

*educational environment is not sufficiently innovative in terms of forming the professional competence of future specialists; the content of disciplines is supplemented with practical tasks that partially ensure various aspects of forming the professional competence of future bachelors in railway transport.*

*It is mentioned that the article can serve as an important theoretical basis for further research in promising directions such as: studying the peculiarities of professional thinking and behavior of future bachelors in railway transport in conditions of dynamic transformations in the modern economic sphere; developing and implementing electronic educational resources and building an information educational environment in their preparation; summarizing and comparing domestic and foreign experience of models of professional training for future bachelors in the mentioned specialty.*

**Key words:** *professional competence, professional training, future bachelors in railway transport, general and professional competences, dual form of education.*

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## **STAGES OF FORMATION OF THE EARLY PROFESSIONAL IDENTITY OF FUTURE TEACHERS USING DESIGN AND TRAINING TECHNOLOGIES IN THE SYSTEM OF PROFESSIONAL AND PEDAGOGICAL TRAINING OF INSTITUTIONS OF HIGHER EDUCATION**

*The article highlights the peculiarities of the stages of formation of personal identity, social identity, professional identity, reveals the non-linear nature of the specified process, which is characterized by crisis states, regression in identity changes. The stages of the structural-functional model of the formation of the early professional identity of future teachers (EPIFT) are substantiated, which ensure the development of the individual and social nature of identity and the formation in students of a sense of belonging to the teaching profession, the image of the profession, the image of a professional, the development of the skills of future teachers to determine plans for the professional future and methods of their implementation, professional and pedagogical reflection and understanding of the experience gained in the context of personal, professional and life goals.*

**Key words:** *higher education, identity, identity crisis, teacher's professional training, early professional identity of the future teacher, stages of development of the future teacher's identity, educational and scientific pedagogical project, school and university project.*

**Formulation of the problem.** The problem of the professional identity of an individual is an important subject of research in various fields of humanitarian knowledge. The professional identity of the future specialist is a system-forming property of the individual and ensures self-acceptance as a professional, motivation for professional development, quick adaptation to new conditions of professional activity, and becomes an internal source of professional and personal growth. The future teacher's emotional and

positive acceptance of his belonging to professional training at the early stages of professional training ensures a thorough, more conscious mastery of the profession, the future teacher's activity in professional formation, building prospects for professional self-development.

**Analysis of current research.** In recent decades, the investigated problem has become the subject of increased attention of such foreign scientists as N. Allen, R. Bogler, A. Hoffmann, M. Graunier, A. Huberman, S. Day, G. Kelchtermans, A. Kington, G. Philippou, V. Chen, S. Cherelembouz and others.

The professional identity of a teacher is considered by scientists in the context of the psychology of personality development (I. Beh, G. Bordovskyi, I. Icaev, O. Kochkurova, S. Maksimenko, A. Mudryk, K. Torop, V. Shadrykov, L. Shneider, etc.) ; psychological features of the formation of a teacher's professional identity are presented in the scientific studies of such researchers as O. Anicimov, V. Davydov, M. Kashapov, M. Pavlyuk, etc.; problems of the formation of the teacher's professional identity are considered by scientists M. Abdullayeva, G. Garbuzova, V. Galuzyak, O. Yermolayeva, N. Ivanova, I. Vachkov, O. Hrynyova, N. Hoga, O. Ishchuk, M. Klishchevska, V. Koziyev, A. Lukiyanchuk, O. Romanyshina, M. Savchyn, V. Safin, M. Sherman, V. Yakunin and others.

E. Erikson notes that "the process of identity formation does not end at a young age. In the epigenetic diagram, E. Erikson distinguishes eight stages of identity development, each of which has its own central problem that requires a solution" (Ericson, 1960, p. 53).

D. Matteson introduced the concept of "multiphase crisis". He investigated and determined that in different areas of life, identity develops and goes through crises in different ways (Matteson, 1975). Similar conclusions were made by J. Coleman (Coleman, 1974). He discovered that different spheres of life reach the peak of crisis at different ages of a person. Human life is considered in the context of identity as a way to overcome identity crises of different content. Getting out of the crisis involves making efforts to choose and accept new beliefs, values, and activities.

