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CORRELATION BETWEEN SELF-ASSESSMENT AND SELF-CONFIDENCE OF STUDENTS OF TECHNICAL INSTITUTIONS OF HIGHER EDUCATION AND METHODS OF THEIR ACTIVATION

Abstract. the essence of the definitions of "self-assessment" and "self-confidence" of the individual and their correlation is considered. The sources of self-assessment formation are indicated. The generalized conclusion of scientists is given, the essence of which is that the success, as well as the failure of a student of a technical institution of higher education is the result of high or low self-assessment. According to the results of the research, the urgency of the problem of forming an adequate self-assessment and increasing students' self-confidence in the process of studying at TIHE is emphasized. The mechanisms of their activation are revealed, namely, self-knowledge, self-control, self-regulation and self-programming. Special attention is paid to the role of innovative technologies: creating situations of success in the learning process and training. The key components of the method of behaviour rehearsal are considered, which are modelling, instruction and reinforcement

Key words: self-assessment, self-confidence, success, formation, activation, research.

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ВЗАЄМОЗВЯЗОК САМООЦІНКИ І ВПЕВНЕНОСТІ У СОБІ СТУДЕНТІВ ТЕХНІЧНИХ ЗВО ТА СПОСОБИ ЇХ АКТИВІЗАЦІЇ

Анотація: розглянуто сутність визначень "самооцінка" та "впевненість у собі" особистості та їх співвідношення. Вказано джерела формування самооцінки. Наведено узагальнений висновок вчених, суть якого полягає в тому, що успіх, а також невдача студента технічного закладу вищої освіти є результатом високої або низької самооцінки. За результатами дослідження підкреслюється актуальність проблеми формування адекватної самооцінки та підвищення впевненості студентів у процесі навчання у ТІНЕ. Розкриваються механізми їх активації, а саме самопізнання, самоконтроль, саморегуляція та самопрограмування. Особлива увага приділяється ролі інноваційних технологій: створення ситуацій успіху в процесі навчання та навчання. Розглянуто ключові компоненти методу репетиції поведінки, які є моделюванням, інструктажем та підкріпленням

Ключові слова: самооцінка, впевненість у собі, успіх, формування, активація, дослідження.

Александр Романовський, Татьяна Гура, Валентина Михайличенко

ВЗАИМОСВЯЗЬ САМООЦЕНКИ И УВЕРЕННОСТИ В СЕБЕ СТУДЕНТОВ ТЕХНИЧЕСКИХ ЗВО И СПОСОБЫ ИХ АКТИВИЗАЦИИ

Аннотация: рассмотрены сущность определений "самооценка" и "уверенность в себе" личности и их соотношение. Указаны источники формирования самооценки. Приведены обобщенный вывод ученых, суть которого заключается в том, что успех, а также неудача студента технического учреждения высшего образования является результатом высокой или низкой самооценки. По результатам исследования подчеркивается актуальность проблемы формирования адекватной самооценки и уверенности студентов в процессе обучения в ТІНЕ. Раскрываются механизмы их самоконтроль, активации, a именно самопознание, саморегуляция самопрограммирования. Особое внимание уделяется роли инновационных технологий: создание ситуаций успеха в процессе обучения и учения. Рассмотрены ключевые компоненты метода репетиции поведения, которые являются моделированием, инструктажем и подкреплением

Ключевые слова: самооценка, уверенность в себе, успех, формирования, активация, исследования.

