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ORGANIZATIONAL PRINCIPLES OF IMPLEMENTING THE MODEL OF FUTURE SPECIALISTS' PERSONAL AND PROFESSIONAL DEVELOPMENT IN THE EDUCATIONAL AND INFORMATION ENVIRONMENT OF A TECHNICAL UNIVERSITY

Abstract

The study deals with the problem of professional training of future specialists at technical universities. The professional training is considered as a system process of purposeful personal changes during learning for realizing a full-fledged subjective position by students during their life. The use of a new intellectual and activity paradigm in the educational and information environment of a technical university has contributed to the formation of a certain type of future specialist's consciousness, that has to perform the future professional activity in the best possible manner based on the reflexive approach and the implementation of the model of future specialist development in the educational and information environment of a technical university. The identification of the urgent issues of future specialists' professional training has confirmed the researchers' opinion that the psychological component has been practically excluded from the learning activity of the modern educational system, and this has led to the loss of a motivational component in obtaining a high-quality education; the lack of student's self-criticism; students' inability to identify and solve psychological problems of interpersonal relationships while learning. Therefore, the subjective characteristics of the student's personality (personality development and needs, motives, goals) have to become the system-forming conditions for creating the model of students' personal and professional development based on the reflexive approach in dynamic synergistic space with active (rigid and flexible) feedbacks. The main conceptual idea of the study is that instant identification and awareness by teachers and students of the real psychological tendencies taking place during studying, as well as the use of the corrective measures for the factors that destructively affect students' learning activity and professional development, will facilitate combining the perspectives of personal and professional development, improving the efficiency and effectiveness of learning and their professional development while implementing the personal trajectory of life-long learning success.

Keywords: *educational model of personal and professional development; educational and information environment; professional subjectivity; educational paradigm; reflexive approach; feedbacks; critical thinking; reflexive culture; subjects of the educational process of a technical university.*

Introduction. The creation of the global educational network, reflexive and information synergistic approaches as a systemic reform of a technical university at European and national levels have required identification and substantiation of the problem of specialists' personal and professional development during professional training as a system process of purposeful personal changes of students and teachers at technical universities.

The dramatic changes occurring in the modern educational and information environment of the technical university have led to the need for scientific reconsideration and solution of the problem of future specialists' professional training, consideration of the educational system in a coherent unity of education and personality development to create a structurally critical image of the external world and provide conditions for developing a specialist as a subject of professional activity while learning.

The prevailing knowledge-based and technological paradigms of organizing the educational process at university show that the competency-based approach even with its indisputable methodological significance has not been didactically elaborated (for instance, there is no clear methodology for assessing the level of development of students' specific competences; students' learning achievements are still measured by skills and abilities without taking into account their traits). These aspects require organizing the modern system of professional training at technical university on the basis of the innovative and prospective model of society development with the following main features: the creation of the educational and information environment of a technical university to optimize its integration into the global information space; the transition from a process approach to a reflexive and productive one, which provides training of the specialist able to adapt to rapid changes in the labour market and solve multifunctional problems competently, responsibly and without assistance, as well as ready for continuous personal and professional development, social and professional mobility in terms of life prospects and basic personal values.

Thus, the professional training of future specialists as a system process of personality changes can be considered as forming a special way of interaction with the external environment, the core of which is the future professional activity.

The current training at technical university is known to be focused mainly on the subject-based approach without taking into account the psychological processes of student's personal and professional development. Therefore, it creates a process in which the activity components are crucial, reflecting only the knowledge component of the professional competence of future specialists. However, such a structure and content of training caused by insufficient attention to the tendencies of team-building in academic groups and intergroup relations, as well as ignoring students' individual characteristics during learning, create the so-called context-algorithmic world vision and reflect only the current state of the educational environment but not global information and synergistic space that includes indefinite tasks, problems, hypotheses and variable axioms. As a result of such training, future specialists feel a lack of the ability to be independent in problem-solving and research while obtaining productive knowledge and developing integrated skills, as well as a lack of their responsibility in personal project activity, which systematizes and forms the components of future effective professional activity.

Therefore, the most topical issues of professional training of future specialists at technical university requiring further study and solution are as follows: the development of students' independence; special features of students' adaptation to new conditions of life; conditions of personal and professional development during professional training at technical university; formation of personal and social maturity; value orientations and correlation of internal and external motivation to learn; and the conflicts in the educational process of a university.

The above-mentioned problems of students' professional training indicate the importance of developing the psychological component in the activity of higher technical education, however, not in the form of an academic subject for students but the psychological substantiation of the content and organization of learning. Today, students' motivation to get high-quality education is not analyzed, their self-criticism and ability to identify and be aware of the psychological problems in learning and interpersonal relationships are not developed.