According to A. Waterman's model, the sense of achieved, stable identity is temporary, from time to time it is replaced by a state of instability, non-identity. This process is preceded by changes in goals, values, and beliefs, namely, the weakening of their significance in a person's life situation, which is the result of the inconsistency of existing ideas with the new requirements of life (Waterman, 1992). In A. Waterman's model of

identity formation, the defined process is not linear, it can have a reverse direction, that is, it can go into a state of uncertainty, crisis, conditioning, and diffuseness. Even "having an achieved identity, a person can again enter into a crisis and his identity will return to a diffuse state" (Waterman, 1982).

Waterman's reasoning is also supported by the researcher N. Antonova, who believes that a person's sense of achieving identity is destroyed as a result of the fact that the goals, values and convictions in the personality's arsenal, which it used for a long time, lose their vitality, cease to meet changed requests, needs, requirements of society or the individual. The process of resolving the crisis becomes important, because if self-definition is avoided, a person loses the chance to achieve a sense of identity (Antonova, 1996).

Investigating professional identity in the context of N. Pezeshkian's positive psychotherapy, V. Karikash (Karikash, 2009, p. 16) points out that there are special rather long periods in a person's life, in which existential identity largely begins to determine the dynamics of his life the script He singles out 5 such periods - "5 peaks of destiny": I am the son (daughter) of my parents, I am the man, I am the father, I am the person, I am part of the universe (Karikash, 2009, p. 18). Considering the path of professional maturity of a psychotherapist, V. Karikash points out that it "is not a linear process, it goes through a series of successes and existential crises, the so-called "Five peaks of destiny"" (Karikash, 2009, p. 20). The first stage is "I am a small part of a large professional community." At this stage, a sense of belonging to a larger significant figure is important, which allows to reduce the anxiety of lack of experience and to feel involved in a big cause, and identification with the leaders of a large community - to feel safe and protected: "I am less than We and I am OK with this." The second stage - I am self-sufficient, independent. According to the degree of mutual agreement, there are five successive levels in interaction with colleagues: competition, ignoring, information exchange, project cooperation, institutional cooperation. The third stage of professional identity formation is "I am part of a small but sincere professional family." At this stage, the professional feels confident, well aware of the relationship between his own self and the professional self. There is a need for professional cooperation with like-minded people. The fourth stage is "My colleagues and I are a professional community." At this stage, relations with one's professional family can be preserved, but the desire for professional development and establishing relations with representatives of other professional communities is not limited. The fifth stage presents a person as a professional who is a part of

the socio-cultural space of today. At this stage, the humanistic mission of the profession chosen by the individual is realized and one realizes one's responsibility for the future of humanity" (Karikash, 2017).

Within the theory of social identity, A. Tajfel (1982) and D. Turner (Turner, 1985) identified the following stages in the formation of social identity: the first is the social categorization of the individual, which is the recognition of oneself as a group being, the identification of the components of the social structure of the environment, the world as a whole ; the second - group choice, during which a person chooses a reference community, gets acquainted with its values, norms, rules, features of the internal interaction of community members; the third - group identification, which is characterized not only by cognitive processes, but in most cases by the feeling of one's own identity with the group, unity of values, norms, acceptance of the structure of the group, identification of a person with this group occurs.

From the standpoint of differential psychology, D. Super singled out the following stages (phases) in a person's professional development: the child's awareness and identification of himself with his immediate environment; studying the peculiarities of the world of professions by playing roles; determination of professional priorities; testing oneself in the profession; acquisition of professional skills; formation of a sustainable professional priority; preservation of acquired professional experience and status; completion of the professional path, exit from the profession (Super, 1957).

