concept of “habilitation” is more complete only when compared to the concept of “rehabilitation” (return of ability), because a child born with certain disorders does not regain once lost abilities, but acquires them. In the medical literature, the clearest division of these concepts is given in the textbook on neuropathology by L. Badalian: “Habilitation is a system of medical and pedagogical measures aimed at preventing and treating those pathological conditions in young children who have not yet adapted to the social environment leading to the permanent loss of the ability to learn and be the useful member of the society. Rehabilitation is a system of medical and pedagogical measures aimed at preventing and treating pathological conditions that can lead to temporary or permanent disability. Rehabilitation aims to be able to quickly restore the ability to live and work in the normal environment. It is necessary to speak about habilitation in those cases when the pathological condition of the patient disabling him or her arises in the early childhood. The child of this age has not yet formed normal motor stereotype, gnostic-practical and speech functions. This child does not have self-care skills and experience of social life” [1, p. 337]. Supporting the opinion of the well-known neurologist, L. Borovykov notes: habilitation is not compensation and, moreover, not rehabilitation. This is the work on the formation of socio-psychological and spiritual-moral innovations that ensure the growth of the quality of life of children with disabilities [6, p. 310]. Habilitation is primarily an activity that stimulates the potential abilities of children and which is aimed at forming optimal skills of social adaptation, creating new opportunities, building social potential, i.e. the ability of the individual to be realized in this context.

In the Law of Ukraine “On Rehabilitation in the Field of Health Care” (Article 1) the term is used in the following meaning: habilitation is a set of measures to help a person with congenital and / or those that arose at an early age, limitations of daily functioning to achieve optimal level of functioning in the environment. It is this definition that we will use within the article.

We believe that the term “habilitation activity” is more accurate and precise than “habilitation work”.

Based on the interpretation of activity as a process (processes) of active interaction of the subject with the object, during which the subject meets any of its needs, achieves the goal, or any

human activity to which a certain meaning is given, then the broad term “work” is defined as “to do something, to carry out”, it is necessary to give preference to the introduction of the term “activity”.

Let's define the working term “habilitation activity”. It is a special, multifaceted type of activity of the teacher, associated with the provision of timely assistance in recovery and the creation of the new abilities of a child with special needs. We also consider it logical to use the terms “special children” or “special child”, introduced by M. Seligman and R. Darling [5], because it is too early to use the term “special educational needs” for young children.

In our opinion, the main purpose of the pedagogue's habilitation activity is: providing children with pedagogical, speech therapy and social assistance, ensuring the fullest and earliest social adaptation, timely development, training and education according to the needs of a particular child (early intervention services or programs). The effectiveness of medical and pedagogical measures is determined by the timeliness, interconnectedness, continuity, succession in the work of different parts.

These measures must be of comprehensive character. An important condition of complex (multidisciplinary) influence is the coordination of actions of specialists of different profiles: pediatric neurologist, psycho-neurologist, speech therapist, speech pathologist, psychologist, educator. Analytical review of the literature on the research problem and statistical data of the analysis of questionnaires suggests that the level of competence of educators who work with children with ADHD should be higher than it is. Acquiring the competencies necessary for the implementation of habilitation activities is possible only with systematic formal and non-formal education. Necessary competencies (axiological, cognitive and praxeological) that can be acquired by undergraduate students studying in the educational program “Pre-School Education. Speech Therapy” is a system of values, knowledge and skills that help them participate in the process of habilitation of children of early and pre-school age.

Axiological competence is a system of students' worldview, their value and motivational orientations. *Cognitive competence* includes practice-oriented knowledge from various fields of science that contribute to the fulfillment of tasks of the child's habilitation process. *Praxeological competence* involves a variety of skills and abilities formed under the influence of the cognitive component. These significant components of the competence of the future pedagogues provide a high level of preparation for active participation in the process of habilitation activities with children of early and pre-school age. The readiness of undergraduate students is the ability to habilitation activities, which is formed in the process of preparation for this activity, the result of which is readiness.

Analysis of the educational programs for the bachelor's degree testifies to insufficient attention to modern problems of development of children of early and pre-school age who have special needs. This state of teaching disciplines of professional profile necessitates the development and implementation of new requirements for the preparation of programs for the future professionals and the revision of approaches to habilitation activities in particular. In accordance with the accepted levels of methodological knowledge in modern science, designing the basics of developing training programs for the future professionals to habilitation activities of young and pre-school children, we proposed the theoretical model that should be considered at the philosophical, general scientific and specific scientific levels.

The philosophical basis for the development of the educational program for the training of the future professionals for habilitation activities is the position of anthropological, phenomenological, existential, synergetic and dialogical approaches. The mentioned basis allows recognizing for each child and parents the right to individuality and differences, the formation of parents' own ideas about the “life world” of their family and their child. Recognition of human ability to self-development and self-actualization changes the methodology of pedagogical interaction. The modern approach is based on the dialogue of all participants of the interaction (children, parents, pedagogues and speech pathologists) as “open” systems.

