

[php?id=257](#) (in Russ).

10. *Shhelkunchik luchshie postanovki 20go veka.* <http://www.balletinsider.com/archive/history/693> (in Russ).

11. *Nazarova T., Dva Shhelkunchika.* <http://pierrot.naz.livejournal.com/6119.html>. <http://pierrot-naz.livejournal.com/5228.html> (in Russ).

12. *Legendy russkogo baleta Ekaterina Maksimova i Vladimir Vasil'ev* <http://www.indiandance.biz/viewtopic.php?t=5879> (in Russ).

13. *Rossijskie zvjozdy shou biznesa* <http://wm-biz.ru/12-10.php> (in Russ).

14. *Guseva L., Sergej Polunin stanceval Shhelkunchika.* <http://www.belcanto.ru/13010702.html> (in Russ).

15. *Chajkovskij P.I., Shhelkunchik fil'm-balet, 1993 god.* <http://www.aveclassics.net/news/2011-12-30-1566> (in Russ).

16. *Nuriev R., Shhelkunchik na Sene.* [http://www.ng.ru/culture/2007-12-26/8\\_schelkunchik.html](http://www.ng.ru/culture/2007-12-26/8_schelkunchik.html) (in Russ).

17. <http://www.inoekino.ru/prod.php?id=5382> (in Russ).

18. *Novosibirskij teatr opery i baleta. Shhelkunchik.* <http://niktaroff.com/categories/ballet/nutcracker-ngatoib> (in Russ).

UDC 371.842

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#### MINOR ACADEMY OF SCIENCES OF UKRAINE AS AN INNOVATIVE ENVIRONMENT FOR SELF-AFFIRMATION OF HIGH SCHOOL STUDENTS

The article briefly describes the activity of Minor Academy of Sciences of Ukraine (MASU) as an extracurricular educational and training institution. The author notes that forms and methods of work, educational and recreational activities of school students allow to considering MASU as the environment for self-affirmation that becomes significant in the high school age.

**Key words:** Minor Academy of Sciences of Ukraine, a self-affirmation, a high school student.

#### УКРАИНАНЫҢ КІШІ ҒЫЛЫМИ АКАДЕМИЯСЫ ИННОВАЦИЯЛЫҚ ОРТАДАҒЫ ӨЗІН-ӨЗІ ТАЛУДАҒЫ ЖОҒАРЫ СЫНЫП ОҚУШЫЛАРЫ

Мақалада мектептен тыс оқу-тәрбие мекемесі ретінде Украина Кіші Ғылым академиясының қызметіне қысқаша шолу ұсынылған. Автор атап өткендей, жұмыстың нысаны мен әдісі, оқу мен сыныптан тыс қызметтің ерекшеліктері қатысушыларға қарауға мүмкіндік береді. Кіші Ғылыми академияның жоғары мектеп жасындығыларды ерекше өзектілігіне ие болатын өзін-өзі таныстыруға мүмкіндігі бар.

**Түйін сөздер:** Украина Кіші Ғылыми академиясы, өзін-өзі, жоғары сынып оқушылары.

### МАЛАЯ АКАДЕМИЯ НАУК УКРАИНЫ КАК ИННОВАЦИОННАЯ СРЕДА САМОУТВЕРЖДЕНИЯ СТАРШЕКЛАССНИКОВ

В статье представлен краткий обзор деятельности Малой академии наук Украины, как внешкольного учебно-воспитательного заведения. Автор отмечает, что формы и методы работы, особенности учебной и внеурочной деятельности учащихся позволяют рассматривать Малую академию наук как среду для самоутверждения, которая приобретает особую актуальность в старшем школьном возрасте.

**Ключевые слова:** Малая академия наук Украины, самоутверждение, старшеклассник.

Self-affirmation is one of the dominant individual needs that acquires special importance in the high school. A high school student has a premonition sense to the future, seeks to get closer to the adulthood as soon as possible. But a prolonged staying within the same collective, a permanent pedagogical staff, a limitation of school educational and training process narrow down the possibility of individual self-realization. The fact that most young people are addicted to the social networks, that give an illusory sense of personal significance, makes it difficult to solve this problem.