Олександр Романовський, Татьяна Гура, Валентина Михайличенко

Розширена анотація для ознайомлення з цією темою: "Взаємозв'язок самооцінки і впевненості у собі студентів технічних ЗВО та способи їх активізації"

Методологічною основою формування самооцінки ϵ позиція гуманістичної педагогіки, яка розглядає все внутрішнє життя студента залежним від його самооцінки. При всій різноманітності наукових підходів до вивчення цієї проблеми всіх їх об'єднує узагальнений висновок, суть якого полягає в тому, що успішність, як і неуспішність людини ϵ значною мірою результатом високої або низької її самооцінки. В зв'язку з цим метою статті ϵ виявлення формуючих факторів, які сприяють активізації адекватної позитивної самооцінки студентів, підвищенню впевненості у собі, їхньої успішності. Розглянуто сутність понять "самооцінка" та фактори, які є суттєвими для її розуміння, зокрема:

- оцінка іншими людьми;
- думка референтної групи;
- актуальне порівняння з іншими;
- порівняння реального та ідеального Я;
- результати своєї діяльності.

В статті розкрито зміст адекватної та неадекватної самооцінки студентів. Показаний взаємозв'язок самооцінки та впевненості у собі, наявність якого є першою умовою успішності особистості студента. Наведені результати дослідження, які свідчать, що більшість студентів мають неадекватну (40%) і низьку самооцінку (9,2 %). Високий рівень впевненості в собі мають 25 % студентів, з яких 65,8 % мають середню та 9,2% низьку самооцінку. Це про необхідність активізації адекватної самооцінки та впевненості у собі, які взаємообумовлюють одна одну.

Авторами наведені фактори, які впливають позитивно на цей процес. Велику роль в ньому відіграють самопізнання та рефлексія, які є основою розвитку постійного самоконтролю і саморегуляції особистості.

Підсумковим продуктом формування самосвідомості є динамічна система уявлень людини про саму себе, яка позв'язана з її оцінкою, що має назву у психологічній літературі під терміном "Я-концепція". Вона відіграє велику роль у формуванні переконання у своїй самоефективності та є основою самопрограмування та самовиховання.

Результати досліджень свідчать, що в процесі навчання та виховання студентів питанням активізації самопізнання особистості та формуючої ролі образу самого себе приділялось недостатью уваги, що має негативний вплив на їхню адекватну самооцінку та впевненість у собі.

Авторами акцентована увага на наступних прийомах та способах активізації адекватної самооцінки та впевненості в собі в процесі навчання: формування Я-концепції, яку необхідно використовувати для саморозвитку та самоудосконалення; створення ситуацій успіху в процесі навчання, участь студентів в іноваційних тренінгах, складання портфоліо тощо. Для цього запропоновані рольові ігри, моделюючі ситуації успіху, тренування впевненої поведінки та інші способи. Вказано, що ключовими компонентами методики репетиції впевненої поведінки ϵ моделювання, інструктаж та підкріплення з боку викладачів ситуацій успіху

Problem setting. The peculiarity of a person is that everything that happens to him is subject to continuous psychologically stressful self-assessment of actions, approved decisions, determination of his personal significance. Assimilating the certain norms and values in the process of learning and education, the student, influenced by the evaluative opinions of teachers and other

people, starts to relate as to the real results of his activity, and to himself as a person. In the educational process, a self-assessment of the capabilities of the individual, on which his success depends, is formed.

Recent research and publications analysis. The modern humanistic pedagogy proceeds from the recognition of the uniqueness of each student. Its representatives believe that each student is endowed with a set of inclinations, abilities, potencies characteristic to him only. Mental originality is determined by the peculiarity of the formed relationship to the natural world, to society and to oneself. In their opinion, the educational process should ignore neither the biological nor the psychological nature of a student. The main task of a humanistically oriented educational process is to create such pedagogical conditions under which students, in accordance with their uniqueness and originality, with the help of teachers, will be able to fully reveal the potential of their personality.

Humanistic pedagogy examines the entire inner life of a student, dependent on his self-assessment. "Self-assessment," according to its prominent representatives K. Rogers and J. Freisberg, is "the most important means by which independent studying becomes a responsible studying as well." [12]. They state that modern schools are crushed by formalism and this leads to oblivion of the true goals of educational activities. The self-assessment that develops in the process of such learning blocks the way to self-realization of a student.

