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## The concept of self-education and its part in training future specialists

This article considers one of the main practical tasks of pedagogical science of the Republic of Kazakhstan at the present stage and the problems of formation of the creative person, disclosure of natural potential, also formation and creations of conditions for her realization. Authors showed ways of comprehensive training of experts and development of creative thinking of students by means of their activization through independent work. In the course of the research of the specified subject authors used the modern pedagogical technologies directed to activization and improvement of activity of students in independent education. Proceeding from it, the organization by management of independent training of students is based on the checked by authors, technological approach. And therefore it is very necessary to develop production in the conditions of present realities. Problems of statement of tasks in receiving systematic education are allocated. Authors made decisions if education serves ensuring the general development of future expert, then the purpose of independent education is formation of professionalism and increase in his skill. Therefore, certainly, in the course of study, it is necessary to direct students to receiving independent education correctly.

*Keywords:* pedagogics, psychology, visual art, creative thinking, self-education, drawings, methods of teaching, conceptual model, complex process, future specialists.

### Introduction

Nowadays the great importance in system of training future specialists of pedagogical profile characterizes through the skills of self-education. This is due to the modernization of the content and structure of graphic education, and it requires the formation of spatial imagination and computer skills needed in a creative process.

Importance and relevance of improvement the efficiency of self-education in the higher education system is the foundation to develop the new ways of extracurricular independent work on the course «Descriptive Geometry» and «Drawing» which shapes professional competence of students in the future professional activity.

The aim of our research is to develop ways, methods and techniques of improving the efficiency of self-education which can develop spatial imagination and creativity of students and which could prepare a new type of initiative, creative professionals who are able to independently acquire information in graphic and fine art [1].

One of the pedagogical conditions of perfection graphic preparation of future teachers, in particular, the formation of their independent creative thinking, spatial imagination and polytechnic thinking to develop the content of extracurricular self-study and technology of its organization and management on the course «Descriptive Geometry».

Training future teachers in high schools to read and execute drawings is one of the main problems of modern higher education. Reading and executing the drawings, of course, must be focused, creative and responsible work. However, it should be noted in that the learning process of students in pedagogical literature is characterized as training and self-studying as well [2].

Based on the above mentioned points, objective necessity of teaching students self-education can be stated as shaping the skills of independent graphic activity, as well as not matching the actual state of training activities and the implementation of the internal capabilities of independent work on a variety of content, methods and results. It can be determined by monotonous (one-sided) approach to the peculiarities of students' activities in self-education, its essence, principles of organization, content and methods.

Collected and analyzed information led to the following conclusions:

*Students:*

- are not interested in (motivated to) self-education;
- slowly assimilate knowledge and ready studying materials transmitted to them;
- weakly master skills and abilities of self-educational activities in the classroom;
- perfunctorily learn study materials from textbooks and take notes of a teacher (explanations, stories, lectures);

– are not able to use enough the additional sources of knowledge (didactic literature needed for constant creative training courses and the special role of knowledge, targeted communication with people, and others.);

- learn reproductive knowledge;
- are passive in showing educational motives.

*Teachers:*

– do not use the possibilities of the discipline, its methods of teaching in order to form students' self-conscious attitude to education and the pursuit of active learning activities;

– do not comply with the principle of visual aids, they prefer oral teaching methods based on ready study materials provided in the curriculum;

– do not effectively use the opportunities of extracurricular independent work allowing the development of cognitive interest of students, deepen their knowledge, enrich the spiritual world and formation of high moral qualities;

– do not have the organizational skills and abilities self-educational activity;

– do not systematically carry out their pedagogical leadership on self-educational activity of students, they are often limited by giving tasks, checking up and evaluating of their performance.

Research materials collected during long-term observations and studies show that students can carry out an active and independent learning activities, aimed at finding and assimilation of new knowledge on the subject, and increase the quality of their knowledge. This is evidenced by the following bases:

– *Physiological root of a character:* types of temperament, heredity, early childhood development of a particular region;

– *The root of the mental character:* interest and inclination, state of mind, active and directed emotions;

– *The basis of a public nature:* the growth of self-consciousness, the democratization of the society, ethnopsychological features of the region, the development of social and technical base, the development of culture, etc .

These fundamentals suggest a potential student's readiness for active self-learning activities. However, these bases requires specific factors to have been used successfully.