The important methodological approach is the philosophical concept of the unconditional value of life. Such an imperative is especially important in the field of assistance to children with ADHD. Adoption of this ethical approach contributes to the humanization of habilitation activities, being the important prerequisite for the moral development and self-development of its subjects [4].

At the general scientific level, the research methodology is a systematic approach – a link between philosophical and specific-scientific methodology. The systems approach allows us to consider the development of training programs for the future professionals for habilitation activities as a system of interconnected components. Each component of the system mutually effects the effectiveness of its implementation.

The specific scientific level of theoretical and methodological foundations of understanding the development of educational programs for training future professionals for habilitation activities is represented by a set of scientific approaches to the implementation of pedagogical conditions that provide the opportunity to develop the quality program. The educational program of preparation of the future specialists in the institution of higher education for habilitation activity is a complex multidisciplinary formation, various aspects of which are the object of the research of many scientific disciplines.

First of all, it is special pedagogy, psychology, sociology and pedagogy. Integration of knowledge of these branches of sciences on the basis of interdisciplinary methodological bases in social and pedagogical research would allow to reveal a holistic picture, to define the context and conditions of development. Thus, in our opinion, educational training programs should include the following concepts: “habilitation”, “habilitation activity”, “habilitation environment”, “habilitation space”, etc.

It should be mentioned that the *formation of habilitation environment* is an imperative of the quality of education of children with ADHD. The habilitation environment allows extensive use of the habilitation potential of the educational process; to form a favorable socio-psychological climate for the optimal development of each child in accordance with their characteristics and abilities; to ensure the integration of the activities of parents of teachers, psychologists, medical workers.

The implementation of habilitation programs (early intervention programs) should be family-centered, because the participation of parents in the process of habilitation of the child determines its effectiveness and allows for continuity in the activities of specialists of pre-school education with parents under the conditions of family.

In addition, the psycho-emotional state of family members is normalized, preventing negative changes in the family system, which is a factor in preventing possible social orphanhood. The analytical review of the literature on the research problem allows to suggest that the competence of parents who have children with ADHD is a system of values, knowledge and skills that help them to participate in the process of habilitation of their own child.

Educational programs of preparation of the future professionals for habilitation activities should also include student’s knowledge of the system of parents’ worldview, their values and motivational orientations, about the readiness / unavailability of parents to actively participate in the habilitation of the child. In the structure of the educational program of preparation of the future specialists for habilitation activity the competences which will allow the pedagogue to take part effectively in the process of habilitation of the pre-schooler should be defined.

Conclusions. Proposed by us theoretical model of drawing up of the educational program of preparation of the future specialists for habilitation activity helps to comprehend all set of problems, to reveal and substantiate further pedagogical conditions of its realization.

It is important to emphasize that most researchers state that full-fledged assistance to a child with ADHD should include not only a system of habilitation measures, but also comprehensive psychological, medical and pedagogical work to build a habilitation environment (space) and activity that best encourages the child to use acquired functions in the natural conditions. The tasks on the organization of the directed activity of the child, creation of motives to performance of the actions causing difficulties, to overcoming of own obstacles enter into sphere of pedagogics and

psychology. The sooner a child with ADHD gets the opportunity to actively act in the adequately organized environment, the better the result will be for their further development, the more effective will be the habilitation measures.

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3.1.12 Didactic visualization as a means of forming the speech personality of a child with a speech disorder

ДИДАКТИЧНА НАОЧНІСТЬ ЯК ЗАСІБ ФОРМУВАННЯ МОВЛЕННЕВОЇ ОСОБИСТОСТІ ДИТИНИ З ПОРУШЕННЯМ МОВЛЕННЯ

Найбільший скарб кожного народу – це його мова, найдорожчий – це його діти. Загострення проблеми формування мовленнєвої особистості дитини зумовлене низкою причин, зокрема необхідністю розв’язання сукупності завдань, значущість яких підкреслюють положення, що відображено в державних документах (Законах України «Про освіту», «Про дошкільну освіту», «Базовому компоненті дошкільної освіти в Україні»); зміною освітніх пріоритетів і ціннісних орієнтирів, що вимагає принципових змін у змісті та процесі організації просторового, часового, мовленнєвого середовища закладу дошкільної освіти; відсутністю або бідністю мовлення сучасних дошкільників.

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PART 3. INNOVATIONS IN MODERN EDUCATION AND SCIENCE: THEORY, METHODOLOGY AND PRACTICE

3.1 THE USE OF INNOVATIVE TECHNOLOGIES IN THE TRAINING OF FUTURE PRESCHOOL EDUCATION SPECIALISTS

3.1.1 *Nataliia Honchar*– Khmelnytskyi Humanitarian-Pedagogical Academy

Larysa Zdanevych– Khmelnytskyi Humanitarian-Pedagogical Academy

Tetiana Tsehelnik– Khmelnytskyi Humanitarian-Pedagogical Academy

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Monograph 43

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