



# 1. НАУКА – ПРАКТИЦІ



## Ivan Voloshchuk,

Doctor of Pedagogical Sciences,  
Associate Professor, Head of the Department  
of Innovation Technologies in the Education of Gifted  
of Institute of Gifted Child of NAES of Ukraine,  
Kyiv

ORCID: <https://orcid.org/0000-0001-9300-0584>



## Yaroslav Rudyk,

Candidate of Pedagogical Sciences,  
Associate Professor of the Department  
of Teaching Methods and Management  
of Educational Institutions,  
Kyiv

ORCID: <https://orcid.org/0000-0001-5382-1505>

УДК 376.54

DOI: [https://doi.org/10.32405/2309-3935-2019-2\(73\)-5-12](https://doi.org/10.32405/2309-3935-2019-2(73)-5-12)

## SPECIAL EDUCATIONAL PROGRAMS FOR GIFTED

### Summary.

The article analyzes educational strategies that teachers can use to work with gifted individuals. Mostly these strategies apply to younger and upper secondary school pupils. At the same time, they can also be used for student youth education. At the same time, the main attention is paid to the analysis of special educational programs for students of junior and high school. Specifically, such special educational programs as school at school and other non-inclusive programs are considered. From the above analysis it is clear those special educational programs for gifted are of a different nature. Some of them are aimed at improving the efficiency of education in the system of their formal education, such as organizing their accelerated or enriched learning in homogeneous or heterogeneous educational environments, respectively. Other special educational programs are aimed at providing gifted advisory services (the Catalyst program). However, the largest number of these programs is devoted to giving gifted individuals additional educational services. Among the programs of this type, the program focuses on the development of gifted creative potential. As a result, an analysis of programs for training creativity, improving creativity and training attention, attracting talented to the visual activities, concludes on the effectiveness of these programs. The special educational programs for expanding and deepening knowledge gifted in mathematics and natural sciences are not lagging behind in popularity. For example, programs that provide for the creation of resident schools and academies for mathematically gifted, the effectiveness of attracting science-research-gifted programs, etc. are analyzed. An example of a program aimed at developing the talents of gifted individuals is also provided. A separate unit analyzes the organizational forms of the introduction of special educational programs for gifted. First of all, this is a remote mastering. Summer intensive courses have also become widespread. In this regard, data is given on the impact of such programs on the social perception of gifted, sexual differences in the choice of summer courses by gifted. A number of special educational programs for the gifted individuals with low socioeconomic status, as well as those from the social minorities in the USA are analyzed. The vast majority of special educational programs for gifted have been developed and implemented in this country. However, today such programs are being created in other countries, including China, Israel, Portugal, etc. The analysis of dual-purpose programs (development of talents of gifted senior pupils and their involvement in the mastering of certain courses at higher education institutions) was also conducted. Examples of mentoring and tutoring programs are given. In the end, the focus is on several programs for teachers who work with gifted, and the results of content analysis of the special educational programs for the latter.

**Key words:** gifted individuals; gifted learning strategies; special educational programs; distance learning; summer courses; special programs for teachers.

When it comes to creating the conditions for effective training and development of gifted individuals, researchers and practitioners offer a variety of ways and

means. First of all, they are strategies for accelerated and enriched learning, learning gifted in homogeneous or heterogeneous environments, and attracting them to special



educational programs. Such programs include a series of measures for the formal training of gifted or providing them with additional educational services. There are many special educational programs for gifted students. Each of these programs in its own way is unique in terms of direction, methods of selecting participants and organizational forms of implementation.

A trend is emerging to open enrollment for honors and AP classes to all students who wish to take them. Teachers of these open enrollment classes may be facing several dilemmas. How can the high standards and academic rigor of the course be maintained? How can students who struggle to learn be supported in their endeavors to keep up with the course content and pacing? What specific strategies can teachers use to meet the wide variety of learning needs in open enrollment classes? S. Winebrenner [1] describes compensation strategies for students who may be struggling to keep up, as well as opportunities to work more independently for the most advanced students in a class.

The authors [2] conduct open-ended surveys of 530 students and teachers in three publicly funded schools with different approaches to providing a high-ability «school – within-a – school»: a gifted program, an international baccalaureate program, and a high-ability program with a science focus. Overall, the authors find that teachers and students in all of these gifted programs express strong satisfaction with their academic programs. At the same time, however, all groups (students and teachers in gifted and regular programs at all three schools) express concerns about the relationship between the special gifted programs and the schools within which they are housed. Based on an analysis of stakeholders' concerns and suggestions in the contexts of the different schools' approaches to integration, suggestions are made for and questions are raised about fostering a positive school climate in secondary schools that offer programming for high-ability learners.

