lution of its constructive-technical, technological, organizational tasks which would display situations of real work.

The solution of different scientific, practical, art, constructive and other tasks which arise in a life of people, demands knowledge by them not only external properties of objects, and their internal connections and attitudes. Therefore, as G.S. Kostiuk marked, "a problem of the development of thinking, and especially the development of creative thinking which differs originality and creativity is very important presently" [1].

The task, as a rule, is the problem set or formulated independently which demands from the subject of the certain actions at finding of the answer to that or other question, which contains in a condition of task. It can be a task on mathematics, and a task, which emerges in conditions of game, an administrative task, etc. Psychological task emerges (is formulated) for the subject in the case when he does not know how to reply, how to orient in the given situation, he needs to search for the answer, especially to organize the activity.

Analysis of recent researches and publications. The problem of creative thinking development is in the center of attention of many scientists during all development of psychology-pedagogical science about creativity (L.S. Vygodskyy, J. Gilford, O.S. Yermakova, A.B. Kovalenko, G.S. Kostiuk, S.D. Maksymenko, O.M. Matyushkin, V.O. Moliako, A. Osborn, Y.O. Ponomaryov, R.O. Ponomaryova, S.L. Rubinshteyn, E. Torrens, M.G. Yaroshevskyy, etc.).

One of the methods of students training to technical creativity is the solution of constructive-technical tasks which display tasks of manufacture both on engineering, and at an executive level. Such approach is named as determining in works of many scientists (T.V. Kudryavtsev, A.F. Esaulov, Y.O. Ponomaryova, V.O. Moliako, etc.).

Based on continuous studying design activity on professional level, V.O. Moilako has offered the system of creative training of students during their training for technical labour activity [2]. The component of creative training method is the using of complications during the solution of constructive-technical tasks. We shall consider the psychological features of this process.

Purpose. The purpose of article is to reveal features of cogitative activity, functioning of strategy during the solution by the students of constructive-technical tasks.

Results. The creative task, as marks V. Moliako, is completely new or unfamiliar for the subject, or at least, contains significant newness, which defines the intellectual efforts, special search, finding of a new method of the decision [4].

Tasks, the questions and practical tasks are effective didactic means, which make active creative activity of subjects, and especially if they are problem, they have contradictions in their contents. The overlap between creative and constructive thinking becomes more and more obvious. We see creativity as a way to be 'constructive'. Creativity is most effective when embedded in constructive thinking. It is quite possible to be constructive without being exceptionally creative. This can be done with designs that put together known elements in standard ways. It is also done by yellow hat focus on positive aspects and then seeking to develop these.

Edward de Bono notes that the constructive thinking that delivers values. Creative thinking may design new values and may suggest new ways of delivering values, but it is constructive thinking that makes things happen. There is not as much hype and mystique around constructive thinking. That may be a good thing. It is also a good thing that creative people put more emphasis on constructive thinking [5].

Creative thinkers develop the habit of approaching challenges or questions from solution-oriented perspectives. Constructive thinking requires more of a shift in personal attitude and philosophy than it

does adoption of techniques or strategies, and although logic would suggest that, everyone should be constructive. Incredibly, many societies and cultures cultivate destructive and confrontational modes of thinking and acting to the point where we tend to view them as being normal and acceptable. Of course, people do not think they are being deliberately destructive or confrontational, but consider how our governments, courts, workplaces and even home environments often operate.

The confrontational approach is a tenuous strategy because it tends to make proponents of a particular point of view isolationist and thus denies the opportunity and inclination to seek out alternatives or opposing points of view.

You have probably known people who seem to move naturally in creative directions when confronted by a question, problem, or issue. They seem to instinctively seek positive outcomes and eagerly involve others in helping to reach solutions. You have probably also known people who seem more inclined to view challenges as annoyances. These people often begin their thinking process with a litany of negatives: "I can't solve this..." or "I've got enough to do already..." or "I know what I'd like to do but these other people just don't seem to get the point..."

Becoming a consistent creative thinker comes first from forming the appropriate mental mindset and then by disciplining yourself to practice being constructive. In addition, do not overlook the fact that being constructive almost automatically helps us to be more likable-an important consideration in the careers.