Thus, the main task of the educational activity of the university – i.e. the formation of the specialist's professional subjectivity, the main features of which are dynamism, independence, responsibility, progress, ability to lifelong learning – is not solved.

Despite the multidimensionality of the studies devoted to the personal and professional development of future specialists (V. Verbytskyi, O. Volkova, O. Derkach, M. Diachenko, L. Kandybovych, E. Kuzkova, E. Luzik, T. Olkhova, V. Semychenko, A. Stoliarenko, etc.) quite a lot of problems have not been solved yet. One of them is resolving contradictions between: the need to create a flexible open pedagogical system of continuous training of future specialists in the dynamic educational space complying with the synergistic laws and the lack of feedbacks required for organizing and correcting the educational process; the functioning of the modern educational and cognitive environment of a technical university along a spiral curve in the coordinate system, including informational component (knowledge and skills), developing component (inclinations, abilities), educational component (needs, motives, goals) and the technologies combining these components into the integrated psychological and pedagogical system; the need to monitor, plan and forecast an effective educational process and outdated methods for assessing productive knowledge and integrated skills (competences) of future specialists; defining the goals and competences of different levels of educational systems depending on the ratio of subject-specific, cognitive and educational tasks (E. Luzik, 2012).

Insufficient elaboration of the theory and practice of solving these problems as well as their obvious relevance, social and pedagogical significance and the need to resolve the above-mentioned contradictions have caused the choice of the theme of the study: "Organizational principles of implementing the model of future specialists' personal and professional development in the educational and information environment of a technical university".

The purpose of the study is to substantiate theoretically, elaborate and experimentally verify the model of personal and professional development of the students of technical universities based on the reflexive approach.

The object of the study is the process of professional training of future specialists in the educational and information environment of technical universities.

The subject of the study is elaborating the model of future specialists' personal and professional development based on the reflexive approach and its implementing in the educational process of the technical university.

The main tasks of the research are:

1) to analyze the state of problem elaboration at the theoretical and methodological level.

2) to determine the structure and content of the model of future specialists' personal and professional development based on the reflexive approach.

3) to verify experimentally the necessity and sufficiency of implementation of the model of future specialists' personal and professional development based on the reflexive approach.

Methods of the research. To solve the tasks of the study, a set of general scientific and special methods was used: *theoretical methods* (the analysis of scientific and methodological psychological and pedagogical literature) were used to clarify the theory of the problem of higher professional education; *conceptual and terminological methods* – to give a general description of the reflexive approach in the educational and information environment of a technical university; *pedagogical modeling* – to elaborate a model of personal and professional development of a future specialist; *empirical methods*: pedagogical experiment – to test the effectiveness of implementation of the model of personal and professional development of future specialists as subjects of the educational process at technical university based on the reflexive approach, questionnaires, diagnostics, conversations – to determine the effectiveness of implementing the procedures of reflexive analysis and self-analysis into the educational process; *the methods of mathematical statistics*: statistical processing of the obtained data and graphical representation of the results to show the probability of the effective functioning of the model of future specialists' personal and professional development while studying at technical university.

The experimental study was conducted from 2018 to 2020. Different stages of the study involved practical psychologists of the Faculty of Linguistics and Social Technologies, i.e. the students whose process of professional training must entirely rely on the critical awareness of the psychological features and implementation of reflexive procedures. The experiment included: 34 first-year students, 28 second-year students, 10 third-year students, and 16 fourth-year students.

The empirical study was conducted to identify the extent to which the learning process of modern students is encompassed by their reflexive procedures and to check if this ability develops under traditional learning conditions. It was based on the set of project tasks aimed at characterizing the educational process and student activity in it through three categories: "Must", "Want", "Can". Each category suggested at least 10 responses. The first category was expected to reflect students' perceptions of the normative component of their actions controlled by external forces. The second category allowed identifying the components of the educational process that are desirable for them. The third category enabled to determine students' opinions about the events in their life they take responsibility for, i.e. to characterize indirectly the possibilities of displaying their subjectivity in the particular educational system.

To obtain the initial results that were analyzed by the content analysis, the responses were grouped by the following semantic blocks: 1 – normative educational actions; 2 – establishing interaction with others subjects of the educational process; 3 – professionally significant achievements; 4 – self-organization; 5 – learning outcomes; 6 – meeting students' vital needs; 7 – proposals for the external organization and conditions of the educational process; 8 – tips for teachers; 9 – proposals for organizing the educational process; 10 – the total number of responses. Categories: M – Must, W –Want, C – Can. The content analysis was divided into two parts:

a) distribution of responses by the selected semantic blocks;

b) differentiation of responses within each block.