Domestic pedagogy proceeds from the fundamental importance of the activities carried out by the participants in the educational process. Treating educational activity as a special formative integrity, teachers and psychologists investigate in detail its components: motives, goals, actions and operations. Such a vision makes it possible to make the object of study many phenomena of the inner life of the subject of learning: his personality, experiences, abilities, inclinations, thinking, imagination, etc. Naturally, this also includes self-assessment, which is interpreted by scientists as a special mental formation.

For all the variety of scientific approaches to the study of this problem, all of them are united by a generalized conclusion, the essence of which is that human success, as well as failure is largely the result of high or low self-assessment. Failure as a factor that deforms the formation of a personality requires an urgent search for strategic solutions that will ensure the efficiency of the education system. The way out of this situation must be associated with the identification of positive factors, which can become the basis for a successful educational process. This contributes to the productive socialization of each student and his achievement of success in life [11].

The purpose of the article: identification of formative factors that contribute to adequate positive self-assessment of students, increase their self-confidence and success.

Paper main body. Self-assessment is a complex personal formation and belongs to the fundamental properties of personality. It is what a person learns about himself from others, awareness of his actions and personal qualities. Self-assessment is related to one of the central human needs - the need for selfaffirmation, which is determined by the attitude of real achievements to what he claims, what goals he sets for himself. In the practical activity a person aspires to achievement of such results which are consistent with his self-estimation, promote his strengthening and activation. Significant changes in selfassessment occur only when the achievements of the subject of activity are associated with the presence or absence of the necessary abilities [14,15]. Due to the inclusion of self-assessment in self-development, the individual constantly correlates his capabilities, mental resources with goals and means of activity.

Assimilating certain norms and values in the process of learning and education, the student starts, under the influence of the value judgments of parents, teachers, mates, to relate in a certain way both to the real results of his educational activity, and to himself as a person. So, in the educational process, a special attitude to assessment of his capabilities is formed, which becomes one of the main components of self-assessment of both his achieved and future results.

There are three points that are essential to understanding self-assessment. Firstly, an important role in its formation is played by the comparison of the image of the real and ideal ME, that is, with the idea of what a person is and what he would like to be. The second factor is related to the fact that a person is inclined to evaluate himself as, in his opinion, others evaluate him. Another view of the nature and the formation of self-assessment is that an individual evaluates the success of his actions and manifestations through the prism of his identity. The individual feels satisfaction not from the fact that he is simply doing something well, but from the fact that he has chosen a certain business and is doing it well. It should be emphasized that self-assessment, regardless of whether it is based on the individual's own judgments about himself or interpretations of the judgments of others, is always subjective.

There are several sources of self-assessment formation at different stages of personality formation:

- other people's evaluation;
- the opinion of the reference group;
- actual comparison with others:
- comparison between real and ideal ME;
- the results of his activities.

Self-assessment can be adequate (real, objective) or inadequate, which, in turn, can be underestimated or overestimated. Adequate self-assessment is a coincidence of expectations about his own and real capabilities, which is impossible without action and analysis of the results of his actions. A person who has adequate self-assessment feels worthy and, as a result, believes in his success. He sets many goals and chooses the appropriate means to achieve them. Responsibility does not frighten him,

and belief in success allows him to ignore temporary failures and mistakes.

Positive evaluation gives the individual additional internal activity, promotes the formation of faith in himself, his strengths, stimulates and strengthens the desire to further goal achievement. Negative self-assessment has a diametrically opposite effect, not stimulating the activity of the individual, but on the contrary, sharply reducing his motivation and focus, which can lead to a chronically negative perception of his relationship with reality. This leads to the deformation of the human personality, significantly narrowing the choice of opportunities for self-realization [1].

Adequate self-assessment is the first step on the way to self-confidence. Self-confidence is a personality trait, the core of which is the individual's positive assessment of his abilities as sufficient to achieve goals that are significant for him and satisfy his needs. It can be described as a positive sense of self and self-belief. Self-confident people often correctly assess the environment, more independent of external circumstances, as well as the thoughts and expectations of others. Self-confidence helps them to overcome obstacles that will occur on the way to success. In his practice, a person strives to achieve such results that are consistent with his self-assessment associated with selfconfidence.

