

Developing Professional Subjectivity in Future Primary School Teachers in the Context of a Neuropedagogical Approach

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Abstract: *Future primary school teachers can feel their subjectivity and dive into the culture of learning activity as a basis for developing the main features of learning and professional subjectivity starting from the first classes in higher pedagogical educational institutions. The paper aims to scientifically and theoretically justify and experimentally verify some pedagogical conditions and methodologies for developing professional subjectivity in future primary school teachers, taking into account a neuropedagogical approach. Also, it substantiates the main pedagogical condition, that is, professional training should imply mastering the psychological structure of pedagogical activity in primary school and cultivating creative personality as the subject of this activity. It requires full compliance with certain pedagogical conditions. The latter should comply with neurophysiological characteristics of the participants in the educational process. The paper proves the effectiveness of these pedagogical conditions based on the questionnaire aimed at determining the effectiveness criteria for professional self-determination in higher education institutions, the diagnostic-related professional readiness methodology, the motivation towards higher education study methodology, the diagnostic of the structure of work motives methodology. The paper experimentally proves that their educational subjectivity is a manifestation of one's capacity for subjective self-transformation in the learning activity, and pedagogical subjectivity represents the final stage of professional training and completion of pedagogical education, which acts as both synthesis and transformation of many invariant and variant subjective personality traits of students in the professionally important quality of the teacher, among which professional subjectivity is an integral one. EG respondents have shown better results in terms of levels of subjective qualities than CG respondents.*

Keywords: *pedagogical conditions; higher pedagogical education institution; methodology; subjective self-transformation; personality traits of students; neuropedagogy; neuropsychology.*

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Introduction

One of the leading goals of pedagogical education is to develop students as the subjects of learning and future pedagogical activity. However, an analysis of scientific sources on the problems of psychology and pedagogy of higher education and relevant research findings show that university teachers and students are still perceived as both the subjects and objects of the educational process in higher pedagogical educational institutions. This situation is unacceptable concerning future primary school teachers, who need to feel their subjectivity and dive into the culture of learning activity as a basis for developing the main features of learning and professional subjectivity starting from the first classes in higher pedagogical educational institutions.

The subjectivity of future primary school teachers as their integral professionally important quality is developed during higher education study. According to the subject- and activity-oriented approach to professional training, it is related to their learning activity, comprehension of its goals and results, as well as the meaningful perception of values and means of future pedagogical activity. As evidenced by the achievements of neuropsychology, the acquisition of subjectivity lies in the fact that a person is understood as a neuropsychological subject who has the potential to act, develop himself or herself and incorporate socio-cultural experience in natural data, namely, become a product of natural and social progress (Glozman, 2012, p. 31).

Thus, the acquisition of subjectivity and the consolidation of the subject of activity becomes the leading methodological principle of modern psycho-pedagogical concepts, neuropedagogical and neuropsychological research. An analysis of psycho-pedagogical theses shows that the theory and practice of higher pedagogical education accumulate considerable experience which can become the basis of the pedagogical system for developing professional subjectivity in future primary school teachers. In this regard, one should rely on theoretical and methodical principles of their professional training (Bondar, 1996; Husak, 1999; Khomych, 1999; Kucheriaviy, 2002; Lytvynenko, 2005). Luriya's neuropsychological theory, which is thoroughly subjective, seems to be the leading one. Moreover, the subjectivity of a person is represented as his or her natural activity and socialization, as a result of which he or she acquires a social "self", without detaching from nature (Luriya, 2003). Different aspects of the problem under study are covered in the works of many scholars (Bakhmat et al., 2019; Behas et al., 2019; Bezliudnyi et al., 2019; Gerasymova et al., 2019; Halaidiuk et al., 2018; Kaletnik, et al., 2011; Maksymchuk et al., 2018;

Melnyk et al., 2019; Nerubasska & Maksymchuk, 2020; Petrova, 2017; Podlinyaev & Mornov, 2015; Sheremet et al., 2019; Sitovskiy et al., 2019).