So, it's really important for a high school student to try yourself in different activities, realize personal significance, get support from adults and peers, succeed and make sure in their virtues. The author emphasizes a positive aspect of it. It isn't about a self-affirmation above the others, but it's about a self-affirmation of his individuality, his/her own "I", a disclosing own «independence» potential.

According to the above-mentioned, the role of social and training institutions is increasing, and it creates the conditions for a self-affirmation of high student. Minor Academy of Sciences of Ukraine (MASU) belongs to such institutions. MASU is an extracurricular educational institution that has an experimental and research kind of activities. It provides involving the school students into scientific and research, experimental, design and inventive activities in different fields of science, technology, culture and art, and also development and support of gifted and talented youth, creating the conditions for their creative implementation and broadening of their scientific outlook, organization of substantial leisure.

Minor Academy of Sciences of Ukraine is a multifunctional educational system that exercises the following functions:

- education that meets the educational needs of school students in scientific and research activity, advanced studying of separate educational disciplines by means of personality oriented technologies;
- training that implies the formation of nationally conscious, intellectually developed citizen of Ukraine;
- development that provides a gradual growth of school student from a listener to the actual MASU member during his/her studying at primary, basic and higher level

in the scientific sections, workshops and in other creative unions by using the methods of motivation, stimulation and encouragement;

– socialization that provides the creation of environment for social protection, support of gifted person and it maximally contributes to his social adaptation.

Main requirements for the MASU studying and training process are:

1. Determination of the knowledge value, formation of school students educational needs, creative self-affirmation and professional self-determination;

2. Implementation of innovative methods and methodic of teaching and training;

3. New approaches for the government support of talented and gifted school and university youth;

4. Mentoring development, raising the prestige of scientists, pedagogues, specialists which care for problems of search, development and support of gifted young researchers;

5. Approximation the research and experimental directions of extracurricular education to the place of students residence, especially students from remote districts and rural area;

6. Improving professional skills, pedagogues competence within the MASU system.

A personal approach to every student is carried differentiated (in accordance to the age, personal opportunities, interests, skills, state of health) and provided by the MASU educational and training process. It's being implemented in the three directions: propaedeutical (a detection of children and school youth needs and interests in different scientific fields, a familiarization with the introductory course in the chosen scientific field); educational and developmental (creating the conditions for satisfying individual social and cultural needs of school students, which want to be engaged in science); professional oriented (a prolonged scientific and methodical, psychological, pedagogical, practice-oriented maintenance for all levels of study; it's finished by definition of the student future profession).

Requirements for organization of the MASU educational and training activities, that determines its specifics and safe its uniqueness, are the following ones: continuity of the educational and training process; development of different forms and methods of school students stimulation for scientific and research activity; use of interactive methods (for example method of join creative activity, that provides the variation in application of knowledge and transfers them to the new unusual situations).

The Presidium is the supreme governing body of MASU. It's consists of the leading scientists of the National Academy of Sciences of Ukraine (NASU), representatives of specialized academies and higher educational institutions of Ukraine. The members of the Presidium are involved actively in the coordination process of scientific and research activity of the MASU students, also they are advisors of scientific

departments and take part in the educational events. MASU educational and training process is structured due to scientific directions, departments and sections. There are departments of Physics and Math, Engineering, Natural and Social Sciences in the MASU structure. Besides this, during the MASU studying process the school students can satisfy their own needs. It's talking about the following students needs: creative needs (broadening the outlook on science, education, culture and art); cognitive needs (deepening knowledge and skills from different disciplines); communicative needs (communication with peers, pedagogues, scientists); leisure needs (spending free time with like-minded people, participation in scientific workshops, camps, tours etc.). Each scientific department consists of the scientific sections, and the titles and scientific directions of which are defined and approved by the Presidium of MASU. Scientific advisors are the academicians of NASU and the members of the Presidium of MASU. The MASU students are conducted scientific researches in 64 sections of 12 scientific departments such as Literature studies, Folklore and Art; Philology; Philosophy and Social Studies; History; Economy; Engineering; Computer Sciences; Mathematics; Physics and Astronomy; Earth Sciences; Chemistry and Biology; Ecology and Agrarian Sciences.