Rather frequently constructive activity begins from finding of the contradiction. Not everyone is capable to notice the contradiction, but only the one who is ready to these. Such people have necessary skill and knowledge of that sphere in which there are contradictions, they have advanced abilities – the generated conforming readiness. Ingenious people who are able to notice the contradiction in the environmental world, become inventors of ideas in this or that sphere of creativity: social, pedagogical, scientific, technical, art, etc.

Engineering innovation; comprises such forms of activity as invention, rationalization, design, design engineering, industrial design and designing and engineering activity of students and nonprofessionals. Design engineering has been chosen for investigation, as encompassing essential features of other forms of engineering creativity. Thus, the implications of the studies of design engineering can be extrapolated to engineering creativity as a whole. This also applies to the general structure of the process of creative engineering [2].

The present analysis of creative process employs the concept of "decision-making stream" reflecting the complex dynamic relationship between images, concepts and ideas. It is fitting to note that different philosophical schools and movements, of course have elaborated the theories of matter motion stream, in their own fashion. Considerable attention is known to have been given to this question in the studies in dialectics, dialectical materialism, and in psychology, as well [4].

The interpretation of the psychological structure of the process of decision-making and evolvement of the image of the design ("construction") to be sought has made it possible to use, for an integral description of this process, the notion of "strategy", which is determined by the dominant thinking tendencies, their regularity and realization frequency, and which differs from such broader notions as "method", "mode", "plan", etc. (mode and method are rather abstracted from the personality and the plan of decision-making shows only the sequence of acts, whereas strategy encompasses all of these reflecting the individual's specific direction, tendencies in their basic aspects, paramount for decision-making) [3].

A strategy is taken to mean a rather complex psychological formation comprising preparatory, planning and realization acts, which are related to the

fulfilment of the individual's, potentialities in the concrete situation of creative activity. A strategy's concrete direction is made up of its dominant tendencies (e.g. a search for analogues), which are realized through concrete images and concepts. The making and elaboration of a strategy, as an above-described system, is examined in the present study through the examination of the making and elaboration of a device design, which develops from initial goal through the evolving image of the end product up to preliminary validation in a sketch-form (approbation).

The evolvement of the strategy of a concrete process of creative activity as well as the entire psychological structure of this process, are seen as involving a rather intricate blend of three main cycles: the examination of the engineering problem, project (hypothesis) formation and the making of a preliminary decision (approbation).

Five major strategies in design engineers' intellective activity have been identified: 1) a search for analogues, 2) combinatorial actions, 3) redesigning actions, 4) universal strategy, 5) random substitutions. Each of these is primarily geared to creating a particular engineering structure with particular functions, to structural-functional transformation of engineering devices, which is, in fact, related to the essence of design engineering [2].

The major tactical paths were identified, which form part of strategies during hypothesis building, e.g. interpolation, hyperbolization, duplication etc.

The study of creative activity invariably focused on the process of design engineering – on the image of the system being designed; whose structural and functional characteristics are what the search is aimed at; which, in its turn; determines the overall configuration (organization) of the decision-making process. The evolvement of the design image can be presented as a chain of transformations of a sort of "proto-image" into the image to be materialized, viz.: "a proto-image" – "a fore-image" – "a reference image" – "a dominant image" – "pre-project-image"– "project image" – "sketch image" (the latter serves as the basis for making device drawings) [2].

To generalize, the study has made it possible to formulate and, as far as possible, to substantiate the hypothesis of the process of design engineering as a polydominant decision-making stream, organized and regulated by corresponding strategies and tactics through the main system-forming dyad "image-drawing" (sketch). It is the visual image of the engineering device, materialized and tested in drawings and sketches, which enable the design engineer to make basic decisions at the preliminary stages of the process of engineering activity, as well as at the final stages, when it is ultimately assessed to what degree the device being designed, meets the requirements of the engineering assignment, of current standards, regulations and of various external factors. Such interpretation of design engineering activity appears to be psychological, more realistic than the primarily logical interpretations, which have been prevalent so far: the present interpretation permits us to elucidate, the significant connections and dependencies between the personality and creative activity, externalized in various intermediate and final products [3].

