

Virna Zh. P. , Hubina A. M.

SUCCESS ACHIEVEMENT MOTIVATION AS THE DETERMINANT OF PROFESSIONAL SELF-DETERMINATION OF ENGINEERING STUDENTS

Lutsk, Ukraine

Abstract. *Recent studies have shown that there is a lack of reasonable ideas about structure and mechanisms of functioning of the individual's motivational sphere as a leading factor of successful professional self-determination in the scientific psychological literature. This article centres round the study of motivation factors of professional self-determination of engineering students. The conceptual bases of a problem research are proved in the work. Motivational and predictive model of professional self-determination of a student was built. The motivational and predictive model highlights the following key components: cultural relevance, economic efficiency, reflexive assessment of own professional training and effectiveness. Scientific understanding of identification of key motivational positions of productive personality's professionalization (personality-behavioural attitude, cognitive attitude towards success or failure, information and controlling position, reflexive and sense position of positive understanding of the professional image) was extended. As a result of empirical research the differences between motivational factors of professional self-determination of students on the criterion of training area, as reflected in the distribution of the factor structure of personality characteristics, were found. The integrative meaning of success achievement motivation in psychological support of the professional self-determination of engineering students was revealed.*

Keywords: *professional self-determination, success achievement motivation, motivational factors, engineering students.*

Demand for effective professional self-determination of future specialists is increased in the circumstances of rapid socio-economic changes in modern society. This provides successful personal and professional realization of a specialist. In market conditions, it is important to replenish labor forces by promising professionals who are both able to solve professional problems in a qualitative manner, and also be socially successful. Thus the presentation of a problem becomes of particular importance in the context of training of engineering specialists, whose scope of professional realization depends on the real problems of inclusion of young people in employment. In this regard, there is a need to examine the future specialists' motivational sphere which comprises mechanisms for achieving their goals since this provides prospects for professional success.

Researches devoted to the study of motivational sphere in the context of professional development (V. Bodrov, Zh. Virna, E. Zeyer, O.

Dusavytskyi, E. Klimov, M. Pryazhnikov, V. Semychenko et al.), success achievement motivation of an individual (M. Mohammed-Eminov, D. McClelland, A. Maslow, J. Nuttin, H. Heckhausen, K. Fomenko, T. Khomulenko et al.), motivational factors of professional self-determination of engineering students (O. Butylina, G. Lozhkin, N. Mashchenko, N. Povyakel, V. Polyakov, S. Savchenko, et al.) were analyzed. The analysis has shown that scientific psychological literature so far lacks reasonable ideas about the structure and mechanisms of functioning of the individual's motivational sphere as a leading factor of successful professional self-determination, regulatory content of which naturally predetermines indicators of efficient professionalization. There is no empirical argument for structural content of individuals' success achievement motivation in their future careers and for success indicators of professional realization of engineering specialists.

The purpose of research is theoretical and empirical justification of success achievement motivation as a determinant of professional self-determination of engineering students.

Study process consisted in creating a program-methodical material and provided its structural and logical phasing. Among the used methods are *theoretical* – analysis, synthesis, comparison, generalization and systematization of scientific and psychological information with the aim to substantiate the problem of motivational professional self-determination of an individual; *empirical* – monitoring, testing, interview aimed to study motivational factors of professional self-determination of engineering students; *quantitative data-processing* – factor analysis, regression analysis, nonparametric the Mann-Whitney-U test for an independent samples difference.

In the course of theoretical analysis, the understanding of professional self-determination was highlighted as a long process of going through certain stages of professional development, where the students' stage plays the most important role, because young people become aware of themselves as a subject of professional activity when in college.

Scientists ascertain a fact that motivational and sense sphere had decisive influence on professional development in researches aimed at studying professional activity motivation. This provided the opportunity to present understanding of person's professional self-determination as a process of formation of a motivational and sense dominant of labour subject in a holistic way of human life space where professional success is the criterion of success of life.

The review of the literature enables to distinguish aspects of psychological study of success achievement motivation within: the theory of causal attribution (B. Weiner); cognitive-behavioural theory of helplessness (M. Seligman); theory of self-efficacy on the formation of a sense of competence in the performance (A. Bandura); perceived control theory (E. Skinner); theory of intrinsic motivation (E. Deci and R. Ryan); and within C. Dweck's socio-cognitive approach; J. Rotter's concept of Locus of Control; developed models of risky choice (J. Atkinson) and integrative model of achievement motivation (J. Wegge). Sequential analysis of the concepts of success and successfulness in psychological and educational works of native and foreign psychologists allowed us to reach an extended understanding of essence of success in professional activity and state the fact that a high level of intrinsic success achievement motivation positively affects the successfulness of students' professional self-determination.