In the psychological and pedagogical literature, there is ambiguity regarding the beginning of the formation of a professional identity, the peculiarities of the completion of the formation process. As the researcher O. Andrievska-Semenyuk notes, the beginning of the formation of professional identity can be considered adolescence, the so-called opting period (the stage of choosing a future profession), then it clearly develops precisely during the period of obtaining an education at a higher (or professional) school (Andrievska-Semenyuk , 2020). Our research indicates that the desire to be a teacher in 15% of respondents appeared earlier than adolescence, began to change, but really took shape at the stage of choosing an institution for admission.

According to the definition of I. Sokolova, the professional identification of a future specialist during the period of study is "a gradual process of correlating the student with professional, social and personal ideals (images of a professional, person, citizen), forming in him a valuable

relationship to professional activity and awareness of his own individuality" (Sokolova, 2013). The author emphasizes that this process has positive consequences only if the student strives for professional self-realization, self-improvement, high results and performance of professional activities at a high level of mastery, success in various spheres of life. Professional identification of a future specialist is a process of forming a sense of community, identity with a professional group as a certain grouping.

A. Tajfel (Tajfel, 1982) identified the following stages of professional identity formation within the framework of socio-psychological research: the stage of social categorization (arrangement of the social environment in a way that makes sense for the individual); the stage of social identification (the process of a person moving himself into one or another category); stage of social identity (full social identification).

The analysis of scientific work in the field of personal and professional identity development made it possible to identify the stages of implementation of the model of professional identity formation of future teachers.

**The purpose of the article:** to investigate the stages of development of personal, social, and professional identity, to characterize the stages of formation of the early professional identity of future teachers in the system of professional and pedagogical training of future teachers.

**Research methods.** To achieve the goal, the following methods of psychological-pedagogical research were used: theoretical - categorical-terminological and comparative-paradigmatic analysis - to substantiate the stages of the model of the formation of the early professional identity of future teachers by means of project-training technologies; comparison, generalization, systematization, systematic, structural and logical analysis - in order to determine the stages of formation and structural components of the early professional identity of future teachers; abstraction, synthesis; modeling - for the development and theoretical substantiation of a structural-functional model of the pedagogical system of forming the early professional identity of future teachers by means of project-training technologies; forecasting - to build the structure of the pedagogical system, clarify the relationships and integration of its components; empirical: interviews, questionnaires, surveys, observations, generalization of teachers' pedagogical experience, diagnosis, introspection, self-observation, method of analysis of activity products - for the purpose of experimental verification of selected stages of the pedagogical system of forming the early professional identity of future teachers by means of project-training technologies.

**Presentation of the main research material.** The generalization of the conceptual approaches presented in the study to distinguishing the stages of the formation of the professional identity of a specialist allows us to state that ideas about the future profession begin to be formed in childhood, sometimes under the influence of family professional values, change or develop at the stage of choosing a profession, and are transformed into real personal awareness in the process of professional training .

The main stage in the development of professional identity is professional training. In the process of mastering key professional competencies, a qualitative jump in the student's professional self-perception occurs. In the process of academic training, practical approbation of the acquired knowledge in the educational space of the school, the ideal ideas of the individual about the peculiarities of the profession, professional roles are transformed, thereby confirming the awareness of oneself as a representative of the profession.

The professional identity of the future teacher is special in that identification mechanisms are established in the learning process itself, in particular, in the process of students realizing a different role, changing the focus from "I study" to "I teach". During the period of academic training, the formation of basic identification characteristics begins, which highlight the internal personal attitude to a certain profession (Коваленко, 2021). As a result of these processes, there is an emotional positive (negative) acceptance of one's belonging to the professional community, awareness of oneself as a subject of professional activity.

In accordance with the developed structural-functional model, we implemented the pedagogical system of EPIFT according to the following stages: reflexive immersion, theoretical modeling, practical approbation, professional forecasting (Kovalenko, 2021).

The first stage of the introduction of the pedagogical system - reflexive immersion (Kovalenko, 2021) - provided for the development of reflexivity of future teachers, their autonomy, modeling of the image of the profession, introspection of one's own professional position, development of professional self-esteem, which became the tasks of training for the formation of professional identity, integrated into the content of the educational discipline. Pedagogy".