In 2014-2015 academic year, the regional structure of MASU consisted of 14 Regional (Territorial) Minor Academies of Sciences of School Youth of Ukraine and 18 basic educational institutions of MASU, approved by the appropriate education authorities. The local (city) departments worked as distinct legal entities, affiliates of Regional (Territorial) Minor Academies of Sciences of School Youth of Ukraine, or as the departments of educational institutions at regional and local levels.

Annually, more and more gifted and talented Ukrainian children involved in the scientific search. In 2014-2015 academic year, their total number was more than 130 thousand people. The branched propaedeutical activity of the National Center "Minor Academy of Sciences of Ukraine" and its regional departments gave the opportunity to carry out the scientific and research activity for the children of the pre-school, primary and secondary school age. That's why, the total number of the MASU students, including the participants of the massive events, was more than 250 thousand people in 2014-2015 academic year.

Scientific and pedagogical staff provides the high quality and effectiveness of educational services in the system of MASU institutions. They direct their efforts at training the motivated, professionally oriented intelligent young people who want to realize their scientific potential in the future professional activity.

Over 6,5 thousand of the scientific and pedagogical staff work with young scientists in the extracurricular education, scientific and research institutions. There are 1,5 thousand masters of sciences and 300 PhDs among them.

There are various organizational forms of educational process in MASU such as

lesson, work in group, study, lection, personal lesson, quiz game, conference, competition, scientific tour, excursion, workshops in laboratories and greenhouses, research and scientific activities on lands plots, agricultural and industrial areas and also outdoors activity. These forms are being implemented differentially in accordance with personal opportunities, students interests and skills. Such diversity of work forms, that includes individual characteristics of school student, gives the opportunity to maximize the implementation of personality-oriented approach to school students based on the leading concepts of humanizing education, that helps school student to realize own opportunities and needs, observe and open own "I", develop the ability to act independently, strive to creativity, spiritual development of personal potential and learning, and also it provides maximum freedom of choice [1].

The priority of productive, active-creative methods and forms of problem-practical nature provides the development of independent activities of the MASU students. Also it gives to the school students some knowledge and the experience of obtaining and using them in practical and daily life activities. Thus, it takes into account the direction of school students creative activity, thematic of their researches and experimental works. That's why, the educational and training process of MASU creates the conditions for making an independent choice and obtaining new and more knowledge, skills. Studying and training at MASU should be the first important step in great science for the school students.

At the current stage, the MASU educational system is actively developing and improving, and it continues the best traditions of previous decades. The origins of its formation on the territory of Ukraine reached the 20s of the XX century when the network of extracurricular educational institutions for children and youth were established. Since that time, MASU has passed the difficult way of reorganizations, improvements and reflows.

Despite the difficult times that Ukraine is experiencing, MASU always feels the support from our government. Its activity is regulated by the numerous normative acts, due to them Minor Academy of Sciences of Ukraine is an educational institution with general state functions of searching, supporting and creative development of gifted and talented children, interested in science.

Minor Academy of Sciences of Ukraine as a part of extracurricular education responds to challenges of time, social and state requests. Annually, the NC MASU holds approximately 30 mass events with including different international, the All-Ukrainian and regional scientific conferences, competitions, seminars and presentations.

The author notices the main conditions that create an educational space for formation of scientific generation: involving wide range of school students into scientific and research activity, activation of correspondence and summer profile schools for gifted children, realization of the numerous educational projects aimed at disclosure

of the intellectual potential of younger generation. The MASU active work promotes the socialization, self-realization, self-knowledge, social and cultural identity of the student. Intellectual environment, an opportunity to speak with leading Ukrainian scientists, pedagogues, and peers help the young scientist to find his own life and professional way and also take a responsible public position [2].

There is a one example of the MASU activity. The All-Ukrainian distance learning profile schools of MASU are very popular among young generation, because they provide the participation in social and cultural events, and assistance in the further career choice. Realization of educational project “The All-Ukrainian distance profile schools of Minor academy of sciences of Ukraine” established in 2007. Right now it provides the cooperation between MASU and NASU institutions, leading higher educational institutions, and the creation special educational platform on their scientific and research objects. Purpose of the project is an inclusion of gifted and talented children from different regions of Ukraine to the powerful intellectual and information space of leading higher educational institutions due to them gifted students could be involved in the high quality education and receive the experience in conducting the scientific experiments.