They are divided into 4 types:

• factors which are evidence-based recommendations, proposed by scientists specialized didactic materials research;

• factors generated by teachers' activity;

• factors created by parents of students;

• factors emanated by the individual characteristics of students.

During the research, we developed a conceptual model of self-education of students (Fig.).

It contains the following.

#### 1. *The essence of self-education and its functions.*

Self-education is a purposeful learning activity which consists mastering a given information by a teacher, consolidating knowledge and skills learned from during study process [3]. The process of self-education provides wide types of opportunities to perform a number of functions: educational, developmental, educational, vocational guidance.

Activities of students on self-education is carried out in three main areas:

– During the training sessions organized by a teachers (in the process of making small independent assignments during lectures and practical classes);

– The various forms of independent work (carrying out different creative tasks, entertaining graphic works, course work (projects), klauzur, essays, reports, etc.);

– Doing homework in an information and resource center (library).

#### 2. *The structure of students' self-education.*

The main elements of students' activities in self-education:

– perception of individual objects and phenomenas;

– consciousness and creative activity;

– systematic, consistency and continuity;

– continuous improvement of the level of complexity of the work and difficulties;

– reliance on previously acquired knowledge;

– integration of knowledge and skills with related disciplines (coordination);

– being interested in supplement and enriching knowledge;

- high demands on the results of study;
- studying approach to the assimilation of new knowledge;
- conscious organization of students' activities in self-education;
- emotionality and excitement of all kinds of self-education.

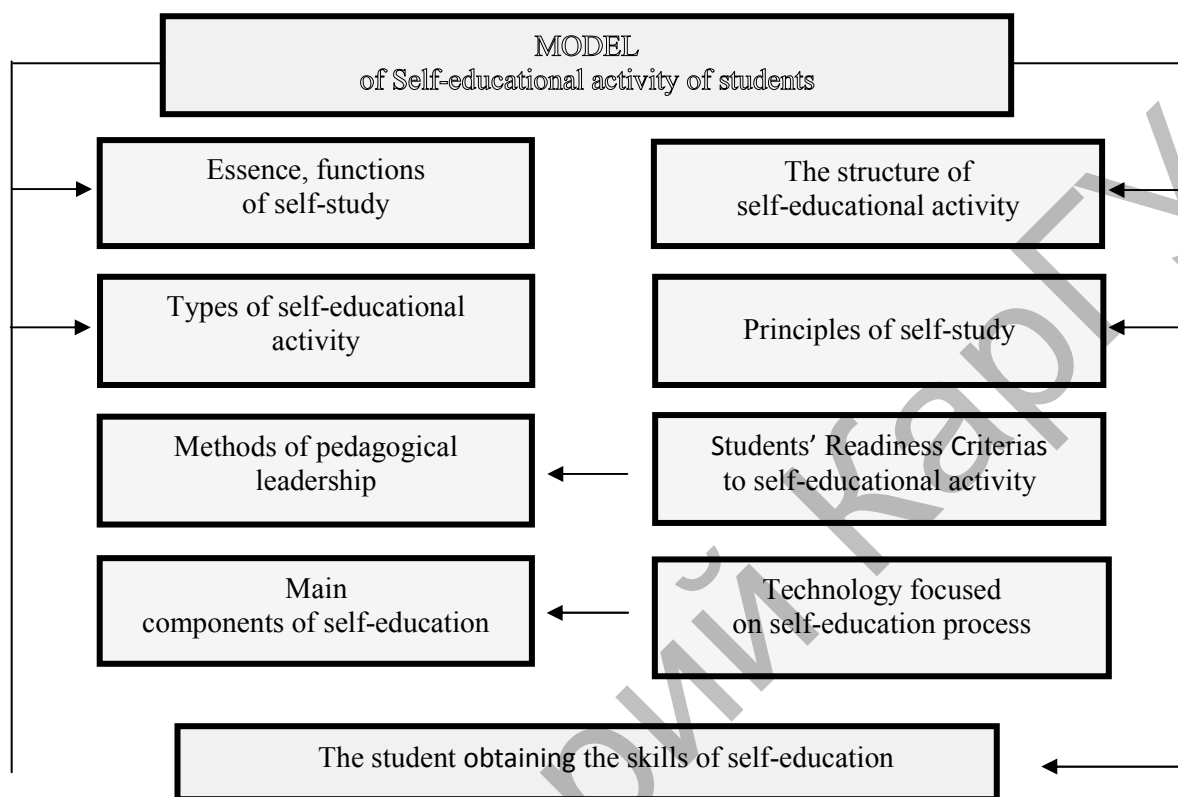


Figure. Conceptual model of students' self-education

### 3. Students' self-education activities:

- strengthening the scientific information provided by a teacher in the classroom;
- developing of scientific information on the studied subject through using additional educational and methodical literature;
- performing tasks for self-fulfillment;
- self-studying activities for students might be individual or collective. It depends on the objectives and planned results of the tasks.