On the basis of NTU M. Kanivets conducted a study on the correlation between self-assessment students and their self-confidence. Students of technical specialties of 2d and 3d years of study took part in it. Коли саме було проведено дослідження? Скільки осіб прийняло участь? Який метод та чому саме він було обрано дослідником? Чи участь у дослідженні була добровільною та анонімною? Self-confidence was studied according to the test of V. Romek "Psychology of self-confidence". The results obtained indicate that there is a direct correlation between the level of selfassessment and self-confidence. The results

of the correlation analysis of the scales in the experiment are 0,263 while p<0,05. Moreover,

this correlation is more typical for students with adequate self-assessment. [6, p.280].

Colf confidence

The correlation between self-assessment and self-confidence

Table 1

Self-assessment	Number of students		Sen-confidence					
			high		average		low	
	total	in %	total	in %	total	in %	total	in %
Inadequately high	48	40	14	29,2	31	64,6	3	6,2
Adequately high	16	13.3	10	62,5	6	37.5	0	-
Adequately average	45	37.5	6	13.3	35	77,8	4	8.9
low	11	9.2	0		7	63,6	4	36.4
Total	120		30	25.0	79	65.8	11	9.2

Thus, the results of the study indicate that many students have inadequate (40 %) and low self-assessment (9.2 %). With regard to self-confidence, 25% of students have a high level of confidence, 65.8 % average and 9.2 % low. This indicates the need for the formation of adequate self-assessment and self-confidence, greater which are interdependent. So, their correlation is more typical for students with adequate self-These indicators assessment. approximately the same, according to the results of the study conducted five years after the previous one among the second and the third-year students, which indicates that these issues were not given due attention during the training. Therefore, the study of the factors affecting their formation is extremely relevant during study at a university and is associated with the success of future specialists. The formation of the required level of self-confidence among students is more successful, the more adequately and purposefully the entire system of the educational process of the university is subordinated to this process. Of particular importance are disciplines that contribute to self-knowledge and the formation of a student's inner world.

Self-assessment is the result, first of all, of mental operations such as analysis, comparison, synthesis, that is, self-knowledge. The problem of self-awareness is a subject of study by well-known psychologists and is relevant for pedagogical science. There are different approaches to studying the structure of self-awareness. Self-consciousness is a complex psychological structure, which includes, as special components, firstly, the consciousness of one's identity, secondly, the consciousness of one's own "I" as an active principle, thirdly, awareness of one's mental properties and qualities, and, fourthly, a certain system of social and moral self-assessments. This is the image of self and attitude to himself, which is inextricably linked with the desire for selfknowledge. The forms of self-awareness that become ways of self-knowledge of an individual are called reflection. Reflection is a person's thinking about himself, direct selfcontrol of a person's behaviour in an actual situation, understanding its elements, analysing what is happening, the subject's ability to correlate his actions with the situation and their coordination in accordance with changing conditions and his own state. It is important to note that reflection is not just an awareness of what is in a person, but always simultaneous changes of a person himself, an attempt to go beyond the boundaries of the level of personality development that has been achieved.

Reflection plays an important role in the self-knowledge of a person and his self-assessment. According to the results of a study carried out at NTU "KhPI", it was revealed that students with adequate self-assessment have a higher level of reflexivity than those whose self-assessment is inadequate [6;7]. As a result of further research of this problem, it was also established that the level of reflectivity among students has undergone small changes over the past five years. This indicates that in the process of teaching and educating students, insufficient attention was paid to the formation of reflexivity as a way of self-knowledge of a person, which has an unfavourable effect on their adequate self-assessment and self-confidence.