The results of the problem analysis are embodied in the motivational and predictive model of professional self-determination of a student, which distinguishes the following main components: cultural relevance, economic efficiency, reflexive assessment of own professional training and effectiveness that clearly reflects the possibility to study the professional self-determination from socio-economic as well as psychological and pedagogical points of view (Figure 1).

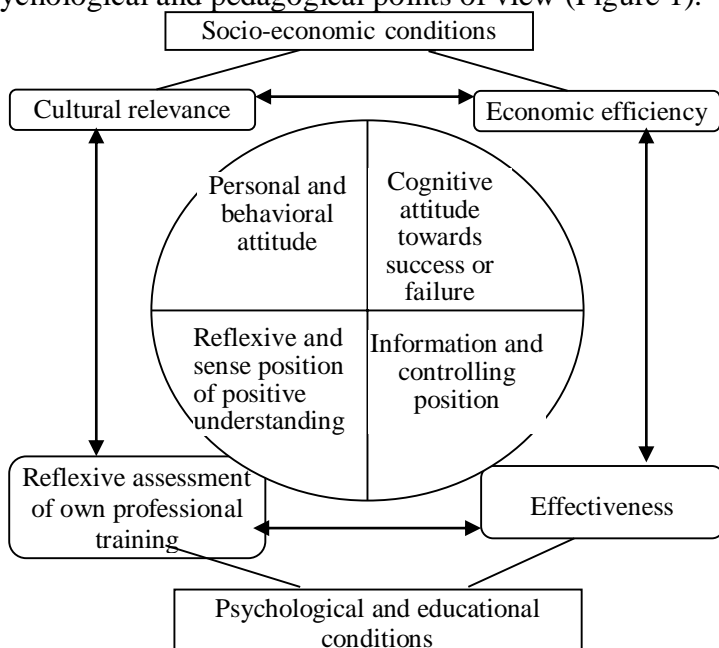


Fig.1. Motivational and predictive model of professional self-determination of a student

Description of psychological content of derived structural components enables to identify the main motivational positions of personality's productive professionalization (personal and behavioral attitude, cognitive attitude towards success or failure, information and controlling position, reflexive and sense position of positive understanding of the professional image). It also makes possible to give more specific definition of success achievement motivation in the process of students' professional self-determination as an incentive mechanism of professional person's activity, which integrates socio-economic and reflexive-targeted features of motivational orientation of effective professionalization.

Thus, success achievement motivation in the process of professional self-determination of engineering students is a mechanism that determines its goal orientation extent and efficiency. By means of this mechanism individual's main living attitude to work, to people, to sphere of knowledge is formed. Success achievement motivation determines the potential abilities of the individual, completeness and intensity of personal contribution to scientific and technical progress, passivity or acting; outlines the "trajectory" of social and psychological attitudes; defines specialist's development in professional sense, the forms of expression and a level of his/her creative activity. Marked motivational positions of productive professionalization meaningfully prove that the person who is able to succeed in the profession is characterized by the following: social responsibility, adequate self-appraisal, ability to set ideal and realistic objectives and implementation of personal choice.

Based on the above points on the role of achievement motivation in professional self-determination, the influence of sex distinctions on effective professionalization and considering proposed motivational and predictive model of professional self-determination of a student, diagnostic complex was designed and respondents were selected.

The study covered 251 students of Lutsk National Technical University and Lesia Ukrainka Volyn National University at the age from 17 to 20 years. Among them there are 140 (84 boys and 56 girls) engineering students and 111 (15 boys and 96 girls) students of nontechnical specialties. The sample was differentiated by the criterion of "training area". It was empirically ascertained that professional self-determination of students is caused by motivational factors as the determined structure of some personal properties. By means of application of factor analysis

method for the total sample it was determined that the factor structure of motivational factors is represented by factors: internal personal disposition, social and psychological adaptability, success achievement motivation, readiness to social interaction, leadership position, personal creativity, cognitive personal disposition, position of comfort and communication.