The practice-oriented content of the educational discipline and the joint definition with stakeholders of the content and forms of future professional activity during the period of educational pedagogical practice,

which are provided by the technology of ESPP, are aimed at the development of the autonomy of future teachers in making professional decisions, the formation of their subject position in professional activity.

The effectiveness of the mentioned processes was facilitated by the implementation of the first psychological and pedagogical condition - the development of reflexivity of future teachers in the corporate environment of a higher education institution. It was found that the interaction of students with teachers and teachers in the corporate environment of higher education and higher education institutions ensured the formation of professional decision-making skills, solving educational and professional tasks, professional motivation, and a positive attitude towards the profession. At the first stage of the formation of EPIFT, the integration of the study of the pedagogical discipline, the completion of educational pedagogical practice and the implementation of scientific pedagogical research was modeled and practically implemented, which provided for the implementation of the second psychological and pedagogical condition - the creation of a single educational and scientific pedagogical project (Коваленко ред. 2017, 2019, 2021 ).

The second stage of the introduction of the pedagogical system for the formation of EPIFT – theoretical modeling (Kovalenko, 2021) – provided for the formation of the content of the components of EPIFT in future teachers according to certain indicators: the formation of the image of the profession, the image of a professional, the development of professional self-esteem, motivation, and the attitude towards the profession of future teachers.

The stage of theoretical modeling was based on the creation by students of diagnostic methods, methodical development of educational activities for students, development in cooperation with practicing teachers, the administration of school of the system of educational activities in school (which made it possible to implement the third psychological and pedagogical condition - interaction of school and university at all stages of development and implementation of educational and scientific pedagogical project), approbation of materials in the student body, formation of pedagogical skills, solving educational and professional tasks.

The psychological-pedagogical analysis of pedagogical experience and reflective exercises applied in the training classes were aimed at students' awareness of their own professional position, integration of the

acquired experience, acceptance of oneself as a representative of a professional group, integration of professional values.

The third stage of the implementation of the pedagogical system - practical testing (Kovalenko, 2021) - provided for the implementation of a system of educational activities in school y within the framework of educational pedagogical practice and the analysis of their effectiveness.

Immersion of future teachers in professional activity, which was determined by the third psychological and pedagogical condition - the interaction of school and university at all stages of the development and implementation of the educational and scientific pedagogical project, contributed to the development of emotional and positive perception by the students of the professional group education, of pedagogical activity, own belonging to the professional community, made it possible to compare one's own professional expectations and professional roles and tasks.

It was established that the specified stage provided for the implementation of the first psychological and pedagogical condition, which was based on the inclusion of future teachers in the corporate environment of school. It was found that the system of values and norms of corporate behavior contributed to the integration of the established values of the educational institution into the students' own value orientations, the matching of the vision of professional activity, professional image, provided support by practicing teachers, acceptance by the professional group of future teachers.

The fourth stage of the implementation of the pedagogical system - professional forecasting (Коваленко, 2021) - was aimed at reflection of the professional experience gained by future teachers, analysis of changes in their professional identity and further construction of educational and professional plans, modeling of professional prospects.

Based on the understanding of the essence of the early professional identity of future teachers, the factors and features of its formation; principles of systemic (content unity of educational and professional tasks and control measures), competence (according to the provisions of which the criterion characteristic of competence is the effectiveness of educational attainment in professional activity), contextual (providing professional and personal meanings to educational content) approaches, reporting documentation on educational pedagogical practice and the course work on the pedagogical discipline were transformed, respectively, into a methodological publication, which is submitted as a result of the thematic



educational week in school to the student collection of methodological developments, and a scientific publication in a student monograph.

**Conclusions from the conducted research.** So, in the course of studying the peculiarities and stages of formation of personal identity, social identity, and professional identity, the non-linear nature of the specified process was revealed. The presence of crisis states is caused by a change in various components of a person's life situation, a change in life meanings, values, beliefs, goals and is a necessary condition for the formation of a new identity. Students' professional identity crises may be exacerbated or triggered by age-related personal identity crises. By singling out the stages of direct formation or the purposeful process of forming students' professional identity, the researchers reveal the possibility of a reverse direction in identity changes.