The final product of the formation of self-awareness is a dynamic system of a person's ideas about himself, associated with their evaluation, called in the psychological literature the term "self-concept". The selfconcept is a stable, generalized, internally consistent idea of a person about himself, fixed in verbal definitions. It helps to interpret and motivate new experiences and is a source of expectation of certain actions towards oneself. The self-concept allows you to discipline thinking, concentrating it exclusively on the chosen subject, i.e. on the goal set, as well as to connect to a person's subconscious, to all the reserves hidden in it, to achieve the desired results [8, p. 57].

Self-knowledge is the basis for the development of constant self-control and self-regulation of a person. Self-control is manifested in the subject's awareness and assessment of one's own actions, mental states, in the regulation of their course. This is a conscious regulation by a person of his behaviour and activities to ensure the compliance of their results with the goals set, requirements, norms, rules, etc. It is necessary to persistently teach students to plan and control their actions and correlate them with those that are required. Self-control is also an important means of mental and moral self-improvement of a person.

An important role in this process is played by self-belief which is a special type of a person's influence on himself through self-programming, which, in terms of its content and consequences, can be positive and negative. Positive self-belief is aimed at self-education, mobilization of the physical and intellectual capabilities of a person. Negative self-belief causes undesirable states, paralyzes activity [8, 232].

Self-education is a systematic and conscious activity of people aimed at developing the desired physical, mental, moral, aesthetic qualities, positive traits of will and character, and eliminating negative (harmful) habits. The way of self-education is to control one's feelings, thoughts, behaviour. The result of self-education is associated with self-improvement. The need for this arises in educational activity, when a certain level of consciousness and self-knowledge has been reached, the ability for introspection and self-assessment has been developed, when the need to match personal qualities to the goal set for oneself and the achievement of the desired result is realized.

One of the main mechanisms in increasing positive self-assessment and selfconfidence is to create a situation of success in the learning process. The situation of success is a purposeful, specially organized set of conditions that allows to achieve significant results in the activities of the subject, which are accompanied by positive emotional and psychological experiences. Living a situation of success, he acquires a sense of self-worth, competence and self-confidence. At the same time, the main task is to organize a potentially possible set of activities, which provides each student with the opportunity to experience a sense of personally achieved emotionally lived success. This should become the fundamental basis for the formation of an active, optimistic personality entering life.

To do this, it is necessary to implement modern innovative technologies. Thus, role-playing games that simulate situations are used to rehearse confident behaviour. In this case, the teacher acts as a trainer, and the game is built on the basis of the interaction of one of the group members with other participants who represent people

significant to him. The teacher usually starts with situations that can create difficulties for most insecure people. Examples can be classes to practice confident behaviour when dealing with service workers or in conditions of critical or hostile attitudes from others. This is the training of various communication skills, including attention to the interlocutor, the ability to make and receive compliments, change the topic of conversation, start and end a conversation, and pause.

In the process of practicing the ability to behave confidently in training groups, the teacher or any of its participants can model the "correct" behaviour in the situations played out in the classroom. Modelling is a special technique of behavioural response, the use of which is very effective in cases where group members need to master new or reinforce insufficiently expressed forms of behaviour. [9]. Group members learn a new way of behaviour, observing how other participants or the teacher model it, as well as their reactions to it. Audio and video recordings of confident behaviour models are used in some groups. By playing different roles, group members become involved in the group process and acquire useful new behavioural skills.

Rehearsal of behaviour when using it by the head of a psychocorrectional group can be reduced to the following seven tasks:

- determining what kind of behaviour needs rehearsal;
- instructing the participant and teaching him to act out the scene;
- repetition of a scene in order to improve the actions of its participants;
 - modelling the desired behaviour;
- using approaches that provide for a hierarchy of individual tasks and their sequential implementation in cases where the problem being solved is too difficult for clients and causes anxiety;
- repeated rehearsal of behaviour throughout the entire lesson in the group.