For many educators, the goal of programs for the gifted is «the education of identified gifted students». The article [3] argues that this goal makes gifted and talented (GT) programs vulnerable to discontinuation and relegates gifted children to inclusionary, regular classrooms where their needs are rarely met. To avoid these possibilities, the goal of GT should be reformulated to «the development of gifted young adults». This goal has several advantages, including the possibility of a more enriched curriculum and a more diverse group of children with higher creative-productive potential. It also includes the overt recognition that these children require both differentiated instruction and specialized guidance to acquire a measure of expertise, establish a strong sense of self, and make personally satisfying career choices. The Growing Giftedness model presented would have GT students work more closely with adults and with one another than the inclusionary model or part-time gifted programs can allow. In addition, this model adumbrates the elements of a full-time program.

A recent evaluation of the Catalyst Program [4], a resource consultation and collaboration program in gifted

education, was conducted in order to investigate the effects of student academic performance and teacher competencies, as well as the effectiveness of the consulting process applied to gifted education. In a two-year pilot program, general educators and gifted education specialists at 10 elementary schools in a large, urban school district consulted and collaborated with one another to provide differentiated educational experiences to gifted learners. Results indicate that the model was an effective service delivery strategy for providing differentiated education to gifted learners, had positive spill-over effects for the entire school, led to a redefined role of the gifted education specialist, and initiated an articulation of the nature of the consulting process when applied to gifted education.

Combining both the Western perspective of creativity as productivity and the Eastern perspective of creativity as enlightenment, a Program for Enlightened and Productive Creativity (PEPC) for teaching inquiry was devised [5]. The PEPC describes stages through which a student is guided to solve a problem using increasingly complex observation, inquiry, and experimentation. The use of this model in teaching is illustrated through a physics lesson of moiré patterns using overlapping patterns found in our everyday life. A case is made that PEPC can be applied to teaching general students, as well as gifted students, and in different content areas.

H.-H. Ma [6] used the method of meta-analysis to synthesize the effect of creativity training. The ProQuest Educational Journal, ProQuest Dissertation Consortium, ERIC, EBSCOhost Databases, the Creativity Research Journal, and the Journal of Creativity Behavior were searched to find studies evaluating the effectiveness of creativity training. The grand mean effect size of creativity training was 0,77. With the exception of training programs and age, no significance was found in the effect of moderators such as dependent variables, duration of training, and experimental design. The results further showed that the older the age of the participant, the larger the effect size, with the exception that the effect size for college students was smaller than that for high school students because of the large standard deviation.

A look at a number of recent experiments reveals that the interaction between breadth of attention and creative performance is mainly based on correlation studies and laboratory creativity tasks, yet task complexity is seldom taken into consideration. Discussion of several methodological aspects recommends the field of sport in particular as a fruitful area in which complex behavior can be studied in a complex context. An exploratory 6-month longitudinal study ( $n = 48$ ) [7] proved the influence of an attention-broadening training program on the development of creative performance in the area of team sports. Creative performance was measured by a real-world sport-specific creativity task with 2 different kinds of complexity levels. A comparison between a control group and a treatment group, which focused on training a narrow breadth of attention, showed that the creative performance improved significantly (partial  $\chi^2 = 0,51$ ).



An attention-broadening training program facilitated greater improvements in creative performance in complex tasks than in simple tasks.

Performing and visual arts schools are found in most major cities in the United States, and their number is growing. Student success in schools of the arts is well documented, with a variety of arts schools opening each year at all grade levels. R. Daniel [8] provides an overview of the characteristics of an effective arts education program, descriptions of the various options available for artistically talented students seeking specialized training through performing and visual arts schools, and guidelines to those interested in planning a new school for the arts.

How much confidence, based on recent research evidence, can educators have in using creativity training programs in their classrooms? In general, little research has been done since the significant reviews conducted 5 years ago, and much of the research is inaccessible to teachers. Research continues to focus primarily on using strategies in classrooms. Some research is beginning to look at aspects of the creative person, product, and environment, but more could be done to look at the interactions among these. The continued emphasis on classroom strategies raises concerns about the failure by researchers to address issues of strategy transfer to other environments [9].

The admission procedures for identifying and selecting students in special residential schools of mathematics and science in the United States were studied [10] through interviews with school officials and examination of the schools' literature on admissions. The selection criteria included tests of verbal and mathematical aptitudes, home school grade-point averages, ratings of behavioral characteristics, and interviews. The selection stages included recruitment, application file development, file reviews, interviews, and selection decision making.