### 4. Principles of organization self-education activities for students:

- inner desire to learn, memorize new knowledge;
- consciousness and creative activity;
- systematic, consistency and continuity;
- continuous improvement of the level of complexity of the work and difficulties;
- reliance on previously acquired knowledge;
- integration of knowledge and skills with related disciplines (coordination);
- being interested in supplement and enriching knowledge;
- high demands on the results of study;
- studying approach to the assimilation of new knowledge;
- conscious organization of students' activities in self-education;
- emotionality and excitement of all kinds of self-education.

### 5. Methods of teaching management on students' self-education activities:

- 1) Methods of determining the features of students' self-education activity, its opportunities and types: independent tasks, checking up the results, the defense of individual work and etc.
- 2) Methods of forming practical skills and abilities on students' self-education: performing independent work, practical exercises, making drawings and diagrams.

3) Methods of monitoring and evaluation of students' self-education results: observation, interview, verification of results, evaluation, testing, defense and etc.

6. *Student's readiness criterias to self-education:*

1) Students' psychological readiness criteria to self-education:

- type of activity of the higher nervous system, a state of psychological processes;
- cognitive interests, abilities and needs;
- training motivation, awareness of its necessity.

2) The criteria of determining the level of theoretical knowledge required for the students' self-education activities:

- understanding the role of knowledge in human life, necessity of constant enriching the knowledge;
- awareness of the right place of business according to self-education;
- Knowledge of the characteristics of self-education activities, its features, types and methods.

3) The criteria of determining the practical skills needed for students' to self-study activities:

- defining the tasks of self-study, choosing their types and methods of implementation;
- the independent work plan, the design of the results;
- providing space and all the necessary tools for self-study;
- the choice of active methods to work and its creative application;
- Self-test, self-correction, making amendments;
- using advices and guidance of teachers;
- using of knowledge from various disciplines while working on a specific subject, reading scientific literature;

– observation of the organization of advanced students' self-education results at the university, choosing the main, the most important for creative using [4].

7. *The main components of students' self-education:*

- Defining the objects of self-education, awareness of its essence, understanding its necessity;
- Designing of the expected results;
- Work planning;
- Preparation of the workplace and the necessary training tools;
- Management of actions directed at achieving aims;
- Self-control and self-esteem;
- Summary of acquired knowledge, self-formulation of conclusions;

The main criteria of students self-education activities are the educational motives, which push students to be active.

8. *Pedagogical management of students' self-education, management technology o organization:*

Pedagogical leadership of students' self-education is a prerequisite for its improvement. The effectiveness of a pedagogical management depends on several factors such as personality and authority of a teacher. Methodology of pedagogical management determined by the following requirements to the teacher:

- awareness of the individual characteristics of the students;
- graphic skills and abilities of each student;
- awareness and assessment of the level of students' development.

– Thus, the students' self-education activities are the complex process and it is more effective in the case of using an independent approach by students to study the synthesis and analysis of objects and phenomena with the required level of interest.

– Organization techniques and management activities occupy an important place in the study on developing a model of future specialists' self-education activity on pedagogical profile.

These whole graphical activities in the classroom are based on ideas, not on real visual images and operating mechanisms. The investigated results of are superimposed on the image of the existing object, phenomena or process, a comparative analysis is in process, which requires students to have well-developed spatial thinking. Thus, with self-determination of students, it is necessary to take into account the mastery of their respective knowledge and skills, their dynamic spatial images, as designer's comes based on the application of a variety of conventional visibility (graphic images).