Another component of the behaviour handling process is reinforcement. The concept of reinforcement plays a fundamen-

tal role in the behavioural sciences and is the cornerstone of most methods for changing it. There are several working definitions of reinforcement. In the theory of operant conditioning developed by Л. Якокка[15], reinforcement is understood as an event or stimulus that increases the likelihood of reproducing an action that preceded reinforcement. Reinforcement is an encouragement or, more correctly, any positive reaction from the teacher or group members to a behaviour. It is very important that any, even the smallest, achievement is reinforced, and not just a successfully completed complex sequence of actions. In behavioural groups, reinforcement is usually used to shape the behaviour of individual participants in the direction of goals that they set for themselves.

The portfolio is relevant for the formation of self-assessment. This is a systematic and specially organized collection of evidence, which serves as a way of systematic reflection on one's own activity and presenting its results for the current assessment of competencies or competitive entry into the labour market. The model of enhancing educational activity based on the portfolio method can be used by teachers in organizing students' educational activities, assessing the quality of educational results, developing the reflexive position of schoolchildren, building the trajectory of an individual educational route.

Conclusions of the research. Thus, the relationship between self-assessment and self-confidence, and the relevance of their activation is shown. From all the variety of techniques and methods of forming an adequate self-assessment and a high level of self-confidence, the following are distinguished: the formation of the self-concept, which should be used for self-development and self-improvement; creation of situations of success in the learning process, participation in the innovative trainings that contribute to the formation of adequate self-assessment and confident behaviour. To achieve this, role-playing games, simulating situa-

tions of success, training confident behaviour, and others should be used. It is shown that the key components of the behaviour rehearsal methodology are modelling, instruction and reinforcement from the teachers.

Список літератури:

- 1. Аткинсон М., Чоис Р Т. Наука и искусство коучинга. Внутренняя динамика. / М. Аткинсон, Р Т. Чоис. К.: Companion Group. 2009. С. 208
- 2. Bekh, I. D. (2003), "Education of personality", Navchal'no-metodychnyy posibnyk u 2-kh tomakh, "Personality-oriented approach: theoretical and technological principles", Kyiv: "Lybid", vol. 1, p. 208
- 3. Humenyuk, O. Ye. (2002), "Psychology self-concept", Ternopil', p. 190
- 4. Dan'sheva, S. O. (2000), "Professional self-education of students of technical universities", Avtoref. dys. na zdobuttya nauk. stupenya kand. ped. nauk: spets. 13.00.04. KH., p. 16
- 5. Dakhin, A. N. (2004), "Educational modeling: essence, effectiveness and uncertainty", Teoriya i praktika obrazovatel'noy tekhnologii, Moscow: NII shkol'nykh tekhnologiy, p. 65–93
- 6. Kanivets', M. V. (2011), "Formation of self-confidence in students of higher technical educational institutions", Pedahohika formuvannya tvorchoyi osobystosti u vyshchiy i zahal'noosvitniy shkolakh, Zb. nauk. pr., Zaporizhzhya, vyp. 17 (70), p. 277 –283
- 7. Kanivets', M. V. "Reflection as a property of self-consciousness of the student's personality", Informatsiyni tekhnolohiyi: nauka, tekhnika, tekhnolohiya, osvita, zdorov"ya, Tezy dopovidey XIX mizhnarodnoyi naukovo-praktychnoyi konferentsiyi, CH. III. (1-3 chervnya 2011 r., Kharkiv) Kharkiv, NTU "KHPI", p. 307
- 8. Mikhaylichenko, V. Ê. (2015), "Personality development psychology", Kharkiv: Stil' Izdat, p. 387
- 9. Borytko, N. M., Vorontsova, T. V., Gerasev P. P. i dr. (2001), "Modeling the educational process", Pod red. V. A.