In the interview [11], Dr. Robert Pavlica discusses the Byram Hills High School Authentic Science Program, which he founded and directs. This program has been replicated in school districts throughout the country, and the expense to start and maintain it is minimal. Students are self-selected into the program based on their desire to study and succeed, not on their grade-point average. By undertaking this 3-year program, students learn not just about science, but how to do science like a practitioner in the field. First, students identify a topic they wish to investigate by doing an extensive review of articles. Then, they find a mentor to help them do research on their topic. Finally, students publish their results. In 2004, Byram Hills High School, which has only 600 students, was tied for first place in the nation with respect to the number of finalists and semifinalists in the Intel Science Talent Research Competition.

Julian Stanley, director of Johns Hopkins University's Study of Mathematically Precocious Youth, heads a national search for those who may become tomorrow's leading scientists. In interview [12] Stanley tells how students can qualify for the program and offers advice on educating the gifted.

The Texas Academy of Mathematics and Science (TAMS) is a state-supported, tuition-free residential high school at the University of North Texas, one of 14 similar academies in the U.S. TAMS students earn dual high school and college credit, graduating in 2 years with 60 or more transferable college credits. Some 200 high school juniors are admitted each fall from a competitive statewide pool based on exceptional SAT scores and other credentials. While hundreds of highly capable students seek admission each year, hundreds of others withhold applications. Responding to a survey, gifted no applicants reported an unwillingness to leave home 2 years earlier than usual and a reluctance to abandon varsity athletics and associated extracurricular activities [13].

The study [14] examined the effects of a service-learning program on the development of civic attitudes and behaviors of 230 high school students who were identified as academically gifted and participated in either a service-learning program or an accelerated academic program during the summer. Students' responses to 3 surveys measuring civic responsibility, civic behavior, and leadership skills showed that enhanced civic responsibility, particularly a greater awareness of civic issues and a stronger connection and commitment to the community, was found among the students who participated in the service-learning program. Significant differences were not found for civic behaviors and leadership skills as a result of participation in the service-learning program. Longer term studies with students and examination of the type of service-learning activities students choose to get involved in are suggested to corroborate the positive outcomes of the service-learning program.

Even though many universities and secondary schools have developed a variety of distance learning options, few are designed specifically for gifted students. The paper [15] provides background information about distance learning, the rationale for it, descriptions of three programs designed specifically for gifted students, and the pros and cons of providing instruction using this method of delivery.

Students enrolled in 8 summer intensive physics courses for academically gifted students participated in a pilot study to assess the effectiveness of such courses compared to ordinary year-long high school physics courses [16]. The students in each class completed the Force Concept Inventory (FCI), and the average normalized gains for each class were compared with previously published data from both year-long high school courses and semester-long college courses. The average gains achieved by students in the intensive courses were comparable to those achieved by students in the ordinary-length courses. Recent work in physics education research has made such direct comparisons of standard-length and intensive physics courses possible and also suggests ways to improve student learning in both types of courses.

Inner Spark [17] is a residential summer arts training program for high school students established by the California State Legislature in order to make it possible for «artistically gifted and talented students, broadly





representative of the socioeconomic and ethnic diversity of the state, to receive intensive training in the arts through a multidisciplinary program». Students who attend Inner Spark participate in a program focusing on one of the following arts: visual art, animation, creative writing, dance, film – and video-making, music, or theater. Inner Spark has taken place every summer since 1987, usually on the college campus of the California Institute of the Arts in Valencia; C.A. Inner Spark is a highly selective program. Typically, each year more than 1500 students apply, and approximately one third of the applicant pool is accepted. Admissions decisions are made without regard to the student's ability to pay. Inner Spark is supported by public and private funding, and scholarships are provided to those who need them.

In the study [18], the authors examined gender differences in course enrollment patterns, reasons for course choice, and enjoyment of course. Participants consisted of 804 academically talented students (433 females, 371 males) attending a summer program. Data were self-reported and were collected on a program evaluation questionnaire. Males enrolled in traditionally male (TM) courses in significantly greater numbers than they enrolled in traditionally female (TF) courses, but female enrollment in the two types of courses was more equal. Asian American students' course enrollment in TM and TF courses was more balanced than non-Asian American student enrollment, and Asian American students endorsed fewer internal reasons than non-Asian students did. Students in TM classes endorsed more external reasons for course choice than their colleagues in TF classes. Finally, students who gave more internal reasons for course choice reported enjoying classes more than students who gave more external reasons. No gender differences in motivation were found.