At the same time, an analysis of professional training of future primary school teachers shows that the process of developing their professional competency is characterized by certain contradictions between the need for well-developed professionally important qualities of future primary school teachers (autonomy, creativity, tolerance, accurate self-esteem, the objective professional self-concept, self-reflection, self-determination and self-regulation of their pedagogical activity in primary school) required for successful pedagogical activity and insufficient attention to their development while studying psychological and pedagogical courses; certain fragmentation of subjective knowledge in the content of psychological and pedagogical courses in relation to pedagogical activity of future primary school teachers and the need for their comprehensive and systematic use in future pedagogical activity; the decisive influence of primary school teachers' professional subjectivity on pupils and insufficient attention to its develop while solving psycho-pedagogical problems. If one should generalize these contradictions, one reduces them to the conflict of phenomena analyzed in the framework of classical didactic (knowledge, influence, cultivation) and neuropedagogy (special identification, self-development, motivation).

Consequently, there appears to be a need to introduce personal natural needs and values, as well as the values of humanistic philosophy of education in the system of professional training of future primary school teachers, which will be based on the perception of teachers' and students' subjectivity in the educational process and its purposeful promotion using organizational-and-managerial and psycho-pedagogical measures. Therefore, it is essential to methodologically reconsider the theory and practice of their training, clarify its goals, content, methodologies, technologies and results, reinforce them with the real subjective meaning based on the neuropedagogical and neuropsychological phenomena of activities in primary school (the specifics of teacher's and student's subjectivity), provide the methodological system of such training with the subject- and activity-oriented methodologies and technologies, justify neuropedagogical and neuropsychological principles of developing their leading subjective qualities.

Thus, the topic of the research has been chosen, taking into account the relevance of developing professional subjectivity in future primary school teachers during professional training, its importance for neuropedagogical theory and practice and the presence of significant contradictions in their training.

The paper aims to scientifically and theoretically justify and experimentally verify the pedagogical conditions and methodologies for developing professional subjectivity in future primary school teachers, taking into account neuropsychological views on the personality of the primary school teacher and pupil.

Material and methods

Neuropedagogical conditions for developing professional subjectivity in future primary school teachers in the process of studying psycho-pedagogical courses are those conditions consciously created in the educational process and ensuring the establishment, development, formation, natural activity and higher neural activity of participants in the educational process, under which they develop as specialists. This paper substantiates the main pedagogical condition, that is, professional training should imply mastering the neuropsychological structure of pedagogical activity in primary school and cultivating creative personality as the subject of this activity. It requires the following: to develop their motivational sphere of professional self-determination within pedagogical education; to enhance the system of professional selection of applicants for pedagogical degrees; to develop their professional orientations towards pedagogical activity in the system of primary education; to update the content and improve methodologies of their professional training following the requirements of the humanistic philosophy of education, subject-, activity-oriented and competency-based approaches, as well as primary school teachers' vocation; to focus their psycho-pedagogical training on developing professional subjectivity and other professionally important qualities; to prepare future primary school teachers for the subject-subject pedagogical interaction in the educational environment of primary school.

These conditions ensure the sequence of developing subjectivity in future primary school teachers: first, the subject of learning activity, which results in educational subjectivity and, second, professional subjectivity as the subject of pedagogical activity in primary school.

The justified methodology for developing professional subjectivity in future primary school teachers is aimed at realizing such its neuropsychological components as professional identity, professionalism, praxeological and subjective components, which determine the nature of its subjective-and-pedagogical development as a prospective subject of pedagogical activity. This methodology involves certain stages, which starts from the axiological-and-motivational stage and ends with the acquisition of professional subjectivity.

Given the understanding of professional training as a combination of neuropsychological (both the process and results of biosocial development) and technological (the use of didactic tools) factors, one distinguishes the following stages of developing subjectivity during the diagnostic-and-formative experiment.

Stage 1 (professional identity) regulates how future primary school teachers obtain pedagogical education, determines its meaning and contributes to developing their “professional image as a primary school teacher”. According to neuropsychological theories, a person acquires a number of natural, natural-and-social and social identities throughout life. Professional self-identity as a biosocial component of personality is developed due to such courses as “Introduction to the Profession”, “General Psychology”, “General Principles of Pedagogy”, “Developmental Psychology”, “Theory of Education”. This stage results in the development of positive ideas about the teaching profession, the specifics and goals of teaching in primary school, as well as the realization of the need to comprehend the culture of learning activity for personal and professional development.