We pay the greatest attention to the influence of various sign systems on the formation of human thinking in design studies. The ability to operate and reveal spatial images can determine the success of students' engineering graphics, where performance in graphics is independent. Students develop stable interest-

orientation and tendency towards design as their abilities are fully implemented in a classroom. Many researchers observe the relationship between the high level of development of students' spatial thinking and their persistent inclination to the corresponding specialties (G.K. Selevko, M.F. Shklyar, E. Kapiev, E.N. Kabanova-Meller et al. [4-8]). Therefore, a successful mastery of various types of graphics largely relies on the formation of spatial thinking of future designers. This is due to the process, when an individual constantly creates spatial images, operates and transcodes them. The development of spatial thinking is closely interrelated with the readiness for professional self-determination, which we practice in the process of teaching «Graphics» and «Drawing». A practice shows that students after their college education have an accurate idea of their faculty choice. Many of them choose professional-creative faculty. In this case, the Lyceum of the Aktyubinsk Regional State University after the name of K. Zhubanov is one of the links in a continuous art education of students. Meanwhile, it also acts as a transitional and connecting link between secondary and higher education.

### Conclusions

Modules are connected with number of factors (educational material, number of registered students, the aim, forms, methods and content of education). The number of modules can be enlarged or lessened because of these factors. Modules are usually united in accordance with separate departments of academic year.

Basic characteristics of modules are:

- self-support – a module as a structural unit has its own content of education which differs from others;
- time is limited to realize the aim and tasks of a module;
- dynamism- possibility of changing the content of a module in accordance with aims and tasks of self-education;
- Components of a module - differentiation and integration of structural components. Their realization of practical tasks;
- interdependence and interrelation of components of a module; each of which is bound to the place in the structure of a module;
- efficiency of self –work material being comparatively small;
- possibility of students' self-assessment of his cognitive activity;
- integrity, necessity of complex structured components, identifying the function of a module;
- a module can be presented in any form: written, recorded, computer software etc.

Technology of self-education material development is based on the gradual introduction of all components of module material.

From the perspective of holistic visual creativity is understood as a quality of an individual, formed in the process of education, training and development. It is a combination of creative skills, interests and emotionally stable aspirations for creative activities combined with personal experience, ensuring the successful implementation of a given activity. The level of the graphic competence increases as the progressive development of the individual, exerting a strong influence on the quality of professional activities, self-development of personality. Pedagogical patterns of development of fine arts, didactic conditions of its implementation and the relationship with the training are identified on the basis of personality active approach to learning.

### References

- 1 Выготский Л.С. Психология искусства / Л.С. Выготский. — М.: Азбука, 2016. — 448 с.
- 2 Вьюжек Т. Логические игры, тесты, упражнения (пер. с англ.). Память, внимание, интеллект / Т.Вьюжек. — М.: Эксмо-пресс, 2002. — 295 с.
- 3 Тэмон Д. Аэробика для ума (пер. с англ.) / Д.Тэмон, А.Брэгдон. — М.: Эксмо, 2002. — 397.
- 4 Шкляр М.Ф. Основы научных исследований: учеб. пособие / М.Ф. Шкляр. — М.: Издат.-торговая корпорация «Дашков и К», 2010. — 244 с.
- 5 Сагимбаев А.А. Обучение рисунку: учеб. пособие / А.А. Сагимбаев. — Алматы: АГУ им. Абая, 2003. — 92 с.
- 6 Селевко Г.К. Реализуй себя / Г.К. Селевко. — М.: Народное образование, 2006. — 112 с.
- 7 Капьев Е. Саморазвитие / Е.Капьев и др. — М.: Эксмо, 2015. — 128 с.
- 8 Соколов В.И. Педагогическая эвристика: Введение в теорию и методику эвристической деятельности: учеб. пособие для студ. высш. учеб. заведений / В.И. Соколов. — М.: Аспект Пресс, 1995. — 255 с.