A.N. Rinn [19] investigates the change in social self-concept among adolescents participating in a summer program for the gifted. Participants include 140 gifted students who had completed the 7<sup>th</sup> through 10<sup>th</sup> grade during the previous academic year. Social self-concept was measured at the beginning and end of the summer camp using the same-sex peer relations and the opposite-sex peer relations subscales of the Self-Description Questionnaire II. Results indicate both males and females experienced an increase in their perceived same-sex peer relations and their perceived opposite-sex peer relations over the course of the summer program.

The editorial [20] addresses three issues for which there is increasing scientific and practical knowledge about solutions. *First*, poverty, especially intergenerational poverty, is re-affirmed to have devastating effects on families and children. These include delays in young children's developmental progress, lowered aspirations, and increased apathy among older children and adults, and school failure or withdrawal of many capable children. *Second*, intensive targeted interventions in the first five years of life are evaluated as effective in preventing the significant intellectual dysfunction that may result from intergenerational poverty. Effectiveness of interventions, however, depends on (a) the quality and intensity of the

intervention (with no demonstrated positive outcomes for weak programs); (b) the integration of educational programs with other aspects of a child's life, including later schooling experiences; and (c) the severity of the child's initial biosocial risk. *Third*, issues about how to develop and implement a nationwide effort to prevent environmentally induced handicaps are highlighted. The political and economic problems to be confronted are beyond the realm of science, but the societal benefits that can be realized provide a compelling rationale for creating a new coalescence of public and private resources dedicated to enhancing families who cannot assure their children an intellectual adequate environment.

Finding concrete ways to help children of poverty develop advanced skills in the critical areas of reading comprehension and literary analysis, as well as persuasive writing, is the worthy goal tackled by Project Athena, a Javits program funded by the United States Department of Education and developed through the Center for Gifted Education at the College of William and Mary [21]. Now in its fourth year of operation, the project has 2 years of data suggesting that the emphases of the curricula are beneficial to students from Title I schools in three states that have been identified as gifted, those identified as promising due to strong reading ability, more typical learners, and some special education students.

The article [22] describes a grant-funded effort to improve the lives of academically able middle and high school students living in rural poverty. The program, Project Aspire, attempts to increase the number of these children in the most rigorous math and science coursework available in their schools. To that end, Project Aspire assists 14 school corporations by helping faculty in those settings increase the level of rigor of their courses and by offering Advanced Placement (AP) courses through multiple platforms of distance education technologies. A primary component of the project is the attempt to assist the school counselors' work with their students, in hopes that the students' lives will be improved. To prepare the counselors, ongoing training has been provided. This paper reports an analysis of the ideas and experiences shared during the lengthy training sessions with 21 school counselors. From the analysis and a literature review, the authors offer concise information for effectively working with high-ability middle and high school students living in rural poverty.

Project EXCITE is a program for minority students that supplements the regular school offerings with an emphasis on enhancing students' interest and performance in math and science. The study [23] examines the experience and perceptions of 14 student participants in the program and their parents. In student and parent interviews, Project EXCITE was deemed fun and challenging and as enabling the students to enrich and improve academic performance. A desire for placement in advanced academic settings and better preparation for schoolwork in high school motivated the students to persist in the program for 6 years. The perceptions of expanded social networks with high ability minority peers, enhanced social sup-



port for high achievement, and confidence to successfully compete academically with peers were other positive outcomes. Negative peer pressure was not identified as a concern, but balancing academic work and social interaction with peers outside the program was a major concern for students. There is a growing demand for programs and initiatives to achieve the goal of reducing or eliminating the achievement differences between high-potential White or Asian students and high – potential African-American or Hispanic students. Designing effective programs requires attention to and understanding of not only the cognitive variables involved, but also the affective variables. Studying the feelings and perceptions of Project EXCITE students who invested over 400 hours of their time over a six-year period by attending out-of-school classes and studying the feelings and perceptions of their parents offer a new look at some key affective variables that impact the achievement gap. Variables such as a student's sense of belonging, self-confidence, and social network, as well as parental aspirations, must be considered in the design of any program that intends to close the achievement gap.

The most significant educational problem in the U.S. is the fact that the achievement of minority children lags behind that of nonminority children. This is true whether one is talking about suburban or urban school systems and low-income or high-income families. On almost every indicator of achievement including grades, standardized achievement tests, college attendance and completion, minority children do not achieve at the same levels as nonminority children [24].

Minority and low-income students traditionally have been underrepresented in programs for the gifted. Researchers have suggested using multiple criteria for identification of minority and low-income students and providing support for these students when they participate in gifted programs. The nine-year database study [25] examined factors related to the return rate of nontraditional students who were identified with multiple indicators and who received support while participating in a summer program for academically talented youth. Results indicated that grade point average, achievement test scores, final grade in the first summer of attendance, and socioeconomic status were not significant predictors of returnee status. The authors suggest that more attention be paid to psychosocial variables and that follow-up studies be done with no returning students.