Stage 2 is devoted to developing educational subjectivity, that is, creating a system of psycho-pedagogical knowledge about the educational process in primary school and primary school pupils as the main subjects of this process. This process is facilitated by the study of such courses as “Didactic of Primary School”, “Methods of Educational Work”, “Pedagogical Psychology”, “The History of Pedagogy”, “Teaching Placement in Primary School” and “Methods of Teaching Mathematics”. At this stage, students learn the basic neuropsychological aspects of development and mental activity of primary school pupils, which are dominated by age-related biosocial factors. The result of the first two stages is the well-developed educational subjectivity of students.

Stage 3 is directed at creating the image of primary school teachers’ actions. Its result implies developing the system of psycho-pedagogical knowledge and practical skills and abilities for educational work with primary school pupils, professionally important qualities and introducing the system of research activities in higher education. The main methods include solving quasi-professional tasks, business games, teaching placements, term-papers within such courses as “School Studies”, “Fundamentals of Scientific and Pedagogical Research”, “Methods of Teaching Ukrainian in Primary School”, “Methods of Teaching Mathematics in Primary School”, “Psycho-Pedagogical Problems of the Modern Lesson”, “The Human and the World, (Including Teaching Methods)”, “Method of Expressive Reading”,

“Methods for Developing Coherent Speech”. Quasi-professionalism is one of the main neuropedagogical phenomena in working with pupils who acquire their first skills of socialization and do not completely separate learning from playing, conscious activity from spontaneous one.

Stage 4, developing thought-patterns in future primary school teachers, results in the well-developed professional skills and abilities required for practical work with primary school pupils and readiness to use methods of teaching some specific subjects in primary school, namely, the practical formation of *the I am a primary school teacher image* and the early expression of *the I myself as the subject of pedagogical activity in primary school image*. The following applied courses are studied for this purpose: “Methods of Teaching Natural History in Primary School”, “Methods of Teaching Handicrafts in Primary School”, “Methods of Teaching Calligraphy in Primary School”, “Methods of Teaching Fine Arts in Primary School”, “Teaching Placement “Mock Lessons”, “Music Teaching Methods”, “Valeology Teaching Methods”, “Assessing Educational Attainment in Primary School”, “Pedagogical Skills”, “Methods of Physical Education in Primary School”, “Methods of Teaching Mother Tongue in a Multicultural Environment”. These courses help to develop practical skills and abilities required for the organization and implementation of the basic methods, technologies and forms of pedagogical activities in primary school, which are incorporated in teaching placements (e.g., “Children’s First Days at School”), continuing teaching placements and term-papers on teaching methods in primary school. The results of all four stages can be checked during the state complex exam on teaching pedagogy in primary school.

Stage 5 which seeks to create the self-image as the subject of pedagogical activity in primary school is targeted at fostering professional self-determination of primary school teachers and developing their styles of pedagogical activity. It covers such courses as “Professional and Personal Development of Teachers”, “Organizing the Educational Process in After-School Centres”, “Organizing the Educational Process with Six-Year-Olds”, “Methods of Social and Educational Work under Modern Conditions”, “Managing the Educational Process in Secondary School”, “Methods of Teaching Christian Ethics”. The practical results of this stage are consolidated during pedagogical pre-degree practice and defence of dissertations. This is a stage of the relatively final development of professional self-image and skills in the subject-subject interaction. It corresponds to the key position of neuropedagogy: the organization of optimal acts and processes of mutual assistance and interaction between the subjects based on a personality-oriented approach. The teacher, and later the

pupils, start to realize that they are the subjects and the main resource of their development.

A total of 472 students participated in the ascertaining and formative experiments. The ascertaining experiment was conducted at Yuriï Fedkovych Chernivtsi National University (103 respondents), Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University (41 respondents), Kherson State Maritime Academy (125 respondents), Pervomaisk Branch of Admiral Makarov National University of Shipbuilding (148 respondents), Communal Higher Educational Institution (CHEI) “Vinnytsia Academy of Continuing Education”, Vinnytsia, Ukraine (55 respondents).