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## Болашақ мамандарды дайындаудағы өзіндік білім алудың тұжырымдамасы және оның рөлі

Мақалада тәжірибелік міндеттерді шешумен қатар, Қазақстан Республикасы педагогикалық ғылымның қазіргі кезеңдегі басты міндеттері тұлғаның шығармашылық қабілетін ашу, оны қалыптастыру, табиғи әлеуетін арттыру үшін жағдай жасау және оны іске асыру жағдайлары қарастырылды. Авторлар болашақ мамандарды оқыту барысында олардың шығармашылық ойын дамыту, белсенділігін арттыру және олардың өз бетінше жұмыстарын жан-жақты ұйымдастырудың жолдарын айқындайды. Зерттеу барысында авторлар қолданылған заманауи педагогикалық технологияларды пайдаланып, студенттердің өз бетінше білім алуын жандандыруға бағыттау және жетілдіру жолдарын қарастырды. Осыған байланысты, студенттердің өзіндік жұмысын ұйымдастырумен қатар, оларға бағыт-бағдар беру, өзін-өзі зерттеу, авторлардың дәлелденген, технологиялық әдіснамасына негізделіп отыр. Сондықтан өндірісті дамыту қазіргі жағдаяттарға және бүгінгі күн талаптарына сай болуы керек. Көрсетіліп, отырған мәселелер бойынша талаптарды қоя білудің өзі, жүйелі білім беру болып саналады. Авторлардың жасап отырған тұжырымдамалары бойынша, егер білім алу болашақ маманның жалпы дамуына септігін тигізетін болса, өзіндік білім алудың мақсаты олардың кәсіби біліктіліктерін арттыру және олардың шеберлігі қалыптастыру болып табылады. Сондықтан оқыту үрдісінде студенттерді өзіндік білім алуға дұрыс бағыттау қажет.

*Кілт сөздер:* педагогика, психология, шығармашылық ойлау, оқыту үрдісі, пәнаралық байланыс, өзіндік білім алу, сурет, оқыту әдістемесі, тұжырымдамалық моделі, кешенді үрдіс, болашақ маман.

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## Концепция самообразования и его роль в подготовке будущих специалистов

В статье рассматривается одна из главных практических задач педагогической науки Республики Казахстан на современном этапе — задача формирования творческой личности, раскрытие природного потенциала, формирование и создания условий для ее реализации. Авторами показаны пути всестороннего обучения специалистов и развития творческого мышления студентов с помощью активизации их через самостоятельную работу. В процессе исследования указанной темы авторами были использованы современные педагогические технологии, направленные на активизацию и совершенствование деятельности студентов в самостоятельном образовании. Исходя из этого организация управлением самостоятельного обучения студентов основывается на проверенном авторами, технологическом подходе. И поэтому необходимо развивать производство в условиях нынешних реалий. Выделены проблемы постановки задач в получении систематического образования. Авторами сделаны выводы — если получение образования служит обеспечению общего развития будущего специалиста, то целью самостоятельного образования является формирование профессионализма и повышение мастерства. Поэтому, безусловно, в процессе учёбы нужно правильно направлять студентов на получение самостоятельного образования.

*Ключевые слова:* педагогика, психология, творческое мышление, процесс обучения, самообразование, рисунок, методика обучения, концептуальная модель, комплексный процесс, будущий специалист.

## References

- 1 Vygotskii, L.S. (2016). *Psikholohiia iskusstva [Psychology of art]*. Moscow: Azbuka [in Russian].
- 2 Viuzhek, T. (2002). *Lohicheskie ihry, testy, uprazhneniia. Pamiat, vnimanie, intellekt [Puzzle games, tests, exercises. Memory, attention, intelligence]*. Moscow: Eksmo press [in Russian].
- 3 Temon, D., & Bregdon, A. (2002). *Aerobika dlia uma [Aerobics for the mind]*. Moscow: Eksmo [in Russian].
- 4 Shkliar, M.F. (2010). *Osnovy nauchnykh issledovaniia [Fundamentals of scientific research. Study guide]*. Moscow: Izdatel'sko-torhovaia korporatsiia «Dashkov i K» [in Russian].
- 5 Sagimbaev, A.A. (2003). *Obuchenie risunku [Education pattern]*. Almaty: Kazakhskii natsionalnyi pedahohicheskii universitet imeni Abaia [in Russian].
- 6 Celevko, G.K. (2006). *Realizui sebia [Your realise potential]*. Moscow: Narodnoe obrazovanie [in Russian].
- 7 Kapev, E., & et al. (2015). *Samorazvitie [Self - development]*. Moscow: Eksmo [in Russian].
- 8 Sokolov, V.I. (1995). *Pedahohicheskaiia evristika: vvedenie v teoriuu i metodiku evristicheskoi deiatelnosti [Pedagogical heuristic: Introduction to the theory and methodology of heuristic activity]*. Moscow: Aspekt Press [in Russian].