The Israel Arts and Science Academy is a residential high school for gifted students [26]. The academy is a greenhouse for holistic excellence with visual arts, music and science as majors. The development of an independent learner with wide cultural interests, creative approach and high sensitivity to ethical problems, was the curriculum's main goal. Implementation of the learning vision was measured by comparing IASA students' learning perception with traditional school's students' learning perception, by integrating qualitative, quantitative research methods. Results show that IASA students view learning as an active process of deep thought, originality, creative thinking, and self structuring of knowledge. Reg-

ular school's students focus on outcomes, on fulfillment of tasks in learning, absorbing material from the teacher and repetition. The students' learning perceptions were closely bound with the character of the learning environment they attended; hence it can be viewed as a realization of their school's learning vision.

The enrichment program MORCEGOS (motivation, originality, reasoning, curiosity, elaboration, generalization, observation, and sensibility toward problems) is described in the article [27]. The main goal of this program is to develop creativity in 2 very different school groups: Group A – gifted students (6–14 years) and Group B – students with learning difficulties (12–16 years). For that purpose, an enrichment program was implemented during the school year (2 hr each week). These are the first results of the research from the 2002 school year. To analyze the effect of the program, a pretest was used, Form A of the Figural Test of the Torrance Tests of Creative Thinking; at the final evaluation, Form B was used.

The design and operation of the 1998 Chinese University Summer Gifted Program organized for junior secondary students in Hong Kong are described [28]. This one-week residential program provided enrichment courses, workshops, and special activities intended to enhance creativity and leadership abilities in students. Evaluative ratings on various aspects of the program indicated that program participants, program instructors, residential counselors, and parents of students expressed overall satisfaction with the program. Students also had higher ratings on self-perceived leadership ability and creativity in post program, as compared with preprogram, assessments.

An 18-item inventory, the Student Adjustment Problems Inventory (SAPI-18), was developed to assess the adjustment problems encountered by 290 Chinese secondary students who were nominated by their respective schools to join the Chinese University of Hong Kong gifted programs [29]. The preliminary 32-item version of this inventory was constructed and then revised to reflect gifted students' adjustment problems in school and at home, based on feedback from teachers, students, and parents. The results of item factor analysis of the 32-item version yielded 6 problem dimensions/domains: relationship/ability concerns, unchallenging schoolwork, intense involvement, concerns for being different, parental expectations, and perfectionism. Students' self-report data indicated that strong feelings and involvement, unchallenging schoolwork, and high parental expectations could be common problems among gifted and talented students in Hong Kong.

The advent of the new millennium has created a new willingness to accept change as a natural event. Change in the way we prepare personnel to work with gifted students is one that is needed. The education of gifted students has been a part of the American scene for over seven decades. During that time, the focus of these special efforts has been mainly on the elementary and middle school levels. The education of gifted students at the secondary level has been comprised of *acceleration* (moving



the student more rapidly through the secondary program), *advanced placement* or *honors* courses, and, occasionally, *special schools* like the North Carolina School of Math and Science or the Illinois Academy of Science and Mathematics. Rarely have secondary education teachers had special preparation for meeting the needs of gifted students or even for working with a specialist in gifted education who could provide them with technical assistance on this topic [30].

Legislation in 22 states allows qualified high school students to enroll simultaneously in high school and college courses. Known as dual enrollment, the law varies in its details from state to state, but all versions contain similar core elements. This legislation supports a student's need to move beyond the 12<sup>th</sup>-grade curriculum while still enrolled in high school, and thus, by inference, provides a justification for sequential content acceleration throughout K–12. It also surfaces several important, though controversial, issues: shifting control for educational decisions, awarding course credit and grades, and reallocating tax dollars for tuition [31].

Recognizing that gifted students need to interact with mentors to achieve their potential, the Chinese High School (CHS) in Singapore launched the Mentor-Link (M-L) program to guide its gifted students in their projects [32]. Gifted students are given the opportunity to interact and share mutual interests and passions with scientists in professional and tertiary institutions. The M-L program is structured by guidelines on the roles of students, teacher advisors, mentors and evaluation of projects. Over the last two years, students have done some good projects in the areas of Applied Science, Biology, Innovation, Defense Science, Robotics and Mathematics. Mentoring has provided the CHS gifted program with an opportunity to deal with the heterogeneity of talents in gifted students and enhance their potential.