The formative experiment was conducted at: “Junior School Teacher” (Communal Higher Educational Establishment “Kherson Academy of Continuing Education” of Kherson Regional Council) and “Primary School Teacher” (Yuriï Fedkovych Chernivtsi National University), including students in Year 1 (14 respondents), Year 2 (66 respondents), Year 3 (51 respondents) and Year 4 (32 respondents). The following indicators have been accepted as *the main ones* to prove the effectiveness of the neuropedagogical pedagogical conditions for developing professional subjectivity in future primary school teachers in the process of studying psycho-pedagogical courses: motivation in choosing the teaching profession (the motivational criterion); awareness of the existing professions and ability to correlate this information with one's aptitudes, professional prospects, potential and real opportunities (the cognitive criterion); ability to decide on pursuing the teaching profession; ability to implement the decision on pursuing the teaching profession; ability to plan one's professional life as the subject of pedagogical activity in primary school (the activity-related criterion); emotional involvement in the decision-making (the emotional-and-volitional criterion); autonomy in professional activity (the activity-related and behavioural criterion). These indicators can be measured using the questionnaire aimed at determining the effectiveness criteria for professional self-determination in higher education institutions, the diagnostic-related professional readiness methodology, Ilina's methodology (Klochko, 2003), the motivation towards higher education study methodology (Klochko, 2003) and the diagnostic of the structure of work motives methodology (Ilyin, n.a.).

Results

The systematized and summarized results obtained during a theoretical analysis and experimental work, as well as the processed experimental data, are given in Tables 1 and 2.

Table 1. The dynamic of developing professional subjectivity in future primary school teachers (%)

Before the experiment						After the experiment					
CG			EG			CG			EG		
Levels											
high	average	low	high	average	low	high	average	low	high	average	low
Autonomy											
38.6	19.5	41.9	34.8	24.0	41.2	38,0	28.9	33.1	50.8	38.9	10.3
Awareness											
32.2	25.8	42.0	25.8	27.5	41.9	41,9	38.9	19.2	49.7	41.3	9.0
Decision-making											
44.7	44.5	10.8	41.4	42.8	15.8	47,7	48.3	4.0	52.0	45.3	2.7
Planning											
28.8	39.3	31.9	23.7	39.3	37.0	35,9	48.7	15.4	40.2	52.2	7.6
An emotional attitude											
30,7	40.6	28.7	31.3	40.4	28.3	36,6	42.3	21.1	39.6	41.1	19.4

The results of the formative experiment prove the validity of neuropsychological and neuropsychological approaches and confirm the research hypothesis since the respondents of experimental groups (EG) are at higher levels of subjective qualities than the respondents of control groups (CG). Indeed, the data on the motivational sphere of EG students obtained after the formative experiment indicate significant positive changes (see Table 2). The importance of internal motives (gaining relevant knowledge, acquiring a valuable profession, developing) for students' learning activity significantly increases, whereas the indicators of external motives (completing a degree) decrease. The main motivation is to acquire a valuable profession and gain knowledge.

Table 2. The dynamic of motivation towards obtaining pedagogical education by future primary school teachers in higher education institutions (%)

Higher education institutions	Before the experiment						After the experiment					
	CG			EG			CG			EG		
	gaining knowledge	acquiring a valuable profession	completing a degree	gaining knowledge	acquiring a valuable profession	completing a degree	gaining knowledge	acquiring a valuable profession	completing a degree	gaining knowledge	acquiring a valuable profession	completing a degree
Yurii Fedkovych Chernivtsi National University	30.8	31.4	37.8	29.5	32.4	38.1	34.7	37.2	28.1	39.1	50.0	10.9
Communal Higher Educational Establishment “Kherson Academy of Continuing Education” of Kherson Regional Council	34.6	33.3	32.1	28.2	38.3	33.5	37.0	43.3	19.7	44.4	47.0	8.6
Total	32.7	32.4	34.9	28.9	35.3	35.8	35.8	40.2	23.9	41.7	48.5	9.8

The experimental research has allowed implementing a hierarchy of goals for their training; verifying the main stages of developing professional subjectivity in primary school teachers and proving the effectiveness of the pedagogical conditions.