Results. The study results are shown in Tables 1, 2, 3, where they reflect the overall structure of the responses, i.e. the division of responses by blocks in the percentage of the total number of responses for each group (Table 1).

Table 1

		1	2	3	4	5	6	7	8	9	10
N	I	24,1	5,4	2,5	23,6	4,9	1,7	20,7	9,9	12,3	203
	II	-	4,2	5,3	-	-	0,1	30,6	8,1	50,7	284
	III	16,1	6,5	3,2	4,8	-	6,5	17,7	12,9	32,3	62
	IV	27,9	8,9	7,8	20,0	8,5	13,9	4,8	3,0	6,1	165
W	I	5,7	4,4	6,3	8,9	12,7	19,0	11,4	6,9	24,7	158
	II	0,1	5,6	6,3	0,1	-	11,6	16,9	8,1	50,7	284
	III	-	5,1	10,3	17,2	-	3,4	17,2	8,6	37,9	59
	IV	9,8	7,5	15,0	15,8	12,9	19,5	7,5	0,8	11,3	133
C	I	31,5	11,0	3,9	32,3	11,0	7,8	1,6	0,8	-	127
	II	35,6	24,0	7,7	27,9	-	2,9	-	-	1,9	104
	III	33,3	4,8	4,8	28,6	-	19,0	-	-	9,5	21
	IV	25,0	9,0	13,0	16,9	40	29,0	1,0	1,0	2,0	100

Table 2 shows the distribution of responses by years of study, which allows the ratio of major categories in each block to be clearly identified (Table 2).

Table 2

		1	2	3	4	5	6	7	8	9	10
I	N	24,1	5,4	2,5	23,6	4,9	1,7	20,7	9,9	12,3	203
	W	-	4,2	6,3	8,9	12,7	19,0	11,4	6,9	24,7	158
	C	31,5	11,0	3,9	32,3	11,0	7,8	1,6	0,8	-	127
II	N	-	4,2	5,3	-	0	0,1	30,6	8,1	50,7	284
	W	0,1	5,6	6,3	0,1	-	11,6	16,9	8,1	50,7	284
	C	35,6	24,0	7,7	27,9	-	2,9	-	-	1,9	21
III	N	16,1	6,5	3,2	4,8	-	6,5	17,2	12,9	32,3	62
	W	-	5,1	10,3	17,2	-	3,4	17,2	8,6	37,0	58
	C	33,3	4,8	4,8	28,6	-	19,0	-	-	9,5	21
IV	N	27,9	7,9	7,9	20,0	8,5	13,9	4,8	3,0	6,1	165
	W	9,8	7,5	15,0	15,8	12,8	19,5	7,3	0,8	11,3	133
	C	25,0	9,0	13,0	16,0	4,0	29,0	1,0	2,0	2,0	100

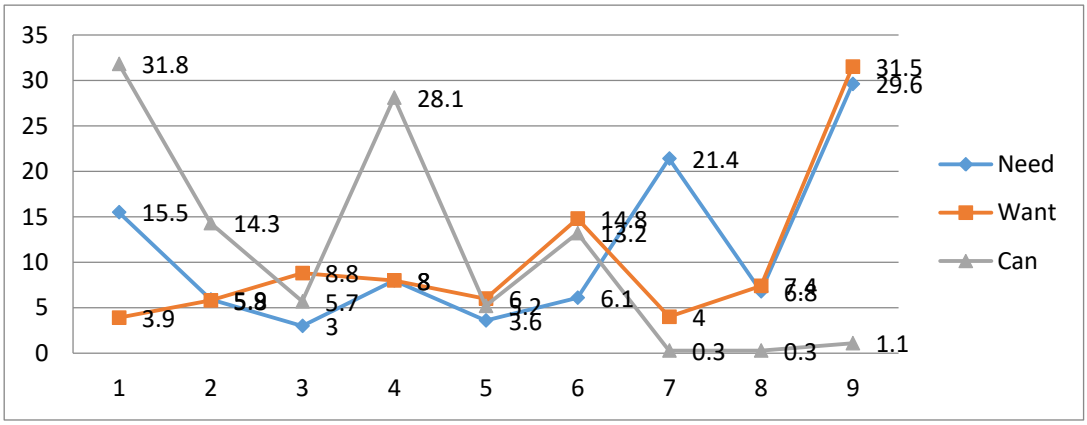
The data from Tables 1 and 2 show significant contradictions in the students' subjective perception of the educational process, the awareness of their desires and preferences, and opportunities for self-realization at technical university.