The method of multiple regression analysis extends the definition of motivational factors of professional self-determination of engineering students by prognostic determinants: the largest contribution to the dispersion of the dependent variable ("professional self-determination of engineering students") made factors of success achievement motivation ($\beta = 0,280$), readiness for social interaction ($\beta = - 0.229$) and internal personal disposition ($\beta = 0,211$). Thus, by means of multiple regression analysis, the profile of motivational factors of professional self-determination of engineering students in a complex of personal properties, with the leading role given to the factor of success achievement motivation, was obtained (Figure 2).

Empirically explicated results of the research provide a possibility to describe the main integrative functions of success achievement motivation because this psychological phenomenon falls into a specific class of procedural formations of the psyche or integrated processes, the operation of which corresponds to the mechanisms of mental integration. Each of motivational positions of productive personality's professionalization (personal and behavioural attitude, cognitive attitude towards success or failure, information and controlling position and reflexive and sense position) according to its functional meaning (functions connected with social and cultural implementation of human needs; with production of outputs and which are determined through reliability and the professional work quality; with the target programme planning of professional activities, with self-development and self-actualisation ensuring of professional development) is directly involved in motivational features of success achievement.

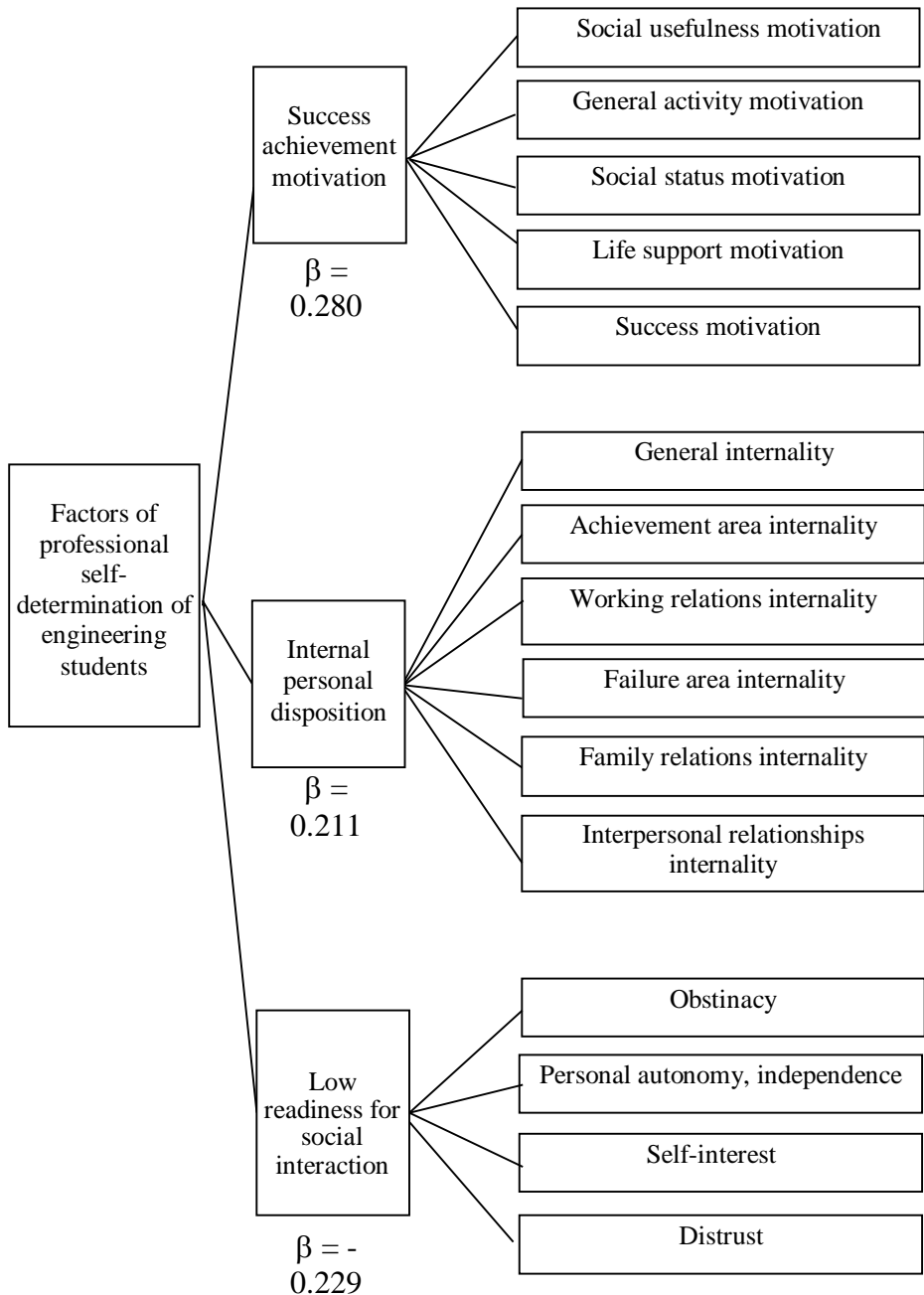


Fig. 2. Empirically explicated results of motivational factors of professional self-determination of engineering students

The obtained results enable to determine the psychological content of an engineering student's success achievement motivation, which serves as

motivational core consisting of dominant motives that organize and subjugate all incentives of professional realization. They determine the nature, quality and effectiveness of the profession. In our case, the morphology of connection of a basic quality – success achievement motivation – with leading qualities – internal personal disposition and low readiness for social interaction – is substantiated in the variants of interconnection: productive, unproductive and counterproductive (Fig. 3-5).

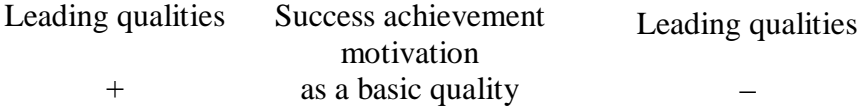


Fig. 3. Variant of unproductive display of success achievement motivation

This way the success achievement motivation can be developed, but according to its display content is unproductive because of the presence of negative correlation indicators in the display of the leading qualities of the phenomenon.