Pyatina, Vospitatel'naya deyatel'nost': metodologiya, soderzhaniye, tekhnologii, Astrakhan': Izd-vo AGPU, p. 532

- 10. Ostapenko, A. V. (2008), "Pedagogical support of student self-development in a university", Diss. kand. ped. nauk: 13.00.01, Nizhniy Novgorod, p. 193
- 11. Romanovs'kyy, O. H., Mykhaylychenko, V. E., Hren', L. M. (2011), "Pedagogy of success", NTU "KHPI", p. 367
- 12. Rodzhers, K., Freyberg, Dzh. (2011), "Freedom to learn", Moscow: Izd-vo "Smysl"
- 14. Serebryakova, Ye. A. (2000), "Self-confidence and the conditions for its formation among student youth", Moscow: Akademiya, p. 222
- 14. Якокка Л., Новак У. Карьера менеджера. / Л. Якокка, У. Новак // Перев. с англ. Москва: Изд-во Попурри. 2014. С. 510

Reference:

- 1. Atkinson, M., Chois, R. T. (2009), "The science and art of coaching. Internal dynamics", Kyiv: Sompanion Group, p. 208
- 2. Bekh, I. D. (2003), "Education of personality", Navchal'no-metodychnyy posibnyk u 2-kh tomakh, "Personality-oriented approach: theoretical and technological principles", Kyiv: "Lybid", vol. 1, p. 208
- 3. Humenyuk, O. Ye. (2002), "Psychology self-concept", Ternopil', p. 190
- 4. Dan'sheva, S. O. (2000), "Professional self-education of students of technical universities", Avtoref. dys. na zdobuttya nauk. stupenya kand. ped. nauk: spets. 13.00.04. KH., p. 16
- 5. Dakhin, A. N. (2004), "Educational modeling: essence, effectiveness and uncertainty", Teoriya i praktika obrazovatel'noy tekhnologii, Moscow: NII shkol'nykh tekhnologiy, p. 65–93
- 6. Kanivets', M. V. (2011), "Formation of self-confidence in students of

ПСИХОЛОГО-ПЕДАГОГІЧНІ АСПЕКТИ РОЗВИТКУ СИСТЕМИ ВИЩОЇ ОСВІТИ ТА ЇЇ ЗМІСТУ

- higher technical educational institutions", Pedahohika formuvannya tvorchoyi osobystosti u vyshchiy i zahal'noosvitniy shkolakh, Zb. nauk. pr., Zaporizhzhya, vyp. 17 (70), p. 277 –283
- 7. Kanivets', M. V. "Reflection as a property of self-consciousness of the student's personality", Informatsiyni tekhnolohiyi: nauka, tekhnika, tekhnolohiya, osvita, zdorov"ya, Tezy dopovidey XIX mizhnarodnoyi naukovo-praktychnoyi konferentsiyi, CH. III. (1-3 chervnya 2011 r., Kharkiv) Kharkiv, NTU "KHPI", p. 307
- 8. Mikhaylichenko, V. Ê. (2015), "Personality development psychology", Kharkiv: Stil' Izdat, p. 387
- 9. Borytko, N. M., Vorontsova, T. V., Gerasev P. P. i dr. (2001), "Modeling the educational process", Pod red. V. A. Pyatina, Vospitatel'naya deyatel'nost': me-

- todologiya, soderzhaniye, tekhnologii, Astrakhan': Izd-vo AGPU, p. 532
- 10. Ostapenko, A. V. (2008), "Pedagogical support of student self-development in a university", Diss. kand. ped. nauk: 13.00.01, Nizhniy Novgorod, p. 193
- 11. Romanovs'kyy, O. H., Mykhaylychenko, V. E., Hren', L. M. (2011), "Pedagogy of success", NTU "KHPI", p. 367
- 12. Rodzhers, K., Freyberg, Dzh. (2011), "Freedom to learn", Moscow: Izd-vo "Smysl"
- 14. Serebryakova, Ye. A. (2000), "Self-confidence and the conditions for its formation among student youth", Moscow: Akademiya, p. 222
- 15.Jakokka, L., Novak, U. (2014), "Manager career", Perev. s angl. Moskva: Izd-vo Popurri, p. 510

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