Unlike Tables 1 and 2 focused on the detection of the dynamics from year to year, Table 3 shows generalized results and distribution of responses by categories and blocks (Table 3).

Table 3

Category	**Indicators**	**Semantic blocks**								
		1	2	3	4	5	6	7	8	9
Need	%	24,1	5,4	2,5	23,6	4,9	1,7	20,7	9,9	12,3
	X- average	-	4,2	6,3	8,9	12,7	19,0	11,4	6,9	24,7
	rank	31,5	11,0	3,9	32,3	11,0	7,8	1,6	0,8	-
Want	%	-	4,2	5,3	-	0	0,1	30,6	8,1	50,7
	X- average	0,1	5,6	6,3	0,1	-	11,6	16,9	8,1	50,7
	rank	35,6	24,0	7,7	27,9	-	2,9	-	-	1,9
Can	%	16,1	6,5	3,2	4,8	-	6,5	17,2	12,9	32,3
	X- average	-	5,1	10,3	17,2	-	3,4	17,2	8,6	37,0
	rank	33,3	4,8	4,8	28,6	-	19,0	-	-	9,5

Adding the average number of responses to a block per one participant assisted in overcoming the drawback of percentage distribution of the responses, which usually does not take into account the number of participants taking part in the study, as well as it allowed us to present the results with a clearer identification of the general tendencies by both indicators (the graph of the distribution of total responses by blocks (Fig. 1-2)).



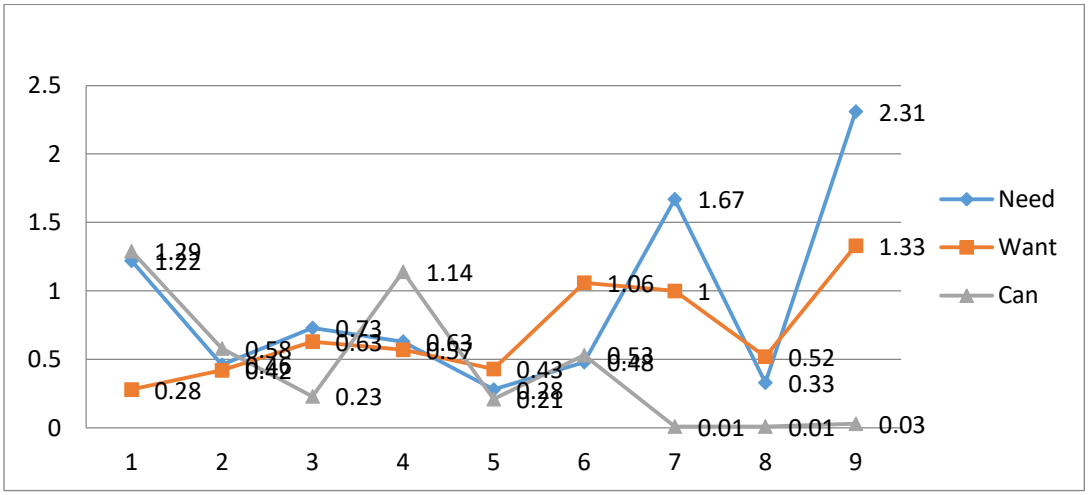


Figure 1-2. The graph of the distribution of total responses by blocks

To confirm that both indicators express the same tendency, the *Spearman's rank-order correlation coefficient was applied in the study.*

Thus, it has been empirically confirmed that in the current system of education, students do not feel as full-fledged subjects of the educational process in the educational and information environment of the university, able to influence vital events. Moreover, students do not always have the desire (motivation) to affect this process. To increase the effectiveness of future specialists' professional development, the educational process must be carried out on the basis of the reflexive approach, which will promote awareness by students.

Discussion. In order to prove the idea mentioned above, we will analyze the following obtained results.

Table 1 shows that the majority of the responses given by the first-year students in category "Must" are in blocks "Normative educational actions" (24.1%), "Self-organization" (23.6%) and "Proposals for the external organization and the conditions of the educational process" (20.6%). Basic learning outcomes and meeting the current vital needs of students are not mentioned. The attention of the second-year students was shared between such positions as "External organization of the educational process" (31.9%) and "Proposals for organizing the educational process" (50.7%), i.e. the focus of the second-year students is shifted towards critical consideration of the training organization. The third-year students have slightly increased attention to current vital needs (6.5%); most of the responses accounted for the tips for the training organization (42.3%). The fourth-year students preserve the attention to normative educational actions (27.9%) and their response rate in "Self-organization" block is 20.0%.