The ability to summarize content area text becomes increasingly important as the reading demands on students increase. Often it is assumed that by high school students are skilled at reducing a passage to its gist. A Canadian teacher discovered, however, that the summaries of his academically gifted high school students taking a university level chemistry course were a retelling of the original text. Together with a university researcher a short term tutoring project was offered to assist students in developing their summarization skills [33]. The sessions involved 'think aloud' and direct explicit instruction of the strategies followed by practice time and student reflection. The findings of the study revealed that while the students quickly learned the specific steps of the two summarization methods, more time and additional practice were required for autonomous application of these strategies by students. Further, even high achieving students needed to personally buy-in to the benefits of a new strategy.

The purpose of the study [34] was to identify student characteristics that might influence teachers in referring students for gifted programs. The authors developed a series of 12 student profiles to measure teacher bias and asked teachers to indicate how strongly they believed the

students in the profiles should or should not be recommended for their district gifted program. They found the ability to do mental computations overshadowed completion of schoolwork, and the esoteric nature of student interest appeared to be equivalent to completion of schoolwork. They found that completing schoolwork was not a factor when students possessed a large storehouse of information. They also learned that classroom teachers may be more inclined than gifted specialists to focus on student weaknesses, rather than student strengths.

The intent [35] is to describe an «in-the-trenches» model for preparing teachers for service in a rather specialized field. It is presently operating successfully at the University of Winnipeg, in the Province of Manitoba, Canada and is offered to stimulate and guide enrichment and talent development efforts for pre-service teachers in ACCESS, Alternative Education Programs or their equivalents elsewhere in the world. While recognizing some of the information presented is especially pertinent to one particular situation, the hope is that the shared philosophical perspectives and observations might pique the interest of educators in other post-secondary settings. Perhaps by adapting and building upon the principles and concepts salient to this approach, others may be able develop ways to inject more enrichment and innovation into their own programs.

The article [36] delineates the results of 7 gifted program evaluation studies conducted in 20 different school districts and places them in the context of major areas for gifted program improvement. The author suggests that the field of gifted education may be vulnerable to losing its infrastructure at local levels if enhanced program development in key areas does not occur over the next few years and if the studied districts are at all similar to the larger group. The paper discusses key areas of program development including identification, curriculum, program design, staff development, parental involvement assessment, and evaluation. The author contends that attention to these areas is essential for improving gifted program quality and stabilizing programs.

### Conclusions

Той факт, що освітня практика розрахована на середньостатистичного учня, не відповідає здібностям і запитам обдарованих, практично не викликає сумніву. Проте створити умови для ефективного навчання та розвитку обдарованих в умовах масового навчання досить не просто. Прискорене навчання обдарованих вимагає створення з них гомогенних класів, що не завжди можливо і передбачає певні негативи. Збагачене навчання обдарованих у гетерогенних класах можливе за умови здійснення його диференціації, що супроводжується додатковим, часто несприятливим, навантаженням для вчителів. Як наслідок на допомогу приходить запровадження спеціальних освітніх програм для зазначеної категорії учнів. Часто цей підхід є єдиною можливістю у розв'язанні проблеми створення необхідних умов для ефективного навчання в розвитку обдарованих особистостей.