Discussion. Creativity should become norm of professional work and preparation to it, we should note that each expert should be the creative expert. Certainly, a level of creative activity always there will be different, as in each concrete case creative opportunities of each worker determined by its abilities, endowments, talent. Process of formation of professional creative thinking is continuous during all vital activity.

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ТВОРЧІ СТРАТЕГІЇ КОНСТРУКТОРСЬКОЇ ДІЯЛЬНОСТІ

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Анотація. *Розглянуто процес розв'язування конструктивно-технічних задач як послідовної зміни пов'язаних між собою етапів продуктивних і пізнавальних дій. Охарактеризовано стратегію як динамічне, процесуальне утворення, в якому виділяються наступні основні етапи: 1) вивчення умови задачі; 2) перевірка умови конкретними знаннями – співвіднесення нової задачі із системою своїх знань й досвіду практичних дій; 3) вибір гіпотези про можливе структурне й функціональне перетворення заданих складових; 4) "проектування" гіпотези на всі умови в цілому й локалізація її щодо місця конкретного застосування; 5) перевірка гіпотези за допомогою передбачених нею тактик і допоміжних прийомів; 6) деталізація.*

Ключові слова: *творчість, творче мислення, стратегії, конструктивно-технічна задача, розв'язування задач.*

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МОТИВАЦІЯ СТУДЕНТІВ ДО НАВЧАННЯ

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Анотація: *У статті здійснено дослідження мотивації студентів закладів вищої освіти з метою виявлення домінуючої. Для цього всі мотиви навчальної діяльності поділено на пізнавальні та соціальні. Опитування проводилось за допомогою методики вивчення мотивів навчальної діяльності (модифікація А. Реана, В. Якуніна). Воно засвідчило, що у системі навчання майбутніх фахівців лісового господарства домінантними є такі пізнавальні мотиви: «стати висококваліфікованим фахівцем», «здобути глибокі й міцні знання», «забезпечити успіх у майбутній професійній діяльності». Серед соціальних найчастіше називається мотив «одержати диплом», «постійно одержувати стипендію», «добитися схвалення батьків і оточуючих». Такі мотиви, як «не відставати від однокурсників», «виконувати педагогічні вимоги», «бути прикладом для однокурсників», «уникнути осуду й покарання за погане навчання», студенти обирали досить рідко. У студентів 1, 3 та 4 курсів переважає пізнавальна мотивація. Студенти 2 курсу серед важливих для них мотивів назвали 2 пізнавальні та 2 соціальні. Проте соціальний мотив «одержати диплом» отримав перший ранг. Перспективи подальших досліджень вбачаємо у розробці методики ефективного формування мотивації навчальної діяльності студентів.*

Ключові слова: *мотивація, навчальна мотивація, мотив, пізнавальні мотиви, соціальні мотиви, студент, заклад вищої освіти.*

Актуальність. Успішність навчання студентів професії безпосередньо залежить від мотивів її вибору. Як стверджують науковці [2], цінність вищої освіти як засобу отримати глибокі й міцні знання та стати висококваліфікованим фахівцем останнім часом різко знизилася. Поширення набуває мотивація вступу до закладів вищої освіти заради диплому. Значна кількість студентів не усвідомлює мети свого навчання у закладі вищої освіти та називає різні мотиви здобуття освіти. Отже, проблема мотивації до навчання нині є досить актуальною.

Аналіз останніх досліджень та публікацій. Вивченню мотивів навчальної діяльності у закладі вищої освіти присвячені праці Н. Бадмаєвої, Л. Божович, Н. Василенко, О. Видри, С. Занюка, Є. Ільїна, Т. Ільїної, А. Маркової, Г. Мухіної, Г. Павловець, В. Філоненко, П. Якобсона, В. Якуніна та ін. Усі вони простежують три основні лінії мотивації: пізнавальну, професійну і соціальну (прагматичну).

Мета статті. Дослідити пізнавальну і соціальну мотивацію студентів закладів вищої освіти з метою виявлення домінуючої.

Методи дослідження. Дослідження мотивації студентів проводилось за допомогою методики вивчення мотивів навчальної діяльності (модифікація А. Реана, В. Якуніна). Вона має два варіанти, відмінності між сюк