Discussion

The scientific value of the obtained results is as follows:

– for the first time, the neuropedagogical conditions for developing professional subjectivity in future primary school teachers in the system of pedagogical education (developing their motivational sphere of professional self-determination within pedagogical education; enhancing the system of professional selection of applicants for pedagogical degrees; developing their professional orientations towards pedagogical activity in the system of primary education; updating the content and improving methodologies of their professional training in accordance with the requirements of the humanistic philosophy of education, subject-, activity-oriented and competency-based approaches, as well as primary school teachers' vocation; focusing their psycho-pedagogical training on developing professional subjectivity and other professionally important qualities; preparing future primary school teachers for the subject-subject pedagogical interaction in the educational environment of primary school) has been justified;

– the content of the “professional subjectivity of future primary school teachers” concept has been improved, which lies in justifying it as an integral professionally important quality, clarifying the main manifestations of professional subjectivity (understanding the essence, requirements and specifics of pedagogical activity in primary school and their perception; the professional self-concept in pedagogical activity; the subjective position at all stages of acquiring pedagogical education and professionalization; recognizing the teaching profession as the main way of self-actualization) and specifying its essential characteristics (activity, productivity, integrity and systematicity of primary school teachers' subjective properties, qualities and manifestations in pedagogical activity, awareness and perception of not only of their social and professional subjectivity but primary school pupils' subjectivity);

– the goals, functions and content of primary school teachers' pedagogical activity, taking into account its main feature, which lies in directing the pupil's activity towards developing his or her educational subjectivity through gaining educational autonomy during learning activity and teaching him or her to consciously and purposefully manage and regulate their learning activity, have been enhanced;

– the methodology for developing professional subjectivity in future primary school teachers in the process of studying psycho-pedagogical courses, which allows developing them as the subjects of their mental activity, the subjects of learning activities, the subjects of quasi-pedagogical

activity and the subjects of pedagogical activity in primary school, has been further developed. It ensures the subject-subject interaction between university teachers and students, stimulating students' subjective manifestation in the learning activity through the subject- and activity-oriented and problem-based methods, methodologies and technologies of professional training, the subjective focus of psycho-pedagogical courses, as well as the actualization and development of their professional subjectivity as future primary school teachers.

The practical value of the obtained results lies in implementing the main provisions of the research in professional training of future primary school teachers and textbooks, titled "The Fundamentals of Psychology and Pedagogy" and "Seminars on the Course on the Fundamentals of Psychology and Pedagogy".

The findings can also be used by university teachers when developing educational and methodical textbooks and didactic materials for studying psycho-pedagogical courses.

The main ideas and provisions of this research primarily relate to a neuropsychological nature of the student's personality in higher pedagogical education institutions, who must first become the subjects of learning activity since it is impossible to develop their professional subjectivity as teachers without it. An analysis of relevant scientific sources shows that one of the main features of students as the subject of learning activity is his striving for self-awareness, conscious self-changes and improvement of cognitive motives while perceiving the goals and content of learning activity, as well as the knowledge and purposeful actualization of their intellectual abilities during this activity. In turn, it requires that they should be able to reflect and self-reflect on their learning activity and its developed culture which are necessary to solve the contradiction between the available opportunities of students and those necessary for their successful learning activity. Such a conscious activity is important for any student, and it is extremely essential for primary school teachers since understanding the goals, content, methods and results of their learning activity helps them to organize learning activity of primary school pupils, develop their culture of learning and, most importantly, teach them to learn and develop its motivational component for the future.

A study of the problems of the subject and subjectivity in philosophical, neuropsychological and neuropedagogical sciences allows drawing the following conclusions: 1) the subjective concerning primary school teachers means what belongs to them as the subjects of pedagogical activity; 2) accordingly, the teacher's personality is the bearer of the

subjective, whose identity is manifested in creativity and professional subjectivity – in the original professional “self”, uniqueness and creativity in teaching and his or her creative style.