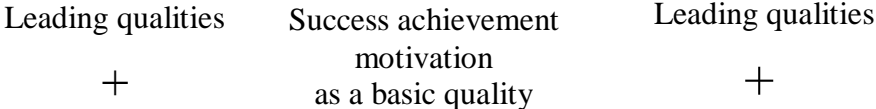


Fig. 4. Variant of productive display of success achievement motivation

Success achievement motivation by the content of display can be productive taking into account absolute characteristics of positive correlation indicators in the manifestation of leading qualities. This is a direct evidence of its real structure-forming and integration potential.

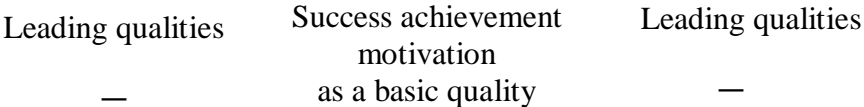


Fig. 5. Variant of counterproductive display of success achievement motivation

One more variant – the counterproductive display of success achievement motivation – demonstrates the presence of only negative correlation parameters in the leading qualities of the phenomenon. Such

state significantly complicates integration mechanisms of motivational features of professional self-determination.

Thus, the success achievement motivation is the basic quality and at the same time it is a structure-forming quality for all other personal properties that ensure success of professional self-determination of engineering students. It can be concluded that the integration occurs on the base of the advanced success achievement motivation. This forms the essence and mechanisms of professional self-determination. The influence of success achievement motivation on the process of professional self-determination rests on structural determination, therefore its integral role in the process of professional self-determination can be described as synthesizing. Thus, success achievement motivation is an indicator of all professional self-determination motivational features that are directly involved in ensuring its effective implementation.

Implementation of key findings should facilitate further studies of success achievement motivation, promote the development of constructive and generalized conceptual approach to this problem. Proceeding from the integrative characteristics of success achievement motivation it may be considered as a necessary element and even a kind of stage in the course of professional self-determination of students, the integration between basic psychological characteristics and integral structure of activity and behavior regulation.

References translated and transliterated

1. Virna Zh. P. Motyvatsiino-smyslova rehuliatsiia u profesionalizatsii psykhologa: monohrafiia [Motivational and sense regulation in psychologist's professionalization: monograph]. *Lutsk: Vezha*, 2003. – 320 s.
2. Hubina A.M. Motivatsiia dosiahnennia uspikhu yak determinanta profesiinoho samovyznachennia studentiv tekhnichnykh spetsialnostei [Success achievement motivation as the determinant of professional self-determination of engineering students] : dis ... kand. psykol. nauk : spets. 19.00.07 "Pedahohichna ta vikova psykhohiia " / A.M.Hubina. – Kharkiv. – 2013. – 200 s.