The obtained responses in Table 1 for category "Want" show that the students have the poor motivation to learn (1 year – 5.7%; 2 year – 0.7%; 3 year – 0%; 4 year – 9.8%). The following responses indicate the desire to obtain professionally important achievements (1 year – 12.7%; 2 year – 0%; 3 year – 0%; 4 year – 12.8%), which denote the absence of focus on learning outcomes: neither current (achievement of educational results), nor strategic (obtaining the diploma, the prospect of becoming a good specialist). The responses in block "Proposals for organizing the educational process" are as follows: (1 year – 24.7%; 2 year – 51.5%; 3 year – 0%; 4 year – 11.3%). The consideration of the results by category "Can" has created a potential opportunity to determine whether students feel like subjects of learning. Thus, the students of all years of study noted that they could carry out normative educational actions best of all, which did not require their initiative, but were the results of external disciplinary requirements (1 year – 31.5%; 2 year – 37.9%; 3 year – 33.3%; 4 year – 25%). Thus, the obtained results in Table 2 reveal the correlation and contradictions in each block. The obtained data confirm significant contradictions in the subjective perception of the educational process by students, their awareness of desires and preferences, and opportunities for self-realization at technical university.

The differences in the ratios of the selected categories are shown visually in Table 4 due to the generalized data of the number of the responses given by the participants of the study in all categories (Table 4).

Table 4

Category	Training courses								
	I		II		III		IV		total
	number of answers	%	number of answers	%	number of answers	%	number of answers	%	number of answers
Need	173	37,8	273	40,0	62	44,0	165	41,4	673
Want	158	34,5	307	44,9	58	41,1	133	33,3	656
Can	127	27,7	103	15,1	21	14,9	101	25,3	349

Figure 3 shows these tendencies in a visual form.

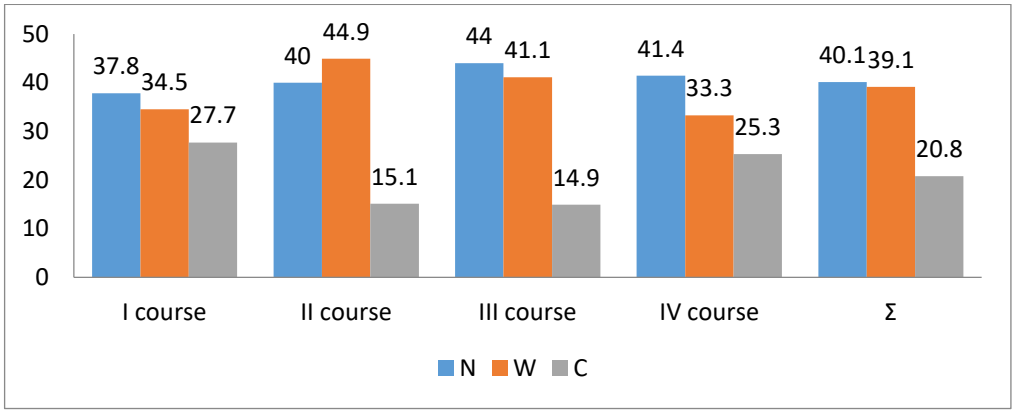


Figure 3. Distribution of answers by categories "Course dynamics"

After confirming the fact that in the educational and information environment of the current system of professional training at technical university a student does not feel like a full-fledged subject of the educational process, able to affect the vital events, we have understood the urgent need for finding the ways to overcome these problems.

World experience shows that the reflexive approach has significant prospects in this regard (Stone, 1984; Roman, 1993; Hunter, 1982). A reflexive approach is the creation of such conditions in the educational process when the its participants understand the professional and personal activities of each component, control their activity, determine the external and internal factors contributing to the increase of efficiency and quality of personal and professional development, identify and correct factors impeding or distorting the achievement of vital results. A continuous research activity takes place and ensures the inclusion of students in the educational process of a technical university where the objects of research are both external and internal conditions and determinants of students' educational activity.

The areas* for *further research. Since the effectiveness of the reflexive approach cannot be restricted by introducing certain reflexive procedures as normative elements of the educational process, we have developed a theoretical and conceptual model. This model serves as the methodology for selecting and implementing certain actions, provides the systematic-synergistic nature of the training and educational events, directing the activities of both teachers and students for effective interaction. The purpose of this interaction is the result of the system of personal and professional development of future specialists during professional training at technical university, i.e. the formation of a successful specialist both as an expert and as a citizen (Ogle, 1986; Joyce, 1986; Elliot, 1977; Perkins, 1981).