In 2011-2012 academic year, it was implemented the following profiles of distance learning schools into the educational and training system for satisfying the children scientific interests:

- physical and technological (section “Physics and Astronomy” and “Technical Sciences”);
- mathematical;
- chemical and biological;
- linguistic;
- informational and telecommunication technologies, etc.

A special place in the MASU activity is given to the international partnership. The international contacts allow the MASU students to take part in different international events, demonstrate the high level of achieved knowledge and skills. So, for example, three young scientists from Ukraine were the prizewinners at the XIX International Conference of Young Scientists «ICYS–2012» (Nijmegen, the Netherlands).

The other example of effective cooperation at international level is an educational project “The Ukrainian-German university for children”, established in 2010. Its main purpose is a development of international cooperation on organization of scientific and research activity for gifted and talented children, involving gifted school youth into conducting scientific researches in different fields of Natural and Technical Sciences together with the leading Ukrainian and German scientists. Great achievement of the MASU international activity has signing the Joint declaration between Minor Academy of Sciences of Ukraine and the European organization for nuclear

research (CERN), according to its provisions scientific advisors to the scientific projects of MASU students could participate in the powerful educational activity, national programs on High Energy Physics and Elementary Particle Physics. Also the cooperation between the National Center “Minor Academy of Sciences of Ukraine” and the Joint Institute for Nuclear Research is equally important, because teachers of Physics from different region of Ukraine received the opportunity to be participants of the Scientific school on Physics, held in Dubna, in 2011 (Moscow region, Russia) and acquainted with one of the most powerful scientific center, that conducts fundamental and applied researches in the field of High Energy Physics, Condensed Matter Physics and Radiobiology. One of the directions of the MASU international activity is the cooperation with the Center for Dissemination of Scientific, Technical and Industrial Culture (Orleans, France). Beside this, the other direction of the MASU international activity is a fruitful cooperation with the leading European laboratories, that provides an opportunity for the MASU students to participate in their scientific activity [2].

Minor Academy of Sciences of Ukraine created a unique complex of nature studies “Laboratory MANlab” ([www.manlab.inhost.com.ua](http://www.manlab.inhost.com.ua)) in order to form an interactive and available educational environment. The main purpose is to provide the conditions for preparation of school students to conducting independent researches with further involving them into scientific societies of Regional (Territorial) Minor Academies of School Youth of Ukraine. One of the main tasks of this project is to provide distance access to educational and research papers in due to increase the audience of educational activity in the frame of MASU. Such environment is intended to meet the school student needs for research activity, with use of distance learning technologies based on voluntary participation in a suitable time for each student. There is an opportunity to order and conduct an experiments at laboratory MANlab on-line and then receive results. Also it is implemented the opportunity to watch for conducting an experiment and distance access for particular management of it. Laboratory assistants conduct regular methodic conferences, distance learning profile schools, trainings and organize presentations of own activity in different scientific events of Ukraine and whole world.

It were created cognitive television projects «Intelekt.ua» and «Intelekt-TV», the internet project “Regional web-sites of Minor Academy of Sciences of Ukraine” in order to popularize the activity of Minor Academy of Sciences of Ukraine, involving the largest possible number of gifted and talented children into scientific and research activities and broadening the relevant information space of MASU.

Young scientists have an opportunity to present their results of creative activities on annual three-staged the All-Ukrainian competition defense of the MASU students scientific researches. It’s the biggest event of MASU aimed at stimulating the school youth interests to creative search, creating the conditions for formation of their

scientific outlook and mastering the methods of cognitive activity. The juries of such competition are the leading scientists, scientific and educational staff of Ukraine. Their professional competence, rich experience, objectivity and benevolence create the atmosphere of real intellectual competition.

The prizewinners receive privileges for entry to the higher educational institutions and scholarship of the President of Ukraine.