Professional subjectivity of primary school teachers is their integral and professionally important quality, whose main manifestations are professional self-determination as the subject of pedagogical activity in primary school, ability and readiness for pedagogical activity and autonomy in it, as well as the subjective behaviour and activities when performing professional functions. It can be developed in the following areas: the subject of his or her mental activity; the subject of learning activity; the subject of quasi-pedagogical activity; the subject of pedagogical activity in primary school.

Nowadays, the primary school teacher should act as an instructor, teacher and organizer of the educational process in the classroom and pupils’ activities, as an active subject of interpersonal interaction and communication with pupils and their parents, colleagues, as a researcher of the educational process, an enlightener and a public figure. His or her main feature is the result of his or pedagogical activity, that is, the subjectivity of pupils in the learning activity and a high level of social subjectivity. In this regard, the main specifics of primary school teachers’ pedagogical activity are related to children and their age characteristics since primary school pupils are directly dependent on adults at home and teachers at school. Consequently, the hierarchy of primary school teachers’ tasks is as follows: to focus their activities on developing educational subjectivity in pupils by their gaining educational autonomy while learning the basics of learning culture and teaching them to manage and regulate their learning consciously and purposefully. The next specific feature of primary school teachers’ pedagogical activity consists in the fact that their functions are much broader than those of subject teachers. They act as class managers, familiarize pupils with the educational environment, teach various subjects, develop the meaning and motivation towards learning and their positive attitude to school and learning activity. Therefore, their professionally important qualities, which include intellectual, emotional, volitional, communicative, universal, personal and specific ones, should be well-developed. Their specific qualities include the following: the focus on pedagogical work with primary school pupils; the ability to make learning material accessible to them; imaginative and, at the same time, practical thinking; empathy and pedagogical intuition; pedagogical observation and pedagogically expedient immediacy and emotionality; special warmth and parental kindness in their attitude to pupils.

Both the peculiarities and specifics of primary school teachers' neuropedagogical activity are manifested in its structure. The requirements for their personality are defined as follows: self-reflection, self-determination and self-regulation of one's behaviour, autonomy in pedagogical activity; general cultural, general scientific, general professional and professional competencies; accurate self-esteem; mental stability and endurance; high general and professional intelligence, well-developed theoretical and practical thinking; capacity for development, self-development and self-improvement in pedagogical activity and proactivity; the positive professional self-concept; ability to purposefully prove and defend one's subjectivity, realize and perceive the subjectivity of primary school pupils who need to defend their self. Both the understanding of these requirements and their perception form the basis for their professional subjectivity, which can be defined as a complex functional autonomous system. It is formed at the stage of acquiring pedagogical education and is developed, improved and transformed during pedagogical activity. Professional subjectivity as self-development, self-determination and self-organization is realized through an active conscious attitude to oneself, various objects, other people, pedagogical activity and, most importantly, primary school pupils. The essential characteristics of primary school teachers as the subjects of creative pedagogical activity are activity, productivity, integrity, integrity and systematicity of subjective properties, qualities and manifestations, as well as awareness and perception of not only their social and professional subjectivity but, primarily, of their pupils.

Conclusions

Analyzing the coverage of the problem under study in the philosophical, psychological and pedagogical literature, one can conclude that it is a multifaceted problem, which has not been properly studied in the neuropedagogical aspect. An analysis of developing professional subjectivity in future primary school teachers indicates a gap between theory and practice of studying subjectivity and individual levels, subjective properties and traits of personality, their interconnection and interdependence with teachers in modern pedagogy and psychology. Indeed, the subjective of primary school teachers means what belongs to them as the subjects of the neuropedagogical activity, which is manifested in their individuality, whereas professional subjectivity is manifested in the professional self, the original professional "self", uniqueness and creativity in teaching and autonomy in it.