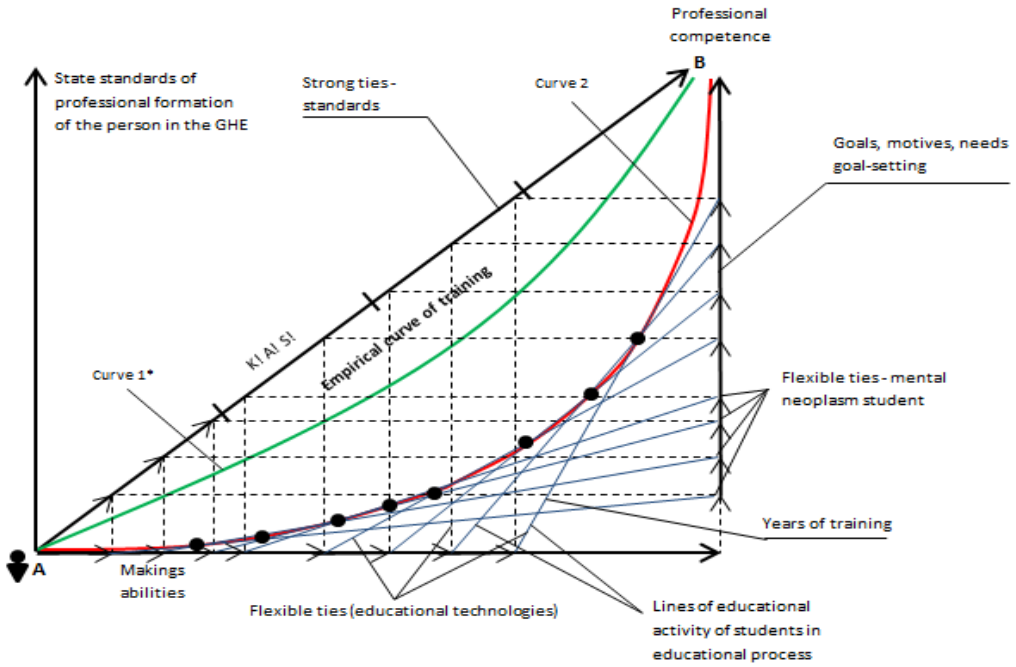


Figure 4 . Model of the components of the educational process and the dynamics of their implementation

The graph of this model visualization presented in the figure, shows the main components of the educational process of a technical university and the dynamics of their implementation.

The coordinate axis (Fig. 4) shows the state standards of professional development of specialists at technical university as a basic stable template (standard) to which all the participants of the educational process of a technical university must tend to. Let us draw another conditional axis representing the professional competence of the graduate as a beginner specialist in parallel to the first axis. The second axis can also be expressed in the form of a certain standard, but it does not fully coincide with it. The standard is a fixed requirement for quality, the professional competence is the result of the relevant process which is fulfilled at technical university and includes different active subjects:

1) *the administration of a technical university*, controlling the correspondence of the activities of other participants to present standards. In Figure 4, it is a straight line AB, which shows the normative, linear path of movement of the student over the years displayed on the X-axis. This linearity indicates not only the standards provided by the MESU (the Ministry of Education and Science of Ukraine) but also the normative base, created inside the university, that is obligatory for other participants of the educational process;

2) *the teachers* whose task is to find and implement the techniques, methods, technologies for training students from the zero point of professional competence (point A) to full-fledged professional competence (point B) which corresponds to the social expectation in the form of quality standards of preparation (Fig. 4). This activity cannot be represented by a linear dependence, because its implementation is caused by the factors which are not always in the power of the teacher:

- inclinations and abilities of students;
- the nature of their goal-setting;
- the structure of the motivational sphere (both the teacher and the student);
- the necessity to combine the process of student's personal and professional development;
- real-life conditions (the need to combine study and work);
- student groups' norms and values;
- spread of stereotypes of students' behaviour in society.

Moreover, the teacher's special features have influence as well: the motives of professional activity; the availability of pedagogical abilities; the awareness of pedagogical technologies; a style and personal qualities; professional deformations etc. The complicated nature of the teacher's activity is shown in Figure 4 in the form of an empirical learning curve (Curve 1 in Fig. 4), reflecting a certain compromise between regulatory requirements, individual teacher's abilities and the degree of consideration of students' characteristics;

3) *the students* involved in the educational process in compliance with their characteristics, social expectations and the chosen life priorities, as well as the degree of perception of teacher's values and actions as significant, authoritative people and as those who demonstrate the model of professional activity. The

interaction of these factors shows a real curve (individual trajectory) reflecting the student's way while acquiring professional competence (Curve 2, Fig. 4).