At the final stage of competition, web-cameras provide on-line translation of the students projections. And the visitors receive open access for the defense process of students project. Beside this, the quotient-criteria model is used for ensuring the objective evaluation of students knowledge. That's why, the influence of subjective factors on determining the results of competition is minimized and impossible to falsify them. The NC MASU designed a complex program for analysis of results and difficulties of competition. This program allows to consider the gained experience in the further improvement of its organization.

In recent years, the All-Ukrainian lectures, scientific readings, tele-conferences have become very popular, especially among high school students, pedagogues and leading scientists. The All-Ukrainian lectures are hold on the most actual issues on nuclear physics, nanotechnologies, astronomy, preservation of ecology etc. Lecture is holding in interesting way and available form for each student. Everybody interested can express own opinion, ask question and discuss with famous scientists. Above mentioned promotes a formation of school students integral scientific world and the modern outlook, an increasing the motivation to knowledge and creativeness, and gives an opportunity to affirm own views and beliefs.

Accordingly, it was created a dynamic educational and training space on the basis of the MASU educational institutions, scientific institutions etc. Right now it provides continuity of educational process for support gifted and talented children. MASU educational and training process gives school students the experience in detection of own "I", teaches to adequate methods of self-expression and encouraged to the self-affirmation. That's why, one of the MASU tasks is a training the individual self-affirmation as the preconditions for future professional and personal fulfillment. Self-affirmation is connected with desire to identify yourselves, establish their individuality, discovering its possibilities. Professional activity becomes as the space for realization of human talents and knowledge. Searching the spheres of own affirmation is a positive evidence of self-identity. However, the professional activity can be successful only in fact of maximum concentration of the individual essential powers. It means that person should prepare yourselves for a permanent and long work within a certain profession. Only in this case, she will achieve a professional self-affirmation, and, consequently, a professional fulfillment.

## REFERENCES

1. Bekh I.D., *Personally oriented education. scientific methodical manual. Kyiv. Institute of content and teaching methods, 1998, 204 (in Eng).*
2. Kovbasenko L.I., Lykhota I.M., *Conceptual foundations and development of Minor Academy of Sciences of Ukraine. In. O.V. Lisovyi, Kyiv. LLC. Pedahohika 2012, 84 (in Eng).*

ӘОЖ378.4 (574)

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ЖОҒАРЫ ОҚУ ОРЫНЫНДА ОҚУ ПРОЦЕСІНДЕ  
ЭМПАТИЯНЫҢ АЛАТЫН ОРНЫ

Болашақ педагог-психолог даярлау жүйесінде эмпатияны қалыптастыру мәселесі ерекше орын алады. Осы мақсатпен мақалада жоғары оқу орындарының оқу процесінде болашақ педагог-психолог мамандарының даярлау кезінде эмпатияның алатын орны және болашақ мамандардың тұлға ретінде қалыптасуындағы рөлі туралы сөз болады.

**Түйін сөздер:** білім беру, жоғары оқу орны, студент, тұлға, эмпатия.

МЕСТО ЭМПАТИИ В УЧЕБНОМ ПРОЦЕССЕ ВЫСШЕГО  
УЧЕБНОГО ЗАВЕДЕНИЯ

В системе подготовки будущих педагогов-психологов особое место занимает проблема формирования эмпатии. С этой целью в статье рассматривается место эмпатии в учебном процессе при подготовке будущих педагогов-психологов, ее роль в формировании личности будущих специалистов.

**Ключевые слова:** образование, высшее учебное заведение, студент, личность, эмпатия.

THE PLACE OF EMPATHY IN EDUCATIONAL PROCESS IN THE HIGHER  
EDUCATIONAL INSTITUTION

In system of training of future educational psychologists a specific place is held by a problem of formation of empathy. In article the place of empathy in educational process when training future educational psychologists is considered.

**Keywords:** education, higher educational institution, student, personality, empathy, empathy.

Болашақ педагог-психолог мамандардың тұлғалық дамуы және болашақ кәсіби іс-әрекетке дайындығын қалыптастыру мәселесі қазіргі жоғары оқу орындарының жұмысын кемелдендірудің теориясы мен практикасында өте маңызды болып табылады. Мұның себебі, жоғары оқу орнында оқу мерзімімен