In our study, in accordance with the developed structural-functional model, the pedagogical system of EPIFT was implemented according to the following stages: reflective immersion, theoretical modeling, practical testing, professional forecasting. The stages of formation of the early professional identity of future teachers take into account the individual and social nature of identity and ensure the formation in students of a sense of belonging to the teaching profession, the image of the profession, the image of a professional, the development of the skills of future teachers to determine plans for the professional future and ways of their implementation, professional and pedagogical reflection and understanding of the received experience in the context of personal, professional and life goals. Experimental verification of the specified stages confirmed the effectiveness of the developed model and the stage of its implementation. Prospects for further research provide for the systematic implementation of the proposed approaches to the principles, methods and means of forming EPIFT during the next years of study.

#### ЛІТЕРАТУРА

- Андрієвська-Семенюк, О. П. (2020). Формування професійної ідентичності майбутніх психологів. *Вісник ЛДУБЖД*, 21, 102-106. DOI: 10.32447/20784643.21.2020.12 (Andriievvska-Semieniuk, O. P. (2020). Formation of Professional Identity of Future Psychologists. *Bulletin of LDUJBD*, 21, 102-106. DOI: 10.32447/20784643.21.2020.12)
- Антонова, О. Є. (2015). Педагогічні технології та їх класифікація як наукова проблема. *Сучасні технології в освіті. Ч. 1. Сучасні технології навчання*. Київ (Antonova, O. Ye. (2015). Pedagogical Technologies and their Classification as a Scientific Problem. *Modern Technologies in Education. Part 1. Modern Learning Technologies*. Kyiv).

- Карикаш, В. (2009) Пять вершин на жизненном пути: терапия посредством трансформации экзистенциальной идентичности. *Позитум Украина*, 3, 11–22 (Karykash, V. (2009). Five Peaks on the Life Path: Therapy through the Transformation of Existential Identity. *Positum Ukraine*, 3, 11–22).
- Коваленко, Н. В. (2021). *Формування ранньої професійної ідентифікації майбутніх учителів засобами проектно-тренінгових технологій: теорія та методика*. Суми: ФОП Цьома С.П. (Kovalenko, N. V. (2021). *Formation of Early Professional Identification of Future Teachers through Project-Training Technologies: Theory and Methodology*. Sumy: FOP Tsioma S.P.)
- Коваленко, Н. В. (2022). Методологічна модель дослідження проблеми формування ранньої професійної ідентичності майбутніх учителів у системі професійно-педагогічної підготовки в закладах вищої освіти. *Педагогічні науки: теорія, історія, інноваційні технології*, 4 (116), 80–98 (Kovalenko, N. V. (2022). Methodological Model of Research on the Problem of Formation of Early Professional Identity of Future Teachers in the System of Vocational and Pedagogical Training in Higher Education Institutions. *Pedagogical Sciences: Theory, History, Innovative Technologies*, 4 (116), 80–98).
- Коваленко, Н. В. (ред.). (2017). *Тиждень толерантності: проект школи та університету: методичні рекомендації*. Суми: ФОП Цьома С.П. (Kovalenko, N. V. (Ed.). (2017). *Tolerance Week: School and University Project: Methodical Recommendations*. Sumy: FOP Tsioma S.P.)
- Коваленко, Н. В. (ред.). (2019). *Медіаграмотний Я і Ти: проект школи та університету: методичні рекомендації до організації виховного тижня*. Суми: ФОП Цьома С.П. (Kovalenko, N. V. (Ed.). (2019). *Media Literate Me and You: School and University Project: Methodical Recommendations for Organizing an Educational Week*. Sumy: FOP Tsioma S.P.)
- Коваленко, Н. В. (ред.). (2021). *STEM освіта в дії: проект школи та університету: методичні рекомендації до організації виховного тижня*. Суми: ФОП Цьома С.П. (Kovalenko, N. V. (Ed.). (2021). *STEM Education in Action: School and University Project: Methodical Recommendations for Organizing an Educational Week*. Sumy: FOP Tsioma S.P.)
- Coleman, I. C. (1974). *Relationships in adolescence*. L.: Routledge & Kegan Paul.
- Ericson, E. (1968). *Identity, youth and crises*. Michigan: Eerdmans.
- Kovalenko, N. V. (2021a). Experimental verification of the effectiveness of the structural-functional model of the pedagogical system of future teachers' early professional identity formation in higher education institutions by means of project-training technologies. *Педагогічні науки: теорія, історія, інноваційні технології*, 4 (108), 234–245.
- Kovalenko, N. V. (2021b). Theoretical substantiation of the structural-functional model of forming future teachers' early professional identity by means of project-training technologies. *Педагогічні науки: теорія, історія, інноваційні технології*, 2 (106), 264–275.
- Matteson, D. R. (1975). *Adolescence today. Sex roles and the search for identity*. Homewood (Ill): Dorsey Press.
- Super, D. E. (1957). *Vocational development*. N.-Y.
- Tajfel, H. (1982). *Social identify and intergroup relations*. Cambridge: University Press.
- Waterman, A. S. (Eds.) (1985). *Identity in adolescence: Processes and contents*. San Francisco-L: Jossey-Bass.