**References**

1. Winebrenner, S. (2006). Effective Teaching Strategies for Open Enrollment Honors and AP Classes. *JSGE*. Vol. 17. No. 3.
2. Matthews, D., & Kitchen, J. School-Within-a-School Gifted Programs. Perceptions of Students and Teachers in Public Secondary Schools. *Gifted Child Quarterly*. Vol. 51. No. 3. P. 256–271.
3. Bernal, E.M. (2003). To No Longer Educate the Gifted: Programming for Gifted Students Beyond the Era of Inclusionism. *Gifted Child Quarterly*. Vol. 47. No. 3. P. 183–191.
4. Landrum, M.S. (2001). An Evaluation of the Catalyst Program: Consultation and Collaboration in Gifted Education. *Gifted Child Quarterly*. Vol. 45. No. 2. P. 139–151.
5. Yuk, K.C., & Cramond, B. (2006). Program for Enlightened and Productive Creativity Illustrated With a Moiré Patterns Lesson. *JSGE*. Vol. 17. No. 4.
6. Ma, H.-H. (2006). A Synthetic Analysis of the Effectiveness of Single Components and Packages in Creativity Training Programs. *Creativity Research Journal*. No. 4. P. 435–446. Retrieved from <http://www.informaworld.com/smpp/title~content=t775653635~db=all~tab=issueslist~branches=18>.
7. Memmert, D. (2007). Can Creativity Be Improved by an Attention-Broadening Training Program? An Exploratory Study Focusing on Team Sports. *Creativity Research Journal*. No. 2–3. P. 281–291. Retrieved from <http://www.informaworld.com/smpp/title~content=t775653635~db=all~tab=issueslist~branches=19>.
8. Daniel, R. (2000). Performing and Visual Arts Schools: A Guide to Characteristics, Options, and Successes. *JSGE*. Vol. 12. No. 1.
9. Hunsaker, S. Outcomes of Creativity Training Programs. *Gifted Child Quarterly*. 2005. Vol. 49. No. 4. P. 292–299.
10. Jarwan, F.A., & Feldhusen, J.F. (1994). Residential schools of mathematics and science in the USA: overview of the admission process. *High Ability Studies*. Vol. 15. No. 2. P. 176–184. Retrieved from <http://www.informaworld.com/smpp/title~content=t713423512~db=all~tab=issueslist~branches=1>.
11. Robinson, G. (2004). Replicating a Successful Authentic Science Research Program: An Interview with Dr. Robert Pavlica. *JSGE*. Vol. 15. No. 4.
12. Brandt, R. (1981). On Mathematically Talented Youth: A Conversation with Julian Stanley. *Educational Leadership*. Vol. 39. No. 2. P. 101–106.
13. Jones, B.M., Fleming, D.L., Henderson, J., & Henderson, C.E. (2002). Common Denominators: Assessing Hesitancy to Apply to a Selective Residential Math and Science Academy. *JSGE*. Vol. 13. No. 4.
14. Lee, S.-Y., Olszewski-Kubilius P., Donahue R., & Weimholt, K. (2007). The Effects of a Service-Learning Program on the Development of Civic Attitudes and Behaviors Among Academically Talented Adolescents. *JEG*. Vol. 31. No. 2.
15. Adams, C.M., Cross, T.L. (1999/2000). Distance Learning Opportunities for Academically Gifted Students. *JSGE*. Vol. 11. No. 2.
16. Hsu, L. (2003). Measuring the Effectiveness of Summer Intensive Physics Courses for Gifted Students: A Pilot Study and Agenda for Research. *Gifted Child Quarterly*. Vol. 47. No. 3. P. 212–218.
17. Chin, C.S., Harrington, D.M. (2009). Inner Spark: A Creative Summer School and Artistic Community for Teenagers with Visual Arts Talent. *GCT*. Vol. 32. No. 1.
18. Schweigardt, W.J., Worrell, F.C., & Hale, R.J. (2001). Gender Differences in the Motivation for and Selection of Courses in a Summer Program for Academically Talented Students. *Gifted Child Quarterly*. Vol. 45. No. 4. P. 283–293.
19. Rinn, A.N. (2006). Effects of a Summer Program on the Social Self-Concepts of Gifted Adolescents. *JSGE*. Vol. 17. No. 2.
20. Ramey, C.T., & Ramey, Sh.L. (1990). Intensive educational intervention for children of poverty. *Intelligence*. Vol. 14. No. 1. P. 1–9.
21. Tassel-Baska, J. Van, & Stambaugh, T. (2006). Project Athena: A Pathway to Advanced Literacy Development for Children of Poverty. *GCT*. Vol. 29. No. 2.
22. Cross, T.L., & Burney, V.H. (2005). High Ability, Rural, and Poor: Lessons From Project Aspire and Implications for School Counselors. *JSGE*. Vol. 16. No. 4.
23. Lee, S.-Y., Olszewski-Kubilius P., Peternel G. (2009). Follow-Up with Students After 6 Years of Participation in Project EXCITE. *Gifted Child Quarterly*. Vol. 53. No. 2. P. 137–156.
24. Olszewski-Kubilius, P. (2006). Addressing the Achievement Gap Between Minority and Nonminority Children: Increasing Access and Achievement Through Project EXCITE. *GCT*. Vol. 29. No. 2.
25. Worrell, F.C., Szarko, J.E., & Gabelko, N.H. (2001). Multi-Year Persistence of Nontraditional Students in an Academic Talent Development Program. *JSG*. Vol. 12. No. 2.
26. Hadar, L., & Erez, R. (2007). Learning Dilemmas of Curriculum: Development at IASA and its Influence on Students' Concepts of Learning. *Gifted and Talented International*. Vol. 22. No. 1.
27. Nogueira, S.M. (2006). MORCEGOS: A Portuguese Enrichment Program of Creativity Pilot Study with Gifted Students and Students With Learning Difficulties. *Creativity Research Journal*. Vol. 18. No. 1. P. 45–54. Retrieved from <http://www.informaworld.com/smpp/title~content=t775653635~db=all~tab=issueslist~branches=18>. v1818.
28. Chan, D.W., Cheung P.C., Chan A.S.K., Leung W.W.-man, Leung K.-wai. (2000). Evaluating the Chinese University Summer Gifted Program for Junior Secondary Students in Hong Kong. *JSGE*. Vol. 11. No. 3.
29. Chan, D.W. (2003). Assessing Adjustment Problems of Gifted Students in Hong Kong: The Development of the Student Adjustment Problems Inventory. *Gifted Child Quarterly*. Vol. 47. No. 2. P. 107–117.
30. Gallagher J.J. (2001). Personnel Preparation and Secondary Education Programs For Gifted Students. *JSGE*. Vol. 12. No. 3.
31. McCarthy C.R. (1999). Dual-Enrollment Programs: Legislation Helps High School Students Enroll in College Courses. *JSGE*. Vol. 11. No. 1.
32. Lim, T.K. (1996). Nurturing Giftedness Through the Mentor-Link Program. *High Ability Studies*. Vol. 17. No. 2. P. 169–177. Retrieved from <http://www.informaworld.com/smpp/title~content=t713423512~db=all~tab=issueslist~branches=1>-v17.
33. Haydey D.C., & Deakin A.A. (2007). Short Term Tutoring Program: Summarizing Chemistry Text with Grade 12 Gifted Students. *Gifted and Talented International*. Vol. 22. No. 2.