Based on the model of the traditional system of professional training at technical university, the process of personal and professional development can be regarded as the combination of the functioning of two systems: stable and controlled system (Curve 1) and synergistic system (Curve 2), which characterizes the activity of the teacher and the student and contains a lot of self-management elements (Fig. 4). Therefore, the actual transition of the system from the initial state (entry to the technical university) to the specified final state (graduation from the university) is always influenced by two main factors: the information factor setting the direction of movement and the synergistic factor providing a driving force. The reduction of the impact of the driving force results in the stabilization and even the stagnation of the educational system. Then the motion mode and the extension of the system transition from the initial to the final state are determined only by information factors. In the conditions of the organic combination of information (controlled from the outside) and synergistic (self-controlled) components, the curve at which the movement of the system from a given position to target in the shortest time is called the Selye-brachistochrone curve (Fig. 5).

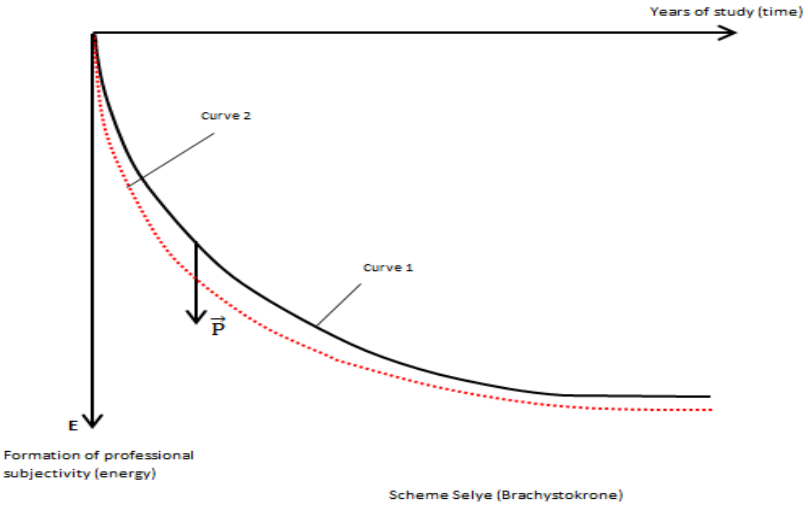


Figure 3 - Cycloid of the success of the educational process of forming the professional subjectivity of the future specialist

Figure 5. Selye-brachistochrone curve

This curve has the shape of a hypocycloid, along which the point of a circle goes; this point rolls without internal slipping in a circle with a larger radius.

In our case, such a circle is represented by society as a whole, which sets both effective and procedural guidelines for universities.

The task of elaborating the model of future specialists' personal and professional development will be the appropriate pedagogical technologies that will help find a curve that would connect point A (objectivity) and point B (subjectivity) and reflect the ability of the system to perform the necessary movement in the shortest time. Theoretically, this process is represented by Curve 1 in Figure 4. In fact, the transition of the participants of the educational process to professional subjectivity, built on the principles of the reflexive approach, will look like Curve 2 (Fig. 4 and 5).

The algorithm of constructing such a curve, anticipating the change of role positions (the nature of both the teacher and the student) can be represented by the following functions:

1. To define clearly the place and significance of the academic subject in the curriculum of professional training and learning (a teacher is a director or a supervisor).
2. To model didactically the goals, structure and educational activities contained in the context of strategic and tactical objectives of a technical university (teacher's design and project activities).
3. To use innovative technologies for organizing the information and activity educational environment based on the reflexive approach, contributing to the personal and professional development of the student as the main subject of the educational process (the teacher acts as a tutor and a technologist).
4. To determine the scientifically grounded and clearly formulated criteria for assessing the formation of productive knowledge, integrated skills, key and professional competencies, readiness for professional activity, professional and socially important personal qualities (the teacher's role is an expert).
5. To elaborate and implement the model of personal and professional development of students of technical universities based on the reflexive approach (Fig. 5, Curve 2).

Conclusions.

1. The traditional system of professional training at technical university, reflecting the knowledge component of professional competence without sufficient attention to the team-building trends in academic groups and intergroup relations and ignoring students' characteristics during learning, forms the so-called context-algorithmic world vision. Thus, it reflects the current state of the educational environment, rather than a global information-synergistic space with indefinite tasks, problems, hypotheses and variable axioms.

2. There are the following main problems of traditional professional training of future specialists at technical university: the development of independence, the features of students' adaptation to new conditions of life; the conditions of personal and professional development while studying at technical university; the formation of personal and social maturity, value orientations and correlation of internal and external motivation in learning.