## АНОТАЦІЯ

**Коваленко Наталія.** Етапи формування ранньої професійної ідентичності майбутніх учителів засобами проєктно-тренінгових технологій у системі професійно-педагогічної підготовки закладів вищої освіти.

*Професійна ідентичність майбутнього фахівця емоційно-позитивне прийняття майбутнім учителем своєї приналежності до професійного навчання на ранніх етапах професійного навчання, забезпечує ґрунтовне, більш усвідомлене опанування професією, активність майбутнього вчителя у професійному становленні, побудові перспектив професійного саморозвитку. **Мета статті** передбачала дослідження етапів розвитку персональної, соціально, професійної ідентичності, виділення та обґрунтування етапів формування ранньої професійної ідентичності майбутніх вчителів (РПІМУ) в системі професійно-педагогічної підготовки. **Методи дослідження:** теоретичні – категоріально-термінологічний аналіз, порівняння, узагальнення, систематизація, системний, структурно-логічний аналіз – з метою визначення та обґрунтування етапів формування РПІМУ; моделювання – для розроблення й теоретичного обґрунтування структурно-функціональної моделі педагогічної системи формування РПІМУ засобами проєктно-тренінгових технологій; прогнозування – для побудови структури педагогічної системи, уточнення взаємозв'язків та інтеграції її складових; емпіричних: опитування, спостереження, узагальнення педагогічного досвіду викладачів, діагностування, самоаналіз, самоспостереження, метод аналізу продуктів діяльності – з метою експериментальної перевірки виокремлених етапів педагогічної системи формування РПІМУ. **Результати дослідження, практичне значення дослідження.** Структурно-функціональну модель педагогічної системи формування РПІМУ реалізовано за такими етапами: рефлексивного занурення, теоретичного моделювання, практичної апробації, професійного прогнозування. Етапи формування ранньої професійної ідентичності майбутніх учителів урахували індивідуальну і соціальну природу ідентичності та забезпечують формування у студентів відчуття приналежності до педагогічної професії, образу професії, образу професіонала, розвиток умінь майбутніх учителів визначати плани професійного майбутнього і способи їх реалізації, професійно-педагогічної рефлексії і осмислення отриманого досвіду в контексті особистісно-професійних і життєвих цілей. Висновки з проведеного дослідження. Експериментальна перевірка означених етапів підтвердила ефективність розробленої моделі і етапи її реалізації. Перспективи подальших досліджень передбачають системну реалізацію запропонованих підходів принципів, методів і засобів формування РПІМУ протягом наступних років навчання.*

**Ключові слова:** вища освіта, ідентичність, кризи ідентичності, професійна підготовка вчителя, рання професійна ідентичність майбутнього вчителя, етапи розвитку ідентичності майбутнього вчителя, навчально-науковий педагогічний проєкт, проєкт школи і університету.