34. Siegel D., Powell T. (2004). Exploring Teacher Biases When Nominating Students for Gifted Programs. *Gifted Child Quarterly*. Vol. 48. No. 1. P. 21–29.

35. Baker, Ph.A. (2008). The ACCESS Enrichment Model for an Undergraduate Education Program. *Gifted and Talented International*. Vol. 23. No. 1.

36. Tassel-Baska, J.Van (2006). A Content Analysis of Evaluation Findings Across 20 Gifted Programs: A Clarion Call for Enhanced Gifted Program Development. *Gifted Child Quarterly*. Vol. 50. No. 3. P. 199–215.

### **Волощук І.С., Рудик Я.М. Спеціальні освітні програми для обдарованих.**

Анотація.

У статті здійснено аналіз навчальних стратегій, які можуть використовувати учителі в роботі з обдарованими дітьми. Переважно зазначені стратегії стосуються учнів молодшої та старшої середньої школи. Водночас вони можуть бути використані і в навчанні студентської молоді. Причому головну увагу приділено аналізу спеціальних освітніх програм для учнів молодшої та старшої середньої школи. Зокрема розглянуто такі спеціальні освітні програми, як школа у школі, а також інші неінклюзивні програми. З наведеного аналізу зрозуміло, що спеціальні освітні програми для обдарованих мають різний характер. Одні з них спрямовані на підвищення ефективності навчання в системі їх формальної освіти, як то організація їхнього прискореного чи збагаченого навчання в гомогенних або гетерогенних освітніх середовищах відповідно. Інші спеціальні освітні програми спрямовані на надання обдарованим консультативних послуг. Проте в найширше розглянуто програми, які присвячені наданню обдарованим індивідам додаткових освітніх послуг. На завершення акцентовано на декількох програмах для учителів, які працюють з обдарованими, та наводяться результати контент-аналізу спеціальних освітніх програм для останніх.

**Ключові слова:** обдаровані індивіди; стратегії навчання обдарованих; спеціальні освітні програми; дистанційне навчання; літні курси; спеціальні програми для учителів.

### **Волощук І.С., Рудик Я.М. Специальные образовательные программы для одаренных.**

Аннотация.

В статье осуществлен анализ учебных стратегий, которые могут использовать учителя в работе с одаренными детьми. Преимущественно указанные стратегии касаются учеников младшей и старшей средней школы. В то же время они могут быть использованы и в обучении студенческой молодежи. При этом главное внимание уделяется анализу специальных образовательных программ для учащихся младшей и старшей средней школы. В частности рассматриваются такие специальные образовательные программы, как школа в школе, а также другие неинклюзивные программы. Из приведенного анализа видно, что специальные образовательные программы для одаренных носят различный характер. Одни из них направлены на повышение эффективности обучения в системе их формального образования, как организация их ускоренного или обогащенного обучения в гомогенных или гетерогенных образовательных средах соответственно. Другие специальные образовательные программы направлены на предоставление одаренным консультативных услуг. Однако преимущественно указанные программы посвящаются предоставлению одаренным индивидам дополнительных образовательных услуг. В завершение акцентируется на нескольких программах для учителей, работающих с одаренными, и приводятся результаты контент-анализа специальных образовательных программ для последних.

**Ключевые слова:** одаренные индивиды; стратегии обучения одаренных; специальные образовательные программы; дистанционное обучение; летние курсы; специальные программы для учителей.

Стаття надійшла до редколегії 30 травня 2019 року