3. The main contradictions of future specialists' professional training system at technical university are between:

- the need to create a flexible open pedagogical system of continuous training of future specialists in the dynamic educational space complying with the synergistic laws and the lack of feedbacks required for organizing and correcting the educational process;
- the functioning of the modern educational and cognitive environment of a technical university along a spiral curve in the coordinate system, including informational, developing, an educational component and the technologies combining these components into the integrated psychological and pedagogical system;
- the need to monitor, plan and forecast an effective educational process and the outdated methods for assessing productive knowledge and integrated skills (competences) of future specialists;
- defining the goals and competencies of different levels of educational systems depending on the ratio of subject-specific, cognitive and educational tasks.

4. The creation of the World educational network, labour market and dramatic changes taking place in the modern educational and information environment of a technical university, require considering the educational system in a coherent unity of education and personality development to create a structurally critical image of the external world and provide conditions for developing a specialist as a subject of professional activity during studying.

5. The main task of the educational activity of the university is the formation of the specialist's professional subjectivity, the main features of which are dynamism, critical thinking, independence, responsibility, progress, and the ability to lifelong learning.

6. The effectiveness of a technical university work as a system, caused by complex relations between the main subjects of this process (the administration, teachers, students) can be achieved only with proper harmonization, which depends on two equally significant systems – the stable one which is controlled externally, and the synergistic formation, the activity of which is caused by self-organization mechanisms.

7. The process of personal and professional development will be successful if the following conditions are provided in the educational process of the technical university based on the general model of personal and professional development, determining the fundamental changes of the teacher's position and function: students' targeting on the organic combination of personal and professional development; using the problem-based learning with project technologies; implementing the principles of role prospects; organizing trainings on self-organization of learning and self-study; developing skills of professional and personal self-analysis; using innovative learning; aiming of students at forming a subjective position not only concerning the current activity but also a long-term life perspective.

СПИСОК ПОСИЛАНЬ

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ОРГАНІЗАЦІЙНІ ЗАСАДИ ПОБУДОВИ ТА РЕАЛІЗАЦІЇ МОДЕЛІ ОСОБИСТІСНО-ПРОФЕСІЙНОГО СТАНОВЛЕННЯ МАЙБУТНЬОГО ФАХІВЦЯ В УМОВАХ ОСВІТНЬО-ІНФОРМАЦІЙНОГО СЕРЕДОВИЩА ЗАКЛАДУ ВИЩОЇ ТЕХНІЧНОЇ ОСВІТИ

Резюме

Дослідження присвячено вирішенню проблеми професійної підготовки майбутніх фахівців в ЗВТО як системного процесу цілеспрямованих особистісних змін в процесі навчання для реалізації студентами повноцінної суб'єктної позиції протягом життя. Застосування в освітньо-інформаційному середовищі закладу вищої технічної освіти (ЗВТО) нової мисленнєво-діяльнісної парадигми сприяло формуванню у майбутнього фахівця певного типу свідомості, який найкращим чином має реалізувати зміст майбутньої професійної діяльності на основі рефлексивного підходу для побудови та реалізації моделі особистісно-професійного становлення майбутнього фахівця в умовах освітньо-інформаційного середовища закладу вищої освіти. Виокремлення найбільш актуальних проблем професійної підготовки майбутніх фахівців ЗВТО підтвердило думку науковців, що із навчальної діяльності сучасної освітньої системи фактично виключено психологічну складову, що призвело до мотиваційного компоненту в отриманні якісної освіти; несформованості критичного ставлення студента до себе; нездатності студентів своєчасно виявляти і вирішувати психологічні проблеми міжособистісних відносин в освітньому процесі. Саме тому суб'єктивні характеристики особистості студента (розвиток особистості та його психічні новоутворення (потреби, мотиви, цілі)) мають стати системоутворювальними умовами побудови авторської моделі особистісно-професійного становлення суб'єктів навчального процесу ЗВТО на засадах рефлексивного підходу в динамічно-синергетичному просторі при наявності діючих (жорстких і гнучких) зворотних зв'язків. Основна концептуальна думка дослідження полягає в тому, що своєчасне виявлення та усвідомлення як викладачами, так і студентами реальних психологічних тенденцій, що реалізуються у процесі навчання, доведення необхідності використання корекційних заходів щодо чинників, які деструктивно впливають на навчальну активність і професійне становлення студента, будуть сприяти поєднанню перспектив особистісного і професійного

розвитку, підвищенню ефективності і результативності навчання та їх професійного становлення в реалізації особистісної траєкторії успішності навчання протягом життя.

Ключові слова: *освітня модель особистісно-професійного становлення; освітньо-інформаційне середовище; професійна суб'єктність; освітня парадигма; рефлексивний підхід; зворотні зв'язки; критичне мислення; рефлексивна культура; суб'єкти освітнього процесу закладу вищої освіти.*