Professional subjectivity of primary school teachers is their integral and professionally important quality, whose main manifestations are professional self-determination as the subject of pedagogical activity in primary school, ability and readiness for pedagogical activity and autonomy in it, as well as the subjective behaviour and activities when performing professional functions. It can be developed in the following areas: the subject of his or her mental activity; the subject of learning activity; the subject of quasi-pedagogical activity; the subject of pedagogical activity in primary school. It is realized through an active conscious attitude to oneself, various objects, other people, pedagogical activity and, most importantly, primary school pupils. The essential characteristics of primary school teachers as the subjects of creative pedagogical activity are activity, productivity, integrity, integrity and systematicity of subjective properties, qualities and manifestations, as well as awareness and perception of not only their social and professional subjectivity but, primarily, of their pupils.

The paper proves that the 21st century urges the primary school teacher to act as an instructor, teacher and organizer of the educational process in the classroom and pupils' activities, as an active subject of interpersonal interaction and communication with pupils and their parents, colleagues, as a researcher of the educational process, an enlightener and a public figure. His or her main feature is the result of his or pedagogical activity, that is, the subjectivity of pupils in the learning activity and a high level of social subjectivity. The main specifics of primary school teachers' pedagogical activity are related to children and their age characteristics, which determines the following hierarchy of primary school teachers' tasks: to focus their activities on developing educational subjectivity in pupils by their gaining educational autonomy while learning the basics of learning culture and teaching them to manage and regulate their learning consciously and purposefully. Therefore, primary school teachers should have specific qualities (the focus on neuropedagogical work with primary school pupils; the ability to make learning material accessible to them; imaginative and, at the same time, practical thinking; empathy and pedagogical intuition; pedagogical observation and pedagogically expedient immediacy and emotionality; special warmth and parental kindness in their attitude to pupils) and professional subjectivity (self-reflection, self-determination and self-regulation of one's behaviour, communication and pedagogical activity; autonomy in pedagogical activity; accurate self-esteem; pedagogical proactivity; the positive professional self-concept; ability to purposefully prove and defend one's subjectivity, realize and perceive the subjectivity of primary school pupils).

The paper proves that the neuropedagogical conditions for developing professional subjectivity in future primary school teachers in the process of studying psycho-pedagogical courses are those conditions consciously created in the educational process and ensuring its development. Besides, it justifies the main neuropedagogical condition, that is, professional training should imply mastering the psychological structure of pedagogical activity in primary school and cultivating creative personality as the subject of this activity. It requires the following: to develop their motivational sphere of professional self-determination within pedagogical education; to enhance the system of professional selection of applicants for pedagogical degrees; to develop their professional orientations towards pedagogical activity in the system of primary education; to update the content and improve methodologies of their professional training following the requirements of the humanistic philosophy of education, subject-, activity-oriented and competency-based approaches, as well as primary school teachers' vocation; to focus their psycho-pedagogical training on developing professional subjectivity and other professionally important qualities; to prepare future primary school teachers for the subject-subject pedagogical interaction in the educational environment of primary school.

The methodology for developing professional subjectivity in future primary school teachers in the process of studying psycho-pedagogical courses as a set of the main goals, objectives and stages of developing professional subjectivity based on subject-, activity-oriented and competency-based approaches has been improved. It is aimed at developing professional identity, professionalism, praxeological and subjective components of professional subjectivity of future primary school teachers as the main stages of their "self-image in teaching", which gradually moves from the ideal sphere of consciousness and sub-consciousness to the practical sphere: the professional image as a primary school teacher → the image of the profession → the image of the action → the image of thinking → the self-image as the subject of pedagogical activity in primary school.

The neuropedagogical conditions and methodology for developing professional subjectivity in future primary school teachers in the process of studying psycho-pedagogical courses have been experimentally verified. The formative experiment has made it possible to check the influence of these pedagogical conditions and methodology on the motivational, cognitive, activity-related, emotional-and-volitional and activity-related and behavioural criteria for assessing the level of professional subjectivity.

The conducted experiment confirms that the educational subjectivity of future primary school teachers manifests the capacity for subjective self-

transformation in the learning activity. At the same time, pedagogical subjectivity is the final stage of professional training and acquisition of pedagogical education, which is a synthesis and transformation of many invariant and variant subjective properties of the student's personality in professionally important qualities of the teacher, including integral professional subjectivity. It must be noted EG respondents showed better results in the level of students' subjective qualities than